

環境用藥安全管理執行計畫

EPA-100-J102-02-201

行政院環境保護署編印

(定稿本)

受託單位：環資國際有限公司

計畫執行期間：100 年 2 月 15 日至 100 年 12 月 31 日

計畫經費：新台幣貳佰壹拾陸萬元整

計畫主持人：簡滢珊

執行人員：黃義芳 倪雅惠 林宓姮 簡滢珊

黃柏鈞 顏敬秦

中華民國 100 年 12 月 印製

「環境用藥安全管理執行計畫」

期末報告基本資料表

甲、委辦單位	行政院環境保護署毒管處			
乙、執行單位	環資國際有限公司			
丙、年 度	100 年	計畫編號	EPA-100-J102-02-201	
丁、研究性質	☐ 基礎研究	☐ 應用研究	☒ 技術發展	
戊、研究領域				
己、計畫屬性	☐ 科技類	☒ 非科技類		
庚、全程期間	<u>100</u> 年 <u>2</u> 月 ~ <u>100</u> 年 <u>12</u> 月			
辛、本期期間	<u>100</u> 年 <u>2</u> 月 ~ <u>100</u> 年 <u>12</u> 月			
壬、本期經費	<u>新台幣貳佰壹拾陸萬元整</u>			
	資本支出	經常支出		
	土地建築_____千元	人事費 <u>1633</u> 千元		
	儀器設備_____千元	材料費_____千元		
	其 他_____千元	其 他 <u>527</u> 千元		
癸、摘要關鍵詞（中英文各三則） 環境用藥、環境用藥使用宣導、環境用藥技術研討會與實驗室參訪 Environmental agent, publicity on the use of environmental agents, environmental agent technology conference and laboratory visit.				
參與計畫人力資料：（如謹代表簽約而未參與實際研究計畫者則免填以下資料）				
參與計畫 人員姓名	工作要項 或撰稿章節	現職與 簡要學經歷	參與時間 （人月）	聯絡電話及 e-mail 帳號
黃義芳	預算掌控及計畫 方向擬定	環資公司總經理/ 成大環工所碩士	1	02-66308000 分機 201 ng@eri.com.tw
倪雅惠	計畫執行進度及 流程品保品管	環資公司副總經理/ 台大環工所碩士	1	02-66308000 分機 202 CherishNi@eri.com.tw
林宓姮	計畫品保品管	環資公司環工部工程師 /逢甲大學環工系	5	02-66308000 分機 220 annymimi23@eri.com.tw
簡澄珊	計畫品保品管	環資公司環工部工程師 /嘉藥科技大學環科系	11	02-66308000 分機 340 ru013@eri.com.tw
黃柏鈞	負責計畫執行及 聯絡溝通協調	環資公司環工部工程師 /國立台灣大學城鄉所 博士在職班	3	02-66308000 分機 340 706h.b.c@eri.com.tw
顏敬秦	負責計畫執行及 聯絡溝通協調	環資公司環工部工程師 /國立中央大學碩士	3	02-66308000 分機 220 gugujean@eri.com.tw

行政院環境保護署計畫成果中英文摘要（簡要版）

- 一、中文計畫名稱：
環境用藥安全管理執行計畫
- 二、英文計畫名稱：
Project on the Management of Environmental Agent Safety
- 三、計畫編號：
EPA-100-J102-02-201
- 四、執行單位：
環資國際有限公司
- 五、計畫主持人（包括共同主持人）：
簡澄珊
- 六、執行開始時間：
100/02/15
- 七、執行結束時間：
100/12/31
- 八、報告完成日期：
100/12/31
- 九、報告總頁數：
721 頁
- 十、使用語文：
中文，英文
- 十一、報告電子檔名稱：
EPA100J10202201.zip
- 十二、報告電子檔格式：
PDF
- 十三、中文摘要關鍵詞：
環境用藥、宣導、環境用藥技術研討會、實驗室參訪
- 十四、英文摘要關鍵詞：
Environmental agent, publicity, environmental agent technology conference, laboratory visit.
- 十五、中文摘要（約三百至五百字）
本年度計畫著重於環境衛生用藥安全使用管理執行及推廣，針對環境用藥安全使用系統進行資料更新與改版，以達到環境衛生用藥宣導成效；此外規劃環境用藥徵圖比賽，搭配宣導活動進行宣導品製作藉以增加曝光度，同時協助辦理環境衛生用藥技術應用研討會，將國內環境用藥推至國際視野；並於國際法規部分持續收集各國相關環境用藥管理資訊，加以分析評估與國內之差異部分，以完整國內於環境用藥使用管理趨勢。
本計畫完成工作重點工作包括：
 1. 收集歐盟、美國、亞洲地區國際間環境用藥管理最新法令調查評析，並提出環境用藥管理建議採行措施。
 2. 建置新版安全使用環境用藥宣導系統，並增加兒童版網站，網站內容以注音文呈現，亦加入有關環境用藥如何購買宣導動畫，宣導網站依據時令置換五種版面。
 3. 完成辦理安全使用環境衛生用藥繪圖比賽，投稿件數總計 337 件，符合稿件共計 300 件。
 4. 完成辦理 2011 年環境用藥技術應用研討會，與會專家學者、環境用藥業者與民眾共計 123 人次參與。
 5. 完成參訪國內環境用藥藥效實驗室參訪，共計四間藥效實驗室及水

生生物實驗室參訪。

- 6.完成環境用藥安全使用性別研究調查問卷，有效問卷共計 101 份，並依據民眾於購賣產品劑型與使用方式等問題，進行性別差異度探討。

十六、英文摘要：

The project focused on the management and promotion of safe use of environmental agents. The website on the safe use of environmental agents was revamped and updated to facilitate greater publicity. A drawing contest on the theme of environmental agent was organized in conjunction with publicity activities and materials to gain more visibility. A conference on the application of environmental agent technologies was held to introduce international perspectives. Information on environmental agent management adopted by countries around the world was also collected and examined to identify differences in management practices between home and abroad and to thereby provide a comprehensive insight into trends in this respect.

The important tasks completed are described as follows:

- 1.The latest regulations for environmental agent management practiced in the European Union, the United States, and Asia countries were collected and analyzed to provide recommended management measures on environmental agents.
- 2.A new version of the website on the safe use of environmental agents was released. The new version includes a children's section presented in Mandarin Phonetic Symbols, and feature animations on how to buy environmental agents. Five homepage settings were available to match different seasons.
- 3.A drawing contest on the theme of safe use of environmental agents was held, receiving 337 entries, 300 of which were valid.
- 4.The 2011 Conference on Application of Environmental Agent Technologies was held with an attendance of 123, including experts and scholars, business operators in the industries involving environmental agents, and the general public.
- 5.Visits were paid to 4 domestic environmental agent laboratories or aquatic laboratories with a focus either on the effectiveness of environmental agents.
- 6.The Questionnaire on the Survey of Gender Differences in Safe Use of Environmental Agents was administered and received 101 valid responses. The valid copies were analyzed according to product dosage form and the way the product was used to identify sex differences with regard to environmental agents.

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計畫主持人(包括協同主持人)：簡澄珊

計畫期程：100 年 2 月 15 日起 100 年 12 月 31 日止

計畫經費：新台幣貳佰壹拾陸萬元整

中文摘要

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- 5.完成參訪國內環境用藥藥效實驗室參訪，共計四間藥效實驗室及水生生物實驗室參訪。
- 6.完成環境用藥安全使用性別研究調查問卷，有效問卷共計 101 份，並依據民眾於購賣產品劑型與使用方式等問題，進行性別差異度探討。

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前言

我國環境用藥管理法立法宗旨在於防止環境用藥危害，維護人體健康，保護環境，以確保環境用藥之安全、有效與品質為管理目標。環境用藥管理法中規定製造、加工或輸入環境用藥，應提出其名稱、成分、性能、製法之要旨、分析方法、毒理報告、藥效（效力）報告及有關資料或證件，連同標示及樣品向中央主管機關申請查驗登記，經核發許可證後始得製造、加工或輸入。

97 年度本計畫接手後著手建立各國法規收集架構，並完成製作及修正環境用藥有效成分原體中文毒理資料庫系統，並於 98 年製作禁用環境用藥有效成分原體中文資料，同年度辦理了環境用藥安全使用研習會並邀請環保署署長於電視媒體進行環境衛生用藥相關使用說明宣導論壇，共計 3.57 萬人次觀賞。99 年度本計畫於國際間環境用藥管管理規範，針對綠色化學提出環境用藥及毒化物之替代產品，亦收集美各國殺鼠劑、殺菌劑、防蚊劑、惰性成分等資訊，並針對殺鼠劑、防蚊劑則提出對國內現行制度的建議，完成環境衛生用藥管理及病媒防治技術研討會。

執行方法

宣導面：針對環境用藥安全使用系統進行資料更新及維護，提升網站內容活潑度，規劃環境用藥徵圖比賽，並搭配宣導活動並進行宣導品製作增加曝光度，達到全民皆可了解甚麼是環境用藥。

實務面：辦理環境用藥管理及病媒防治技術研討會，邀請專家學者針對環境用藥業者、地方環保人員與相關系所進行環境用藥防治實務推廣與意見交流；參訪國內藥效實驗室，檢視國內藥效實驗室目前所具有設備技術，擬定環境用藥藥效實驗室規範，藉以提升國內藥效實驗室設置規模。

制度面：提供國際間環境用藥許可管理法規之調查評析，以利環保署即時掌握國際間環境用藥的管理制度，作為環境用藥管理趨勢的參酌依據。

結 果

本計年度依據合約規範已完成各項工作之執行，例行性工作則持續至 100 年 12 月 31 日為止，已完成工作項目成果如下表。

工作項目	工作執行成果摘要說明	執行工作進度完成百分比(%)
(一)辦理歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥許可管理規定之調查評析		
1.收集並分析歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥管理之最新法令規定。	1.完成歐盟最新註冊之有效成分-殺鼠劑共計 39 項、殺菌劑共計 27 項 2.完成美國殺鼠劑產品四大類規範產品規格合格名單及新增 1 項殺菌劑有效成分 Amisulbrom 與 1 項殺蟲劑有效成分 Ethiprole 3.完成日本於建築物衛生環境法之註冊規定條件法規資料更新 4.完成大陸地區有害生物防治服務機構資質等級評定之實施辦法資料更新、中國衛生有害生物防治協會 PCO 綜合實力排行評定實施辦法	100
2.收集歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區有關環境用藥管理及其替代物之相關資訊，提出相關建議採行措施。	完成四種綠色產品資料收集： 美國 1.Chlorantraniliprole 殺蟲劑有效成分可取代除蟲菊精類、氨基甲酸酯與有機磷殺蟲劑，已取得美國 EPA 註冊之降低風險殺蟲劑且添加於美國之販賣產品中；2.VigorOx® Biocide 殺菌劑可取代戊二醛除菌劑，已取得專利與 EPA 註冊。 印尼 1.Mitol 20EC 殺菌劑之成分為天然之丁香酚與丁香酚酯，已取得專利與製造許可證； 2.Samro Biosida 殺菌劑之成分由植物提煉與微生物發酵而成。	100

3.針對現行環境用藥管理措施提出檢討及建議。	1.建議持續掌握國際公約之規範，並與國際接軌有關環境用藥之禁用之有效成分 2.建議加重環境用藥罰則，擬定環境用藥對於生態影響方面之規範 3.建議規範居家殺鼠劑產品規格，以降低殺鼠劑影響之風險，已達到保護家中孩童與寵物 4.建議提高我國於毒性分類之濃度劑量可參考 WHO 公告之殺蟲劑毒性分類	100
(二)辦理環境用藥安全使用宣導及安全使用網站資料更新及維護		
1.設計並製作環境用藥安全使用宣導單張、摺頁或其它型式宣導品至少 2 種，總份數不得少於 1000 份及辦理宣導活動(如徵圖比賽)。主題包括噴霧罐、煙霧劑(或燻煙劑)、蟑螂餌劑、殺鼠劑、殺菌劑等居家常用劑型或配合居家環境清理及安全使用環境用藥。徵圖比賽活動包括評選活動初評及複評之外聘委員計 10 人、頒獎活動、活動獎品【第 1 名 30,000 元、第 2 名 20,000 元、第 3 名 10,000 元、網路票選獎 5,000 元、網路抽獎 3,000 元(各 1 名)、佳作 5 名(5,000 元/名)或等值獎品】、獎狀(牌)製作(9 只)、郵寄等。	1.宣導品設計書籤、摺頁、便利貼各 1000 份;海報共計 230 份 2.於 100 年 10 月 18 日完成辦理安全使用環境衛生用藥繪圖比賽。	100
2.更新並維護環境用藥安全使用網站資料。	於 100 年 8 月 12 日完成改版上線。	100
3.針對環境用藥安全使用網站，配合時令推出 3 種不同網頁背景設計。	配合時令已上架地球日版面、端午節版面、父親節版面、中秋節版面及滅鼠週版面。	100
(三)辦理 1 場為期 1 天環境用藥技術應用研討會	已於 100 年 10 月 28 日於集思台大會議中心 蘇格拉底廳完成辦理環境用藥技術應用研討會。	100
(四)其他協助、支援及相關事項		

1.協助本署處理環境用藥突發媒體新聞事件、消費事件或緊急狀況之相關因應措施，並協助收集翻釋整理環境用藥管理、綠色化學等相關資料。	1 環境用藥查核成果年度記者會 2 口服急毒性 OECD 420 附件翻譯 3 歐盟對二氯苯、萘之限用禁用狀況 4 美國微生物製劑污染環境處理方式 5 環境用藥網路查核 6 世界衛生組織(WHO)病媒蚊研究中心資料收集	100
2.協助本署辦理環境用藥管理、公聽會等相關會議作業(必要時邀請專家學者參與)及行政支援。	1.微生物製劑黑殭菌資料收集 2.協助辦理增列微生物製劑公聽會	100

3.環境用藥安全使用性別研究調查問卷	購買產品針對家中出現害蟲所購買的高達 76%、考慮防治對象多的為 24%；假設主要購買殺蚊產品的主要為噴霧罐為 34%、液體電蚊香為 25%、蚊香為 23%；針對前述劑型購買的原因以 27%安全性高為首要選擇、較無味道 25%、習慣購買與操作方式較為簡單各為 17%，針對上述數據分析，於消費行為中受訪者於購買環境用藥產品時較傾向可殺死居家中出現的的為主，針對殺蟲商品的選購原因為安全性較高為首，針對此數據進一步分析，發現勾選安全性較高者大多選購產品劑型大多為選購產品劑型為電蚊香片、液體電蚊香、煙霧劑等；會查看選購商品是否印有合格字號比例則有 69%。 另針對消費者於產品使用行為進行分析，於環境用藥產品的使用會依據產品上所登載的使用方式進行使用為 88%；於產品購買時會先上網查詢相關資料為 32%。建議加強宣導環境用藥各類產品的使用說明與錯誤使用方法可能所造成的環境、人體健康影響；購買環境用藥產品時必須其產品需具備環保署核發字樣，以免民眾錯買非法環境用藥或錯誤使用方法引發環境污染、中毒事件發生，並加強如何以清掃代替噴灑環境用藥資訊，以供民眾參考。	100
4.環境用藥藥效實驗室參訪	完成國內四間環境用藥藥效實驗室參訪與水生生物實驗室參訪	100
期末報告進度完成率(截至 100 年 11 月 25 日)		100

結論

- 一、**國際環境用藥的法規制度收集**，針對先進國家美國、日本、歐盟及鄰近的亞洲國家進行資料收集，彙整的相關資料可做為未來環境用藥工作政策的參考。針對資料收集，本計畫除了針對各國的管理背景、資料架構、法源依據、註冊相關管理規定著手收集之外，並依據各國管制項目內容進行評析，提供業務單位針對其相關資料進行後續作業評估作業。
- 二、隨著社會環保意識的抬頭，減少使用化學產品的使用**環境用藥使用宣導及安全使用網站**為貼近民眾生活的重要一部分，本計畫掌握民眾最想知道的如何購買產品資訊、如何安全使用環境用藥，進行全面性的推廣活動與增加網站的活潑度，本年度截至 100 年 11 月 24 日瀏覽人氣約為一萬七千人次，同時兼具民眾於吸收知識與娛樂的效果。
- 三、辦理一場次年度的**環境用藥技術應用研討會**為環保機關最貼近業者的學術性活動，當日與會人數共計 123 人，演講主題內容針對環境用藥應用於驅蚊及誘蚊防治效果及登革熱防治相關議題邀請專家學者專題介紹，除環境用藥業者及環保機關，同時提供民眾入場並針對有效防除家中擾人的害蟲防治方法進行介紹，以提昇對於環境用藥的了解，藉以達到環境用藥應用技術整體之宣導。
- 四、目前於國內環境用藥申請註冊時，依法規規定需檢附相關申請文件，環保署於本年度提出針對國內**環境用藥藥效實驗室參訪**作業共計參訪五間環境用藥藥效實驗室，藉以了解目前於國內藥效實驗室規模技術，於參訪後綜合專家學者意見，彙整提供於後續管理規範制定之基礎。

本年度從行政支援協助、國際法規資訊收集評估建議至研討會舉辦及環境用藥藥效實驗室參訪，亦完成了相當豐富的成果，期望能對環境用藥管理帶來一定的成效，並讓更多民眾了解有關環境用藥相關的環保觀念。

建議

本計畫於環境用藥管理由 97 年執行至今，對於相關業務的推動及國際法規資料評估已逐漸建全各國管理資訊，針對本年度所收集成果，就計畫所屬的工作項目提出相關建議：

一、收集國際間環境用藥許可管理法規之調查評析

(一)目前於鹿特丹公約編列危險化學品共 39 項，其中屬於除害劑的化學品為 32 項；斯德哥爾摩公約規範之持久性有機污染物共 21 項，而屬於除害劑的持久性有機汙染物為 12 項；建議我國於環境用藥有效成分評估修訂目前國內尚未規範之有效成分，以健全管理制度。

(二)越南於環境用藥管理，針對販賣場所之安全性，必需確保環境用藥不得與醫藥、糧食、飲料與其他消費品一同販售，目前於我國並無針對銷售商品陳列擬定相關管理規章，建議針對環境用藥於商品購買存放應制定相關管理規定，並針對販售場所安全性加以規範。

(三)美國針對殺鼠劑管理規範於本年度進行產品規格修正，並依據殺鼠劑安全性分為四大類，同時針對目前已上架販售之商品重新進行評估，本次修正管理規範主要為降低殺鼠劑影響之風險，並進而保護孩童與寵物及野生動物；建議我國於殺鼠劑的管理可參酌美國的管理規範，針對藥劑放置的地點與最容易誤觸殺鼠劑放置的孩童與動物，進行產品的安全包裝規範，以防止誤食中毒的狀況發生。

二、環境用藥使用宣導

環境用藥為生活中最常接觸的化學藥劑，民眾於家中遭到入侵蟲害的同時，部分民眾無依正確的產品標示方式進行環境用藥的使用，我國針對環境用藥的宣導於近幾年逐步擴大宣導，本年度辦理繪圖比賽、宣導品以及如何購買環境用藥宣導短片進行宣導；建議針對宣導作業可延續本年度宣導短片製作方式，擬訂多種主題並以分組分級方式辦理，於國小、國中加強宣導播放，已達環境教育向下扎根的根本。

二、 環境用藥技術應用研討會

於本年度所舉辦的環境用藥技術應用研討會，針對主題內容的設計大多為防治、用藥噴灑，其主題內容較偏向於技術面之專題演講，建議明年度可針對民眾舉辦有關環境用藥相關資訊的說明會，從居家用藥安全至如何減少孳生源有效推廣於大眾，同時建議研討會舉辦地區可選定地理位置較中心的地區舉辦，以嘉惠更多想蒞臨參與的大眾。

三、 環境用藥藥效實驗室參訪作業

本年度參訪共計五間的環境用藥藥效實驗室，目前國內實驗室規模大部分為學術單位研究所對業者進行試驗，建議針對國內藥效試驗實驗室可修正環境衛生用藥藥效測試通則，同時制定藥效檢測收費標準，已利市場公平交易制度；另可針對較具規模之實驗室進行參訪，以健全修訂其測試通則。

四、 環境用藥網路查核作業

本年度於環境用藥網路查核作業，分別於露天拍賣與奇摩拍賣兩大賣場，共計查核 57 件商品，於我國環境用藥管理法規特別針對民眾於拍賣網站販賣一般環境用藥刊登廣告疑義發布相關解釋令，目前民眾於正確刊登產品的資訊尚未健全；建議於我國針對網路販售產品可增訂相關管理規範，於販售平台應先達到把關的制度，並採取連帶處罰，以降低民眾刊登違反環境用藥廣告之虞。

環境用藥安全管理執行計畫

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第一章 概述

1.1 計畫緣起

於 97 年度以前，毒化物及環境用藥許可證審查作業為環保署承辦人員所進行審理，審查的標準為依據法規整理歸納出一套檢核原則，但是因為人力有限及工作量太大，且細節的判斷規則並未明確定義以及將審查原則書面化。環保署於 97 年首度執行「環境用藥及毒性化學物質許可審查安全管理評析計畫」，並在計畫中加入有關環境用藥國際相關管理制度的調查評析，擬藉由本計畫降低許可審查人力之負荷以及拓展國際間環境用藥管理之視野。

本團隊於 97 年度承接本計畫後，面對各個承辦人員檢核標準不同及人員異動時的知識斷層，著手歸納毒化物及環境用藥許可審查相關法規，並同步加入承辦人員所歸納之檢核點，制定許可審查原則標準化；並於 98 年度將許可審查提升至技術審查之層面，增加申請範例及申請問與答，並於許可審查原則中，明列特殊審查注意事項。99 年度更將許可技術審查推至精進審查階段，將申請案審理時所遇到的狀況，由單一條列式的審查原則到製作申請書表格單欄對應審查原則說明，以及公文套版、許可證產出需注意相關欄位及備註之套版，用以健全許可標準審查原則流程的完整以及標準化，本計畫於 97 年度執行至今共計 3 年的初審審查經歷，搭配標準許可審查原則流程，以及專職專人的審核程序，初審核准率亦由 97 年度的 75.7% 提升到 99 年度的 91%，提升幅度高達 15.3%。同年針對地方環保人員進行 3 場次毒性化學物質許可審查技術說明會，藉以提升地方環保人員審查標準一致，亦於 99 年度協助環保署將毒性化學物質輸入及製造許可審查下放於地方主管機關進行審理。

本計畫另一主軸環境用藥國際相關管理制度的調查評析，97 年度本團隊著手建立各國法規收集架構，並完成製作及修正環境用藥有效成分原體中文毒理資料庫系統，並於 98 年製作禁用環境用藥有效成分原體中文資料，同年度辦理了環境用藥安全使用研習會並邀請環保署署長於電視媒體進行環境衛生用藥相關使用說明宣導論壇，共計 3.57 萬人次觀賞。99 年度本計畫於國際間環境用藥管管理規範，針對綠色化學提出環境用藥及毒化物之替代產品，亦收集

美各國殺鼠劑、殺菌劑、防蚊劑、惰性成分等資訊，並針對殺鼠劑、防蚊劑則提出對國內現行制度的建議，完成 1 場次環境衛生用藥管理及病媒防治技術研討會。

本年度(100 年)計畫著重於環境衛生用藥安全使用管理執行及推廣，本計畫針對環境用藥安全使用系統進行資料更新及維護，提升網站內容活潑度，以達到環境衛生用藥宣導成效。此外規劃環境用藥徵圖比賽，並搭配宣導活動並進行宣導品製作增加曝光度，同時協助辦理環境衛生用藥技術應用研討會，將國內環境用藥推至國際視野；於國際法規部分除持續收集各國相關環境用藥管理資訊，並加以分析評估與國內之差異部分，以完整國內於環境用藥使用管理趨勢。



圖 1-1 97-100 計畫概述示意圖

1.2 計畫目標

本計畫依據評選須知及歷年執行各計畫經驗，工作計畫目標，大致可分為下列三大項：

- 一、完成蒐集歐盟、美國及亞洲地區國家環境用藥相關管理規定之評析
- 二、辦理環境用藥安全使用宣導及安全使用網站資料更新及維護
- 三、完成辦理環境用藥技術應用研討會

1.3 計畫工作範圍

本計畫工作項目包括下列項目：

表 1-1 計畫合約工作項目與本報告章節對應表

合約工作項目	章節說明
一、辦理歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥許可管理規定之調查評析	-
(一)收集並分析歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥管理之最新法令規定。	2.2 節
(二)收集歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區有關環境用藥管理及其替代物之相關資訊，提出相關建議採行措施。	2.3 節
(三)針對現行環境用藥管理措施提出檢討及建議。	2.5 節
二、辦理環境用藥安全使用宣導及安全使用網站資料更新及維護	-
(一)設計並製作環境用藥安全使用宣導單張、摺頁或其它型式宣導品至少 2 種，總份數不得少於 1000 份及辦理宣導活動(如徵圖比賽)。主題包括噴霧罐、煙霧劑(或燻煙劑)、蟑螂餌劑、殺鼠劑、殺菌劑等居家常用劑型或配合居家環境清理及安全使用環境用藥。徵圖比賽活動包括評選活動初評及複評之外聘委員計 10 人、頒獎活動、活動獎品【第 1 名 30,000 元、第 2 名 20,000 元、第 3 名 10,000 元、網路票選獎 5,000 元、網路抽獎 3,000 元(各 1 名)、佳作 5 名(5,000 元/名)或等值獎品】、獎狀(牌)製作(9 只)、郵寄等。	3.2~3.3 節

(二)更新並維護環境用藥安全使用網站資料。	3.1 節
(三)針對環境用藥安全使用網站，配合時令推出 3 種不同網頁背景設計。	3.1 節
三、辦理 1 場為期 1 天環境用藥技術應用研討會，工作內容如下	-
(一)與會人員（本研討會採免費報名參加）約 120 人。	4.1 節
(二)與會人員之聯繫作業：工作內容包括與會人員之邀請工作（含寄送邀請函、宣傳海報等）、會議主持人及演講者之行程確認及相關費用發放（12 人，包括出席費或撰稿費，其相關費用可參照本署相關規定辦理，且應於當日當場以現金發放）。	4.1 節
(三)活動網頁之建置作業：工作內容包括網頁規劃設計、網站建置、研討會相關資料之上載及維護等。	4.1 節
(四)會場佈置作業：工作內容包括會場租借、整體規劃及佈置、海報、演講台 LOGO 板等之設計及製作等。	4.1 節
(五)研討會整體文宣規劃作業：工作內容包括議程安排、演講內容彙整及宣傳海報（50 張）、識別證（約 120 份）、邀請函、會議手冊及會議議題資料、論文集及光碟片（150 份）等之設計、編輯、製作及印製。	4.1 節
(六)電腦、視聽設備規劃及執行作業，包括電腦、視聽設備租用及聯絡協調等。	4.1 節
(七)研討會期間現場作業：工作內容包括現場工作及接待人員之安排運用、會場善後清潔事宜、餐飲安排作業（包括午餐 120 份、茶點共 120 份、晚宴 15 人份）等。	4.1 節
四、其他協助、支援及相關事項	-

(一)協助本署處理環境用藥突發媒體新聞事件、消費事件或緊急狀況之相關因應措施，並協助收集翻釋整理環境用藥管理、綠色化學等相關資料。	第六章
(二)協助本署辦理環境用藥管理、公聽會等相關會議作業(必要時邀請專家學者參與)及行政支援。	第六章

1.4 計畫執行期程與經費

一、計畫期程

本計畫執行期間自決標日民國 100 年 2 月 15 日至民國 100 年 12 月 31 日止。

二、計畫經費

本計畫決標金額總計為新台幣貳佰壹拾陸萬元整。

第二章 辦理國際間環境用藥許可管理法規之調查評析

本年度持續收集國際間環境用藥管理法規資訊，首先對國際環境用藥相關公約進行說明，並新增亞洲地區六個國家(泰國、印尼、越南、韓國、新加坡與香港)的環境用藥許可管理，亦更新歷年所收集的國家(如美國、歐盟、日本與大陸地區)之環境用藥許可管理法規修正與最新法令說明，並著手收集各國有關環境用藥管理及其替代物之相關資訊，針對各國之現況加以統整以利與我國現行環境用藥管理措施比較，提出分析與建議。

2.1 國際公約

國際間有關環境用藥之公約為鹿特丹公約與斯德哥摩爾公約，公約為透過締約國共同擔負公約之責任與合作，以達國際永續發展之目的。

一、鹿特丹公約(Rotterdam Convention)

鹿特丹公約是聯合國環境規劃署(United Nations Environment Programme; UNEP)與聯合國糧食及農業組織(Food and Agriculture Organization of the United Nations; FAO)於1998年9月10日在荷蘭鹿特丹訂定發布之國際公約，自2004年2月24日施行。目前共有154個國家簽訂此公約。

然而，為了使鹿特丹公約施行後的有效運作做準備，於1989年頒布實施暫時性事先知情同意程序(prior informed consent procedure; PIC procedure)，此條款建立在自願性事先知情同意程序，具有法律約束力的義務，但已於公約施行後兩年(2006年2月24日)停止適用。

鹿特丹公約旨在促進國際貿易中某些危險化學品特性的資訊交流，其危險化學品分類為除害劑(Pesticide)(後述之 Pesticide 即通稱為除害劑)、極危險除害劑劑型與工業化學品，目前所規範之危險化學品共計39項，如表2-1所示。

表 2-1 危險化學品清單

項次	化學品名稱	中文名稱	CAS NO.	類別
1	2,4,5-Trichlorophenol and its salts and esters	2,4,5-三氯酚及其鹽類與酯類	93-76-5*	除害劑
2	Alachlor	拉草	15972-60-8	除害劑
3	Aldicarb	得滅克	116-06-3	除害劑
4	Aldrin	阿特靈	309-00-2	除害劑
5	Binapacryl	百蟊克	485-31-4	除害劑
6	Captafol	四氯丹	2425-06-1	除害劑
7	Chlordane	可氯丹	57-74-9	除害劑
8	Chlordimeform	殺蟲脒	6164-98-3	除害劑
9	Chlorobenzilate	克氯苯	510-15-6	除害劑
10	Dichloro diphenyl trichloroethane(DDT)	滴滴涕	50-29-3	除害劑
11	Dieldrin	地特靈	60-57-1	除害劑
12	Dinitro- <i>o</i> -cresol(DNOC) and its salts(such as ammonium salt, potassium salt and sodium salt)	4,6-二硝基鄰甲酚	534-52-1 2980-64-5 5787-96-2 2312-76-7	除害劑
13	Dinoseb and its salts and esters	達諾殺及其鹽類與酯類	88-85-7*	除害劑
14	1,2-dibromoethane(EDB)	二溴乙烷	106-93-4	除害劑
15	Endosulfan	安殺番	115-29-7	除害劑
16	Ethylene dichloride	1,2-二氯乙烷	107-06-2	除害劑
17	Ethylene oxide	環氧乙烷	75-21-8	除害劑
18	Fluoroacetamide	氟乙醯胺	640-19-7	除害劑
19	HCH(mixed isomers)	蟲必死	608-73-1	除害劑
20	Heptachlor	飛佈達	76-44-8	除害劑
21	Hexachlorobenzene	六氯苯	118-74-1	除害劑
22	Lindane	靈丹	58-89-9	除害劑
23	Mercury compounds, including inorganic mercury compounds, alkyl mercury compounds and alkyloxyalkyl and aryl mercury compounds	汞化物	---	除害劑
24	Monocrotophos	亞素靈	6923-22-4	除害劑
25	Parathion	巴拉松	56-38-2	除害劑
26	Pentachlorophenol and its salts and esters	五氯酚及其鹽類與酯類	87-86-5*	除害劑
27	Toxaphene	毒殺芬	8001-35-2	除害劑

項次	化學品名稱	中文名稱	CAS NO.	類別
28	All tributyltin compopunds including: Tributyltin oxide Tributyltin fluoride Tributyltin methacrylate Tributyltin benzoate Tributyltin chloride Tributyltin linoleate Tributyltin naphthenate	三丁基錫化合物 氧化三丁錫 氟化三丁錫 丙烯酸甲酯三丁基錫 三丁基錫苯甲酸酯 氯化三丁錫 亞麻油酸三丁基錫 環烷酸三丁基錫	56-35-9 1983-10-4 2155-70-6 4342-36-3 1461-22-9 24124-25-2 85409-17-2	除害劑
29	Dustable powder formulations containing a combination of: Benomyl at or above 7 per cent Carbofuran at or above 10 per cent Thiram at or above 15 per cent	免賴得 保加扶 得恩地	17804-35-2 1563-66-2 137-26-8	極危險除害劑劑型
30	Methamidophos(soluble liquid formulations of the substance that exceed 600g active ingredient/l)	達馬松	10265-92-6	極危險除害劑劑型
31	Phosphamidon(soluble liquid formulations of the substance that exceed 1000g active ingredient/l)	福斯胺	13171-21-6(mixture, (E)&(Z) isomers) 23783-98-4((Z)-isomer) 297-99-4((E)-isomer)	極危險除害劑劑型
32	Methyl-parathion(emulsifiable concentrates(EC) at or above 19.5% active ingredient and dusts at or above 1.5% active ingredient)	甲基巴拉松	298-00-0	極危險除害劑劑型
33	Asbestos: Actinolite Acthophyllite Amosite Crocidolite Tremolite	石綿 陽起石 直閃石 鐵石綿 青石綿 透閃石	77536-66-4 77536-67-5 12172-73-5 12001-28-4 77536-68-6	工業化學品
34	Polybrominated biphenyls(PBB)	六溴聯苯 八溴聯苯 十溴聯苯	36355-01-8(hexa-) 27858-07-7(octa-) 13654-09-6(deca-)	工業化學品
35	Polychlorinated biphenyls(PCB)	多氯聯苯	1336-36-3	工業化學品
36	Polychlorinated terphenyls(PCT)	多氯三聯苯	61788-33-8	工業化學品
37	Tetraethyl lead	四乙基鉛	78-00-2	工業化學品
38	Tetramethyl lead	四甲基鉛	75-74-1	工業化學品
39	Tris(2,3-dibromopropyl)phosphate	三(2,3-二溴丙基)-磷酸酯	126-72-7	工業化學品

註：*表示僅列出主要化合物之 CAS NO.

鹿特丹公約的主要目標為針對上表所列之危險化學品的國際貿易，促進共同承擔責任與締約方之間的合作努力，以保護人類健康與環境的潛在危害。此公約的規範範圍如下：

(一)適用於：

- 1.禁用或嚴格限用之化學品
- 2.極危險之除害劑劑型

(二)不適用於：

- 1.麻醉藥品與精神藥物
- 2.放射性材料
- 3.廢棄物
- 4.化學武器
- 5.藥品(包括人用與獸用藥品)
- 6.用作食物添加劑之化學品
- 7.食物
- 8.其輸入數量不可影響人類健康或環境之化學品：
 - (1)用於研究或分析
 - (2)符合個人合理使用量

以上鹿特丹公約資訊摘錄自附件一(Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade)，資料更新至 2011 年 10 月 24 日。

二、斯德哥爾摩公約(Stockholm Convention)

斯德哥爾摩公約為環境保護國際公約，是聯合國環境規劃署於 2001 年在瑞典斯德哥爾摩提出討論，並於同年的 5 月 22 日訂定發布，自 2004 年 5 月 17 日施行。目前共有 185 個國家簽訂此公約。

斯德哥爾摩公約旨在促使國際社會承諾保護人類健康與環境免受持

久性有機污染物(persistent organic pollutants; POPs)的危害，並透過禁止、限制生產和使用的措施，將初定之 12 種最具毒性持久性有機污染物與 2009 年 5 月增列之 9 個持久性有機污染物列入公約之附件 A、B 和 C 中，分別達到消除、限制與減少無意生產持久性有機污染物之目的。公約所訂定之持久性有機污染物清單如表 2-2 所示。

表 2-2 持久性有機污染物清單

所屬附件	類別	化學品名	中文名稱	CAS No.	活動	特定豁免
A (消除)	除害劑	Aldrin	阿特靈	309-00-2	生產	---
					使用	局部處理之殺體表寄生物藥* 殺蟲劑*
	除害劑	Chlordane	可氯丹	57-74-9	生產	限登記冊上所列之締約方*
					使用	局部處理之殺體表寄生物藥* 殺蟲劑* 殺白蟻劑* 用於建築物與水壩之殺白蟻劑* 用於道路之殺白蟻劑* 膠合板黏合劑之添加劑*
	除害劑	Chlordecone	十氯酮	143-50-0	生產	---
					使用	---
	除害劑	Dieldrin	地特靈	60-57-1	生產	---
					使用	農業使用
	除害劑	Endrin	安特靈	72-20-8	生產	---
					使用	---
	除害劑	Heptachlor	飛佈達	76-44-8	生產	---
					使用	殺白蟻劑* 用於房屋結構之殺白蟻劑* 殺白蟻劑(地下白蟻)* 木材處理* 用於地下電纜盒中*
	除害劑	Lindane	靈丹	58-89-9	生產	---
					使用	人體治療藥物：控制頭蝨與疥瘡之第二線藥物
	除害劑	Mirex	滅蟻樂	2385-85-5	生產	限登記冊上所列之締約方*
					使用	殺白蟻劑*
	除害劑	Toxaphene	毒殺芬	8001-35-2	生產	---
					使用	---
	除害劑 工業化學品	Hexachlorobenzene(HCB)	六氯苯	118-74-1	生產	限登記冊上所列之締約方*
					使用	中間體* 殺蟲劑溶劑* 有限場所密閉系統之中間體**
	除害劑 工業化學品	Pentachlorobenzene	五氯苯	608-93-5	生產	---
					使用	---

所屬附件	類別	化學品名	中文名稱	CAS No.	活動	特定豁免
	除害劑 副產品	α -hexachlorocyclohexane	α -蟲必死	319-84-6	生產	---
					使用	---
	除害劑 副產品	β -hexachlorocyclohexane	β -蟲必死	319-85-7	生產	---
					使用	---
	工業化學品	Hexabromobiphenyl	六溴聯苯	36355-01-8	生產	---
					使用	---
	工業化學品	Hexabromodiphenyl ether and heptabromodiphenyl ether	六溴二苯醚及七溴二苯醚		生產	---
					使用	根據附件 A 第四部分規定物品
	工業化學品	Polychlorinated biphenyls(PCB)	多氯聯苯		生產	---
					使用	根據附件 A 第二部分規定物品
B (限制)	除害劑	DDT(1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane)	滴滴涕	50-29-3	生產	可接受用途： 根據附件 B 第二部分控制病媒 特定豁免： 三氯殺蟎醇之生產中間體*** 中間體***
					使用	可接受用途： 根據附件 B 第二部分控制病媒 特定豁免： 三氯殺蟎醇之生產中間體***
	工業化學品	Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride	全氟辛烷磺酸及其鹽類		生產	可接受用途： 根據附件 B 第三部分專用於以下用途之其他化學品。為下列用途而生產。 特定豁免： 限登記冊上所列之締約方
					使用	可接受用途： 根據附件B第三部分用於下列可接受用途，或在下列可接受用途的化學品之生產中間體： • 照片成像 • 半導體器件的光阻劑和防反射塗層 • 化合物半導體和陶瓷濾芯的刻蝕劑 • 航空液壓油 • 只用於閉環系統的金屬電鍍（硬金屬電鍍） • 某些醫療設備（如乙烯四氟乙烯共聚物（ETFE）層和無線電屏蔽 ETFE 的生產，體外診斷醫療設備和 CCD 濾色儀）

所屬附件	類別	化學品名	中文名稱	CAS No.	活動	特定豁免
						• 藥火泡沫 • 用於控制切葉蟻（美葉切蟻屬和刺切蟻屬）的昆蟲毒餌 特定豁免： 用於下列特定用途，或在下列可接受用途的化學品之生產中間體： • 半導體和液晶顯示器（LCD）行業所用的光掩膜 • 金屬電鍍（硬金屬電鍍） • 金屬電鍍（裝飾電鍍） • 某些彩色打印機和彩色複印機的電子和電器元件 • 用於控制紅火蟻和白蟻的殺蟲劑 • 化學石油生產 • 地毯 • 皮革和服裝 • 紡織品和室內裝飾 • 紙和包裝 • 塗料和塗料添加劑 • 橡膠和塑料
C (無意生產)	副產品	Polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofurans (PCDD/PCDF)	全氟辛烷磺酸及其鹽類和全氟辛基磺醯氟		生產	---
					使用	---
	副產品	Hexachlorobenzene(HCB)	六氯苯	118-74-1	生產	---
					使用	---
	副產品	Pentachlorobenzene	五氯苯	608-93-5	生產	---
					使用	---
	副產品	Polychlorinated biphenyls(PCB)	多氯聯苯		生產	---
					使用	---

註：*至 2009 年 5 月 17 日為止，無任何締約方登記附件 A 所列關於 aldrin、chlordane、dieldrin、heptachlor、hexachlorobenzene 與 mirex 的特定豁免。因此，按照本公約第 4 條第 9 款的規定，締約方不得就此項進行新的登記。

**儘管 HCB 在有限場所密閉系統之中間體的特定豁免已無效，按照本附件第一部分(iii)，HCB 作為有限場地封閉系統內之中間體依舊可用。

***至 2009 年 5 月 17 日為止，無任何締約方登記附件 B 所列關於 DDT 的特定豁免。因此，按照本公約第 4 條第 9 款的規定，締約方不得就此項進行新的登記。

斯德哥爾摩公約的主要責任包括以下幾點：

- (一)立刻全面禁止生產和使用除害劑，即阿特靈(Aldrin)及毒殺芬(Toxaphene)。
- (二)停止生產除害劑，即地特靈(Dieldrin)、安特靈(Endrin)及飛佈達

(Heptachlor)，剩餘供應品的使用則須作登記。

(三)將可氯丹(Chlordane)、六氯苯(Hexachlorobenzene)、滅蟻樂(Mirex)的生產和使用限於有限度的特定用途，只可在已登記豁免的國家進行。

(四)禁止多氯聯苯(Polychlorinated biphenyls)的生產，並在 2025 年或以前採取行動逐步停止使用含多氯聯苯的設備，且回收的多氯聯苯必須在 2028 年或以前予以處理及消除。

(五)將滴滴涕(DDT)的生產和使用限於控制瘧疾等疾病，如滴滴涕是用作除害劑三氯殺蟎醇之生產中間體，則須登記豁免。

(六)減少在燃燒或工業產生的副產物戴奧辛(Dioxin)、呋喃(Furan)、六氯苯和多氯聯苯的排放，即利用「最佳可行技術」及「最佳環境實踐」，持續減少並在可行情況下最終消除這些污染物。

(七)限制 10 種有意生產持久性有機污染物的輸入與輸出。

(八)在公約生效兩年內制訂執行斯德哥爾摩公約的國家實施計畫，並確立國家協調中心提供關於持久性有機污染物的資料交換。

以上斯德哥爾摩公約相關資訊摘錄自附件二(Stockholm Convention on Persistent Organic Pollutants (POPs))，資料更新至 2010 年 8 月。

資料來源：

1.鹿特丹公約(Rotterdam Convention)：<http://www.pic.int/>

2.斯德哥爾摩公約(Stockholm Convention)：<http://chm.pops.int/>

2.2 辦理亞洲地區環境用藥管理規定調查評析

2.2-1 泰國環境用藥管理規定調查評析

泰國於 2002 年 2 月 19 日簽訂鹿特丹公約，自 2004 年 2 月 24 日施行；而斯德哥爾摩公約於 2002 年 5 月 22 日簽訂，自 2005 年 1 月 31 日施行。

一、管理背景

泰國於 1967 年前，幾乎對”危害物質”(包含環境用藥)的生產、輸入、輸出、持有(包含販賣、運輸、使用等事項)以及處置沒有進行管制。然而危害物質的使用漸趨普遍，又缺乏詳盡的使用說明、適當的管理措施與民眾的不了解化學品之危害，造成中毒事件逐漸增加，因此泰國政府採取行動管理危害物質，由泰國公共衛生部食品藥物管理局(Food and Drug Administration; FDA)底下之危害物質控制組(Hazardous Substances Control Division)負責，其網站首頁如圖 2.2-1 所示。

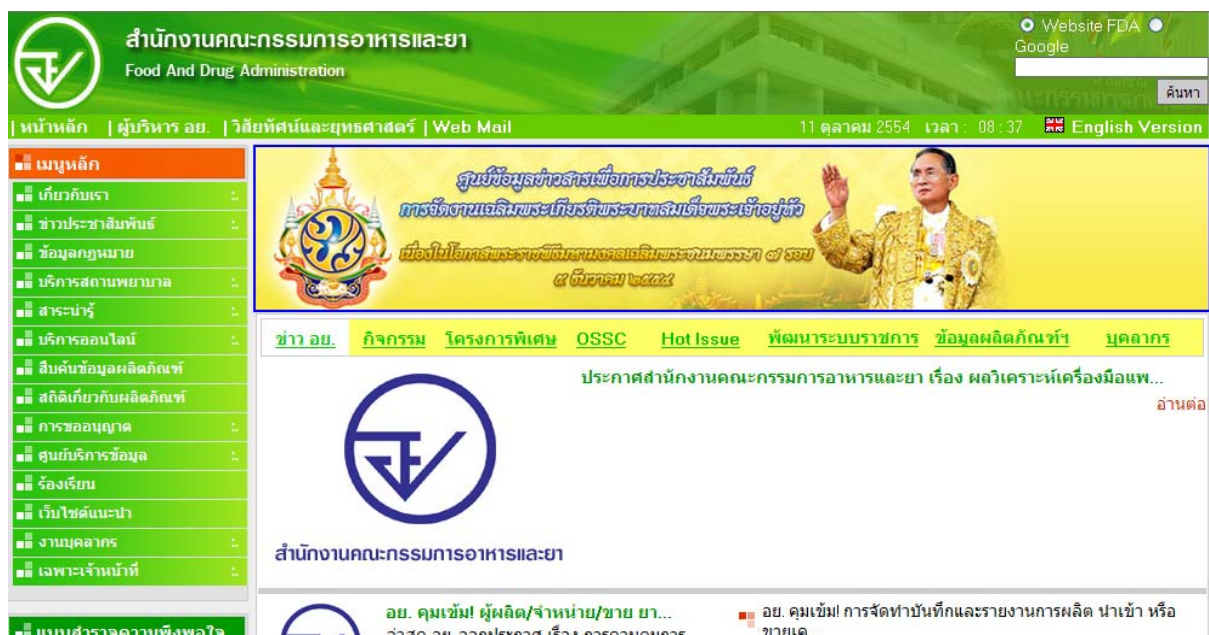


圖 2.2-1 泰國食品藥物管理局網站首頁

食品藥物管理局是由藥物、食品、毒品、醫療器材、化妝品、危害物質與輔導小組共計七個單位所共同組成，環境用藥權責單位則歸屬於危害物質控制組負責管理，其下分為三組委員會共同管理危害物質，分別為：

- (一)家庭與公眾健康使用的標準危害物質委員會
- (二)家庭與公眾健康使用的登記危害物質委員會
- (三)標準除害劑控制操作委員會

泰國食品藥物管理局網站資料架構如圖 2.2-2。

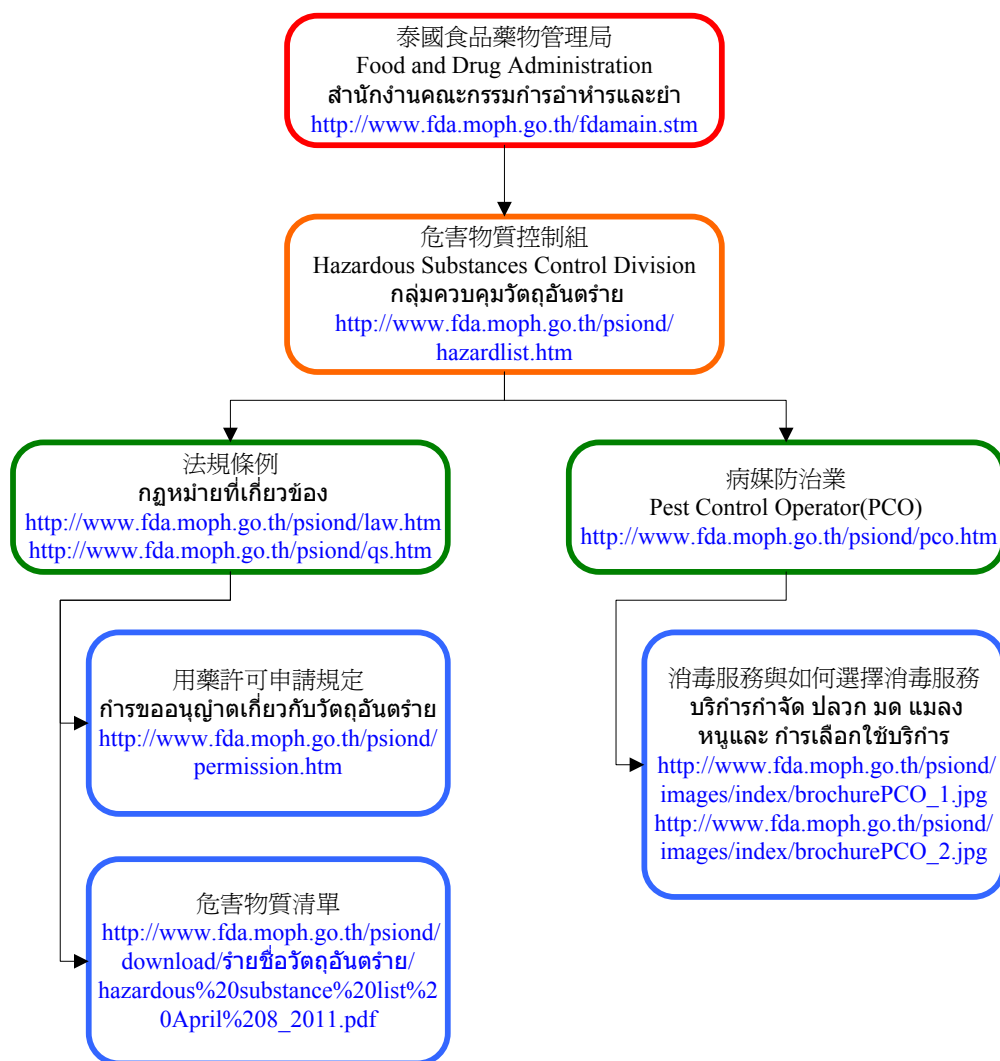


圖 2.2-2 泰國網站資料架構

二、管理法規依據與目的

泰國政府於 1967 年訂定發布 ”Hazardous Substance Act B.E.2535(1967)”條例，並在 1973 年進行該條例第 2 次修正公布” Hazardous Substance Act BE2516(1973)”，新增危害物質的登記程序措施。目前管理

法規為 1992 年 4 月 7 日之第 3 次修正公布” Hazardous Substance Act BE2535(1992)”，此次修正較前兩次法規內容所規範的危害物質更擴大其範圍，除了管制原有規範之毒性物質，亦將工業與環境中的毒性物質納入危害物質法中加以規範，並促進各有關機構之間的合作、控制和監督危害物質的使用。

三、危害物質規範

(一)管制範圍

泰國政府訂定的危害物質法所規範之危害物質範圍如下所列：

- 1.炸藥
- 2.易燃物質
- 3.氧化劑與過氧化物
- 4.有毒物質
- 5.引起疾病之物質
- 6.放射性物質
- 7.突變致癌物質
- 8.腐蝕性物質
- 9.刺激性物質
- 10.其他化學物質或造成人體、動物、植物或環境傷害之物質(同等我國環境用藥)

除此之外，泰國政府亦將危害物質依照其危險程度分為四大類：

- 1.危害物質之製造、輸入、輸出或持有應遵循規範
- 2.危害物質之製造、輸入、輸出或持有應事先通知食品藥物管理局之危害物質控制組，且遵循規範
- 3.危害物質之製造、輸入、輸出或持有應發放許可證
- 4.危害物質之製造、輸入、輸出或持有應被禁止

(二)註冊申請之收費標準

危害物質之相關申請、註冊事項均需收費，泰國法規之收費標準如表 2.2-1 所示。

表 2.2-1 危害物質之相關申請收費標準

項次	事項	收費(泰幣)	(約台幣)
1	危害物質註冊	15,000	13,148
2	危害物質製造許可證	20,000	17,530
3	危害物質輸入許可證	20,000	17,530
4	危害物質輸出許可證	20,000	17,530
5	危害物質持有許可證	20,000	17,530
6	危害物質樣本製造許可證	2,000	1,753
7	危害物質樣本輸入許可證	2,000	1,753
8	危害物質產品註冊變更	1,000	877
9	許可證變更	1,000	877
10	危害物質註冊展延費用同其註冊申請費用	15,000	13,148
11	各類許可證展延費用同其註冊申請費用	20,000	17,530

(三)危害物質註冊

泰國環境用藥屬於危害物質的一類，環境用藥產品註冊申請步驟與危害物質相同，申請流程如圖 2.2-3 所示。

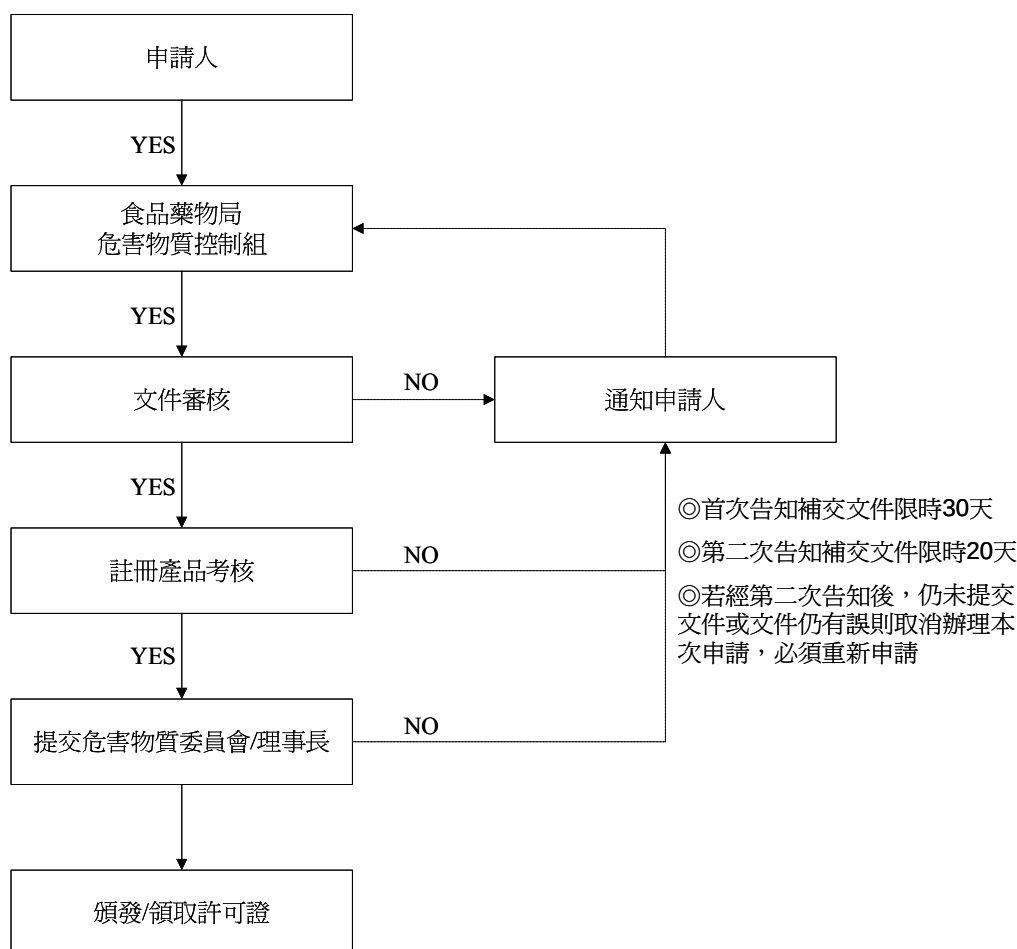


圖 2.2-3 產品註冊申請流程

產品註冊許可證的有效期間為 6 年，並可於期滿 90 天前申請展延。有關產品註冊申請時所需繳交的文件如下所列：

- 1.產品註冊申請單(如附件三所示)
- 2.製造商註冊證明並附授權簽章
- 3.申請人身分證影本
- 4.委託書(若為委託代理)
- 5.符合危害物質規範要求
- 6.產品容器之文件或照片
- 7.產品包裝之文件或照片(無強制規定需檢附)

8.製造過程(若為申請製造權)

9.防止與制止火災方法

10.物質安全資料表

11.工作人員及負責人需要之其他文件(依相關法律規定)

目前泰國所規範之危害物質多達 254 項，詳見附件四(更新至 2011 年 4 月 8 日)，其中環境用藥相關危害物質為 168 項，如表 2.2-2 所示，即存在於居家或公眾健康使用的產品，具有預防、控制與驅逐害蟲之功效。

表 2.2-2 環境用藥相關之危害物質清單

項次	化學品名稱	中文名稱	CAS NO.
1	1-(<i>p</i> -methoxyphenyl)-2-methyl-1,3-propanediol-methylene ether	---	5689-72-5
2	1,2,3,4-tetrahydro-2-naphthol	1,2,3,4-四氫-2-萘酚	530-91-6
3	2,4-dinitroanisole	2,4-二硝基苯甲醚	119-27-7
4	2-nitro-2-ethyl-1,3-propanediol butyraldehyde acetal	---	5702-40-9
5	2-nitro-2-methyl-1,3-propanediol	---	77-49-6
6	2-phenylcyclohexanol	2-苯基環己醇	1444-64-0
7	2-phenylethyl- α -hydroxy isobutyrate	---	10290-01-4
8	Acetophenone,4'-methoxy-3'-methyl	---	10024-90-5
9	Aldicarb	得滅克	116-06-3
10	Aldrin	阿特靈	309-00-2
11	α,α' -dimethyl- α -carbobutoxy-dihydro-gamma-pyrone	---	532-34-3
12	α -chlorohydrin	3-氯-1,2-丙二醇	96-24-2
13	Amitraz	雙甲脒(三亞蟎)	33089-61-1
14	ANTU	安妥	86-88-4
15	Arsenic and arsenic compounds	砷及砷化物	---
16	Azamethiphos	甲基吡啶磷	35575-96-3
17	<i>Bacillus thuringiensis</i>	蘇雲金芽孢桿菌	68038-71-1
18	Barium carbonate	碳酸鋇	513-77-9
19	Bendiocarb	免敵克	22781-23-3
20	Benzyl benzoate	苯甲酸苯甲酯	120-51-4
21	BHC; HCH	六氯苯；蟲必死	608-73-1

項次	化學品名稱	中文名稱	CAS NO.
22	Brodifacoum	可滅鼠	56073-10-0
23	Bromadiolone	撲滅鼠	28772-56-7
24	Bromophos	溴硫磷	2104-96-3
25	Bromophos-ethyl	溴硫磷乙基	4824-78-6
26	Calomel	氯化亞汞(甘汞)	10112-91-1
27	Captafol	四氯丹	2425-06-1
28	Carbaryl	加保利	63-25-2
29	Chlordane	可氯丹	57-74-9
30	Chlordecone	十氯酮	143-50-0
31	Chlordimeform	殺蟲脒	6164-98-3
32	Chlorfenvinphos[(Z)-+(E)-isomers]	毒蟲畏	470-90-6
33	Chlormephos	氯甲硫磷	24934-91-6
34	Chlorophacinone	可伐鼠	3691-35-8
35	Chlorpyrifos	陶斯松	2921-88-2
36	Chlorpyrifos-methyl	甲基陶斯松	5598-13-0
37	Chlorthiophos[isomer(i)]	克硫松	21923-23-9
38	Cholecalciferol	維生素 D3	67-97-0
39	cis-bicyclo(2,2,1-heptene-2,3-dicarboxylic acid)methyl ester	驅蚊靈	5826-73-3
40	Citronella oil	香茅油	8000-29-1
41	Coumafuryl	克鼠靈	117-52-2
42	Coumaphos	潤馬磷	56-72-4
43	Coumatetralyl	4-羥基-3-(1,2,3,4-四氫-1-萘基)香豆素	5836-29-3
44	Crimidine	鼠立死	535-89-7
45	Crotoxyphos	丁烯磷	7700-17-6
46	Cruformate	育畜磷	299-86-5
47	Cyanophos	氰乃松	2636-26-2
48	Cyclohexane carboxylic acid	環己烷羧酸	98-89-5
49	Cycloheximide	環己亞胺	66-81-9
50	Cyclohexyl acetoacetate	環己基乙酰	6947-02-0
51	DEET	敵避	134-62-3
52	Diazinon	大利松	333-41-5
53	Dibutyl phthalate	鄰苯二甲酸二丁酯	84-74-2
54	Dichlorvos	二氯松	62-73-7
55	Dicofol	大克蟎	115-32-2

項次	化學品名稱	中文名稱	CAS NO.
56	Dicrotophos	雙特松	141-66-2
57	Dieldrin	地特靈	60-57-1
58	Diethyl phthalate	鄰苯二甲酸二乙酯	84-66-2
59	Diethylene glycol monnbutyl ether acetate	醋酸丁基卡必醇	124-17-4
60	Difenacoum	雙滅鼠	56073-07-5
61	Diflubezuron	二福隆	35367-38-5
62	di-isopropyl tartrate	酒石酸二異丙酯	2217-15-4
63	Dimethyl phthalate	苯二甲酸二甲酯	131-11-3
64	Dimetilan	敵蠅威	644-64-4
65	Dinitrocresol; DNOC	4,6-二硝基鄰甲酚	534-52-1
66	Dinoseb and dinoseb salts	達諾殺及其鹽類	88-85-7
67	Dioxacard	二氧威	6988-21-2
68	Dioxathion	大克松	78-34-2
69	Diphacinone	得伐鼠	82-66-6
70	Endosulfan	安殺番	115-29-7
71	Endrin	安特靈	72-20-8
72	Ergocalciferol	維生素 D2	50-14-6
73	Ethanol,2,2'-thiodi-,diacetate	---	4275-28-9
74	Ethion	愛殺松	563-12-2
75	Ethyl ester of epoxy methylphenyl acrylic acid	---	---
76	Ethylcyanocyclohexyl acetate	---	1331-45-9
77	Ethylene dichloride	1,2-二氯乙烷	107-06-2
78	Fenchlorphos	樂乃松	299-84-3
79	Fenitrothion	撲滅松	122-14-5
80	Fenoxycarb	芬諾克	72490-01-8
81	Fenthion	芬殺松	55-38-9
82	Flocoumafen	伏滅鼠	90035-08-8
83	Fluoroacetamide	氟乙醯胺	640-19-7
84	Fluoroacetate sodium	氟乙酸鈉	62-74-8
85	Fluoroacetic acid and its salts	2-氟醋酸及其鹽類	---
86	Heptachlor	飛佈達	76-44-8
87	Heptenophos	飛達松	23560-59-0
88	Hexahydrophthalate diethyl	---	---
89	Hydracrylate-β-phenyl ethyl	---	---

項次	化學品名稱	中文名稱	CAS NO.
90	Hydramethylnon	愛美松	67485-29-4
91	Hydroprene	烯蟲乙酯	41096-46-2
92	Imidacloprid	吡蟲啉	105827-78-9
93	Insect growth regulators	昆蟲生長調節劑	---
94	Isazofos	依殺松	42509-80-8
95	Isobenzan	碳氯靈	297-78-9
96	Isodrin	異氯甲橋	465-73-6
97	Isopropyl cinnamate	桂皮酸異丙脂	7780-06-5
98	Jodfenphos	阿發松	18181-70-9
99	Kelevan	氯戊環	4234-79-1
100	Kinoprene	烯蟲炔酯	37882-31-8
101	Lead arsenate	砷酸鉛	7784-40-9
102	Lindane(>99% γ -HCH or γ -BHC)	靈丹	58-89-9
103	Malathion	馬拉松	121-75-5
104	Mecarbam	滅加松	2595-54-2
105	Mercury compounds	汞化物	---
106	Methacrifos	滅克松	62610-77-9
107	Methiocarb	滅賜克	2032-65-7
108	Methomyl	納乃得	16752-77-5
109	Methoprene	美賜平	40596-69-8
110	Methoxychlor	甲氧基氯	72-43-5
111	Methyl bromide; bromomethane	溴化甲烷	74-83-9
112	Mevinphos	美文松	7786-34-7
113	Microbial larvicides	微生物殺幼蟲劑	---
114	Mirex	滅蟻樂	2385-85-5
115	Monocrotophos	亞素靈	6923-22-4
116	N,N-diethyl succinamide-n-propyl	---	---
117	N,N-dipropyl succinamic acid ethyl ester	---	10143-31-4
118	Naled	乃力松	300-76-5
119	Naphthalene	萘	91-20-3
120	<i>n</i> -butyl-1,2,3,6-tetrahydronaphthalimide	---	2021-19-4
121	<i>n</i> -butyl-dl-malate	<i>n</i> -蘋果酸-dl-丁酯	---
122	Norbormide	滅鼠寧	991-42-4
123	<i>n</i> -propyl cinnamate	肉桂酸丙酯	7778-83-8
124	<i>n</i> -sec-butyl phthalimide	鄰苯二甲酰亞胺	10108-61-9

項次	化學品名稱	中文名稱	CAS NO.
125	Omethoate	歐滅松	1113-02-6
126	Oxydemeton-methyl	亞砒吸磷	301-12-2
127	<i>p</i> -(<i>n</i> -propoxy)benzaldehyde	4-丙氧基苯甲醛	5736-85-6
128	Parathion	巴拉松	56-38-2
129	Paris green	醋酸亞砷酸銅	12002-03-8
130	<i>p</i> -dichlorobenzene	對-二氯苯	2444-46-4
131	Pentachlorophenate sodium; pentachlorophenoxide sodium	五氯酚鈉	131-52-2
132	Pentachlorophenol and its salts	五氯酚及其鹽類	---
133	Pentamethylene dipropionate	五亞甲基二丙酸	10025-09-9
134	Phenthoate	賽達松	2597-03-07
135	Phosmet	亞胺硫磷	732-11-6
136	Phosphamidon	福斯胺	13171-21-6
137	Phosphine	磷化氫	7803-51-2
138	Phoxim	巴賽松	14816-18-3
139	Pindone	2-新戊醯茛-1,3-二酮	83-26-1
140	Piperonyl butoxide; piperonyl ether butoxide	增效醚	51-03-6
141	Piperonyl cyclohexanone	增效環己酮	12261-99-3
142	Pirimiphos-methyl	甲基嘧啶磷	29232-93-7
143	<i>p</i> -isopropylphenylethyl alcohol	Benzeneethanol 苯乙醇	10099-57-7
144	Plifenate	三氯殺蟲酯	21757-82-4
145	<i>p</i> -methoxybenzyl alcohol	對茴香醇	105-13-5
146	Polyalkylene glycol stearate	聚亞烷基醇硬脂酸	---
147	Promecarb	普滅克	2631-37-0
148	Propetamphos	胺丙畏	31218-83-4
149	Propoxur	殘殺威	114-26-1
150	Prothiofos	丙硫磷	34643-46-4
151	Pyrethrins	除蟲菊酯	8003-34-7
152	Pyrethroids	除蟲菊精類	---
153	Quintozene; PCNB	五氯硝基苯	82-68-8
154	Red squill	紅海蔥	507-60-8
155	Rotenone	魚藤精	83-79-4
156	Ryania	魚尼丁	15662-33-6
157	Scilliroside	海蔥素	507-60-8
158	Sodium fluoride	氟化鈉	7681-49-4

項次	化學品名稱	中文名稱	CAS NO.
159	Strychnine sulfate	硫酸馬錢子鹼	60-41-3
160	Sulfluramid	氟蟲胺	4151-50-2
161	Temephos	亞培松	3383-96-8
162	Tetrachlorvinphos	殺蟲畏	22248-79-9
163	Thallium sulfate	硫酸亞鉍	7446-18-6
164	Thanite	異龍腦硫氰醋酸酯	115-31-1
165	Toxaphene; camphechlor	毒殺芬	8001-35-2
166	Trichlorfon	三氯松	52-68-6
167	Warfarin	殺鼠靈	81-81-2
168	Zinc phosphide	磷化鋅	1314-84-7

註：---表尚無中譯名稱

泰國於 1977 年開始規範禁用之環境用藥，至今共計 84 種成分為高急性毒、可能致癌、長殘留效果、生殖與胎兒中毒影響等其他因素列入禁用名單，如表 2.2-3 所示。

表 2.2-3 禁用之環境用藥清單

項次	化學品名稱	中文名稱	使用類型	生效年月	禁用原因
1	chlordimeform	殺蟲脒	殺蟲劑	1977.04	可能致癌
2	leptophos	福賜松	殺蟲劑	1977.04	具致癌傾向，故製造商自願將產品撤出市場
3	BHC	六氯苯	殺蟲劑	1980.03	極長殘留效果、可能致癌
4	sodium arsenite	亞砷酸鈉	殺蟲劑	1981.01	土壤持久性、可能造成胎兒中毒影響
5	endrin	安特靈	殺蟲劑	1981.07	長殘留效果、使用者與消費者高風險、殘留超出最高殘留限量，有害非目標生物，故種子輸出遭拒、對魚劇毒
6	DDT	滴滴涕	殺蟲劑	1983.03	可能致癌、長殘留效果
7	toxaphene	毒殺芬	殺蟲劑	1983.03	可能致癌、長殘留效果
8	2,4,5-T	2,4,5-三氯酚	除草劑	1983.09	可能致癌、胎兒中毒影響、長殘留效果
9	TEPP	焦磷基四乙酯	殺蟲劑	1984.06	極高急性毒、使用者高風險
10	EDB	二溴乙烷	熏蒸劑	1986.07	可能致癌、胎兒中毒影響
11	sodium chlorate	氯酸鈉	除草劑	1986.10	強氧化劑、高易燃、易爆、儲存高風險
12	dinoseb	達諾殺	除草劑	1986.11	可能造成畸胎與致癌
13	captafol	四氯丹	殺菌劑	1987.04	可能致癌
14	fluoroacetamide	氟乙醯胺	殺鼠劑	1987.07	極高急性毒、使用者高風險

項次	化學品名稱	中文名稱	使用類型	生效年月	禁用原因
15	sodium fluoroacetate	氟乙酸鈉	殺鼠劑	1987.07	極高急性毒、使用者高風險
16	cyhexatin	錫蟊丹	殺蟊劑	1988.05	環境高風險(因含重金屬)
17	parathion ethyl	巴拉松	殺蟲劑	1988.05	對人具高急性毒、針對皮膚毒性
18	dieldrin	地特靈	殺蟲劑	1988.05	長殘留效果、人體與動物之生物累積、使用者對於同類的其他殺蟲劑具較高風險
19	aldrin	阿特靈	殺蟲劑	1988.09	長殘留效果、人體與動物之生物累積
20	heptachlor	飛佈達	殺蟲劑	1988.09	長殘留效果、人體與動物之生物累積
21	daminozide	亞拉生長素	植物生長調節劑	1989.04	可能致癌
22	binapacryl	百蟊克	殺蟊劑	1991.02	可能致癌、胎兒中毒影響
23	pentachlorophenol	五氯酚	殺菌劑	1993.08	高急性毒、皮膚損害、人體皮膚與動物快速吸收、環境持久性
24	pentachlorophenate sodium	五氯酚鈉	殺菌劑	1993.08	高急性毒、皮膚傷害、人體皮膚與動物快速吸收、環境持久性
25	mercury compounds	汞化物	殺蟲劑	1993.08	高急性毒、環境持久性、對魚與水生動物具毒
26	ethylene chloride	1,2-二氯乙烷	燻蒸劑	1994.09	可能致癌
27	aminocarb	氨基	殺蟲劑	1994.09	極低 ADI、使用者高風險
28	bromophos	溴硫磷	殺蟲劑	1994.09	極低 ADI、使用者高風險
29	bromophos ethyl	溴硫磷乙基	殺蟲劑	1994.09	極低 ADI、使用者高風險
30	demeton	滅賜松	殺蟲劑	1994.09	極低 ADI、使用者高風險
31	fentin	三苯醋錫	殺菌劑	1994.09	極低 ADI、使用者高風險
32	nitrofen	護谷	除草劑	1994.09	極低 ADI、使用者高風險
33	aramite	阿蟊特	殺蟊劑	2000.05	可能致癌
34	chlordan	可氯丹	殺蟲劑	2000.05	可能致癌、長殘留效果、對環境與生物有不利影響
35	chlordecone	十氯酮	殺蟲劑	2000.05	可能致癌
36	chlorophenols	氯酚	除草劑	2000.05	可能致癌
37	2,4,5-T	2,4,5-三氯酚	除草劑	2000.05	可能致癌
38	phenothiol	酚硫	除草劑	2000.05	可能致癌
39	MCPB	加撲草	除草劑	2000.05	可能致癌
40	mecoprop	2-(4-氯-2-甲基酚氧基)丙酸	除草劑	2000.05	可能致癌
41	DBCP	二溴氯丙烷	燻蒸劑	2000.05	可能致癌
42	monocrotophos	亞素靈	殺蟲劑	2000.05	高急性毒、使用者高風險

項次	化學品名稱	中文名稱	使用類型	生效年月	禁用原因
43	azinphos ethyl	谷速松	殺蟲劑	2000.05	高急性毒、使用者高風險
44	mevinphos	美文松	殺蟲劑	2000.05	極高急性毒、使用者高風險
45	phosphamidon	福斯胺	殺蟲劑	2000.05	極高急性毒、使用者高風險
46	azinphos methyl	谷速松	殺蟲劑	2000.06	高急性毒、使用者高風險
47	calcium arsenate	砷酸鈣	殺蟲劑、除草劑	2000.06	高急性毒、使用者高風險
48	chlorthiophos	克硫松	殺蟲劑、殺蟎劑	2000.06	高急性毒、使用者高風險
49	cycloheximide	環己亞胺	殺菌劑	2000.06	高急性毒、使用者高風險
50	demephion	田樂磷(中國)	殺蟲劑	2000.06	高急性毒、使用者高風險
51	dimefox	甲氟磷(二(二甲胺基)氟化磷)	殺蟲劑、殺蟎劑	2000.06	高急性毒、使用者高風險
52	dinoterb	特樂酚	除草劑	2000.06	高急性毒、使用者高風險
53	disulfoton	二硫松	殺蟲劑、殺蟎劑	2000.06	高急性毒、使用者高風險
54	DNOC	4,6-二硝基鄰甲酚	殺蟲劑	2000.06	高急性毒、使用者高風險
55	fensulfothion	繁福松	殺線蟲劑	2000.06	高急性毒、使用者高風險
56	fonofos	大福松	殺蟲劑	2000.06	高急性毒、使用者高風險
57	mephospholan	美福松	殺蟲劑	2000.06	高急性毒、使用者高風險
58	paris green	醋酸亞砷酸銅	殺蟲劑	2000.06	高急性毒、使用者高風險
59	phorate	氟瑞松	殺蟲劑	2000.06	極高急性毒、使用者高風險
60	prothoate	飛克松	殺蟲劑	2000.06	高急性毒、使用者高風險
61	schradan	八甲基焦磷醯胺	殺蟲劑、殺蟎劑	2000.06	高急性毒、使用者高風險
62	sulfotep	二硫焦磷酸四乙酯	殺蟲劑、殺蟎劑	2000.06	高急性毒、使用者高風險
63	amitrole	3-胺基-1,2,4-三氮唑	除草劑	2001.12	可能致癌
64	beta-HCH	β -蟲必死	殺蟲劑	2001.12	動物生腫瘤、不良之肝臟影響、生殖與胎兒中毒影響、環境持久性
65	cadmium and cadmium compounds	鎘及鎘化合物	殺菌劑(草皮)	2001.12	可能致癌、腎損害
66	carbon tetrachloride	四氯化碳	燻蒸劑	2001.12	極高急性毒、使用者高風險、可能致癌、破壞臭氧層
67	chlorobenzilate	克氯苯	殺菌劑(種子)	2001.12	不良之睪丸影響、癌症風險
68	copper arsenate hydroxide	砷酸銅	殺蟲劑、殺菌劑	2001.12	突變風險、致畸性、致癌、極高急性毒、使用者高風險
69	ethyl hexyleneglycol	2-乙基-1,3-己二醇	殺蟲劑	2001.12	孕婦使用造成胎兒出生缺陷風險研究

項次	化學品名稱	中文名稱	使用類型	生效年月	禁用原因
70	ethylene oxide	環氧乙烷	驅蟲	2001.12	可能對人致癌、致人體基因突變
71	hexachlorobenzene	六氯苯	驅蟲	2001.10	可能對人致癌、環境持久性極強
72	lead arsenate	砷酸鉛	PGR、殺蟲劑	2001.12	致瘤風險、致突變性、致癌、高急性毒
73	lindane	靈丹	殺蟲劑	2001.12	環境持久性、食物鏈之生物累積、可疑致癌物
74	MGK Repellent	MGK 忌避劑	驅蟲	2001.12	畸形的不良影響、減少卵巢活動、致癌、良性腫瘤發展
75	mirex	滅蟻樂	殺蟲劑	2001.12	可能對人致癌、環境持久性極強、食物鏈之生物累積
76	o-dichlorobenzene	鄰-二氯苯	除草劑、殺蟲劑	2001.12	環境持久性、實驗動物之突變效應
77	pyrinuron(piriminil)	滅鼠優	殺鼠劑	2001.12	高急性毒、糖尿病、失去自主控制血壓
78	safole	黃樟腦	驅蟲劑	2001.12	對鼠、狗致癌
79	strobane	蝨除滅	殺蟲劑	2001.12	環境持久性、生物累積、可能致癌
80	TDE or DDD	滴滴滴	殺蟲劑	2001.12	可能致癌、環境持久性、人與動物之脂肪組織與神經系統中毒、鳥類與魚類之生殖影響
81	thallium sulfate	硫酸亞鉈	殺鼠劑	2001.12	高急性毒、環境持久性、緩慢累積毒、損傷重要器官或死亡、對非目標生物有害
82	methamidophos	達馬松	殺蟲劑	2003.04	高急性毒、使用者高風險
83	methyl parathion	甲基巴拉松	殺蟲劑	2004.10	
84	endosulfan	安殺番	殺蟲劑	2004.10	

(四)許可證類型

1.製造業許可證

製造業許可證之有效期間為 3 年，而註冊申請製造業許可證所需繳交之文件如下所列：

- (1)製造業許可證申請單(如附件三所示)
- (2)繳交費用(首次申請)
- (3)繳交年費之收據副本(非首次申請)
- (4)危害物質產品註冊文件影本(無強制規定需檢附)

- (5)委託證明與委託人及受託人之身分證(若為委託辦理)
- (6)泰國身分證或外國人識別證
- (7)工廠許可證之影本
- (8)危害物質材料與產品儲存地點(附近環境概況圖)
- (9)製造場所、材料與產品儲藏地點之建築架構圖
- (10)事故預防之緊急處理事項計畫
- (11)產品製造過程
- (12)負責人之專業技能與知識
- (13)產品包裝文件
- (14)物質安全資料表

2.輸入業許可證

輸入業許可證之有效期間為 3 年，而註冊申請輸入業許可證所需繳交之文件如下所列：

- (1)輸入業許可證申請單(如附件三所示)
- (2)繳交費用(首次申請)
- (3)繳交年費之收據影本(非首次申請)
- (4)危害物質產品註冊文件影本(無強制規定需檢附)
- (5)工廠許可證之影本
- (6)泰國身分證或外國人識別證
- (7)危害物質之使用執照(合約)影本
- (8)委託證明與委託人及受託人之身分證(若為委託辦理)
- (9)土地、倉庫租任合約證本與危害物質持有許可證影本
- (10)危害物質材料與產品儲存地點(附近環境概況圖)
- (11)製造場所、材料與產品儲藏地點之建築架構圖

(12)產品包裝文件

(13)緊急狀況下之預防與制止計畫

(14)包裝若為罐裝需經工程師認證並出示證明

3.輸出業許可證

輸出業許可證之有效期間為 3 年，而註冊申請輸出業許可證所需繳交之文件如下所列：

(1)輸出業許可證申請單(如附件三所示)

(2)身分證影本與外國人識別證

(3)公司已註冊證書影本

(4)委託證明與委託人及受託人之身分證(若為委託辦理)

(5)繳交費用(首次申請)

(6)繳交年費之收據影本(非首次申請)

(7)危害物質產品註冊文件影本(無強制規定需檢附)

(8)產品包裝照片或照片影本

4.持有業許可證

持有業許可證之有效期間為 3 年，而註冊申請持有業許可證所需繳交之文件如下所列：

(1)持有業許可證申請單(如附件三所示)

(2)繳交費用(首次申請)

(3)繳交年費之收據影本(非首次申請)

(4)危害物質產品註冊文件影本(無強制規定需檢附)

(5)委託證明與委託人及受託人之身分證(若為委託辦理)

(6)身分證影本或外國人識別證

(7)工廠許可證之影本

- (8)危害物質材料與產品儲存地點(附近環境概況圖)
 - (9)製造場所、材料與產品儲藏地點之建築架構圖
 - (10)緊急狀況下之預防與制止計畫
 - (11)包裝若為罐裝需經工程師認證並出示證明
- (五)標示說明(標準)規定

危害物質產品標示項目如下所列：

- 1.產品名稱、類型、劑型與含量
- 2.有效成分名稱與濃度
- 3.中毒症狀與急救方法(建議就醫並攜帶產品標示)
- 4.製造日期或有效日期
- 5.註冊碼
- 6.警告標語
- 7.標示圖(如表 2.2-4 所示)

表 2.2-4 危害物質之分類

類別	危害程度	圖示底色	範例
IA	毒性極強	紅色	
IB	毒性強	紅色	
II	毒性中等	黃色	
III	毒性弱	藍色	

(六)罰則

- 1.製造/輸入/輸出/持有被禁用的危害物質，初犯或無知者處泰幣 800,000 元(約台幣 698,000 元)以下罰鍰;再犯或明知故犯者處泰幣 100,000,000 元(約台幣 87,250,000 元)以下罰鍰與(或)10 年以下有期徒刑。
- 2.違反製造/輸入/輸出/持有危害物質規範、未事先通知、從事偽造或撤銷註冊之產品行為者，初犯或無知者處泰幣 500,000 元(約台幣

436,250 元)以下罰鍰;再犯或明知故犯者處泰幣 700,000 元(約台幣 610,750 元)以下罰鍰與(或)7 年以下有期徒刑。

3.違反製造/輸入/輸出/持有危害物質規範、未事先通知、從事不符合標準或撤銷註冊之產品行為者,初犯或無知者處泰幣 400,000 元(約台幣 349,000 元)以下罰鍰;再犯或明知故犯者處泰幣 500,000 元(約台幣 436,250 元)以下罰鍰與(或)5 年以下有期徒刑。

4.違反製造/輸入/輸出/持有危害物質規範、未事先通知、從事未註冊產品行為者,處泰幣 300,000 元(約台幣 261,750 元)以下罰鍰與(或)3 年以下有期徒刑。

5.違反製造/輸入/輸出/持有危害物質規範、未事先通知、從事劣質產品行為者,處泰幣 100,000 元(約台幣 87,250 元)以下罰鍰與(或)1 年以下有期徒刑。

資料來源：

- 1.泰國公共衛生部食品藥物管理局危害物質控制組(Food and Drug Administration 的 Hazardous Substances Control Division)：
<http://www.fda.moph.go.th/psiond/hazardlist.htm>

2.2-2 印尼環境用藥管理規定調查評析

印尼於 1998 年 9 月 11 日簽訂鹿特丹公約；並於 2001 年 5 月 23 日簽訂斯德哥爾摩公約，自 2004 年 5 月 17 日施行。

一、管理背景

印尼的環境用藥(規範於農業用藥底下)管理由印尼農業部(Kementerian Pertanian Republik Indonesia; 英譯為 Ministry of Agriculture Republic of Indonesia)所負責，自 1974 年起農業部即為國家規範各種農業相關部門之單位，亦為協調委員會跨部門和跨學科機構，主要負責提供農業政策和技術基礎，其網站首頁如圖 2.2-4 所示，網站資料架構如圖 2.2-5。



圖 2.2-4 印尼農業部網站首頁

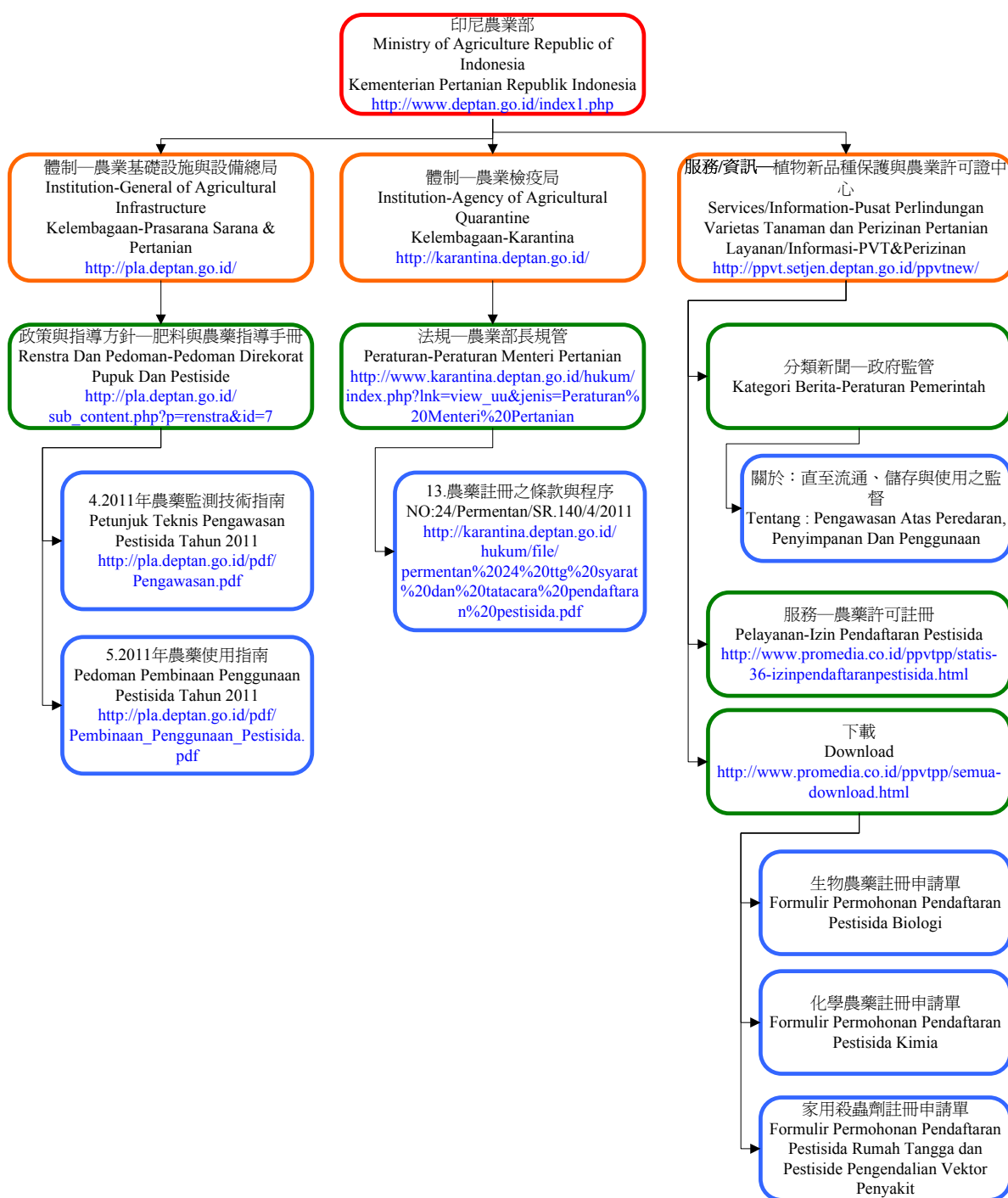


圖 2.2-5 印尼網站資料架構

二、管理法規依據與目的

印尼除害劑管理總則為 1973 年訂定發布之第七號法令—除害劑的販賣、儲存與使用控制，而最新修正的除害劑註冊條款與程序

(Nomor:24/Permentan/SR.140/4/2011)於 2011 年 4 月 8 日公布，如附件五所示。除害劑相關法規之主要目的為：

- (一)保護除害劑儲存、銷售與使用時造成之公眾與環境的有害影響
- (二)提高除害劑的使用效率與效益
- (三)支持綜合蟲害管理(Integrated Pest Management; IPM)系統的實施
- (四)提供除害劑在生產、採購、儲存與經銷活動之確定性

三、除害劑規範

(一)管制範圍

印尼農業部所規範的除害劑包含化學物質、微生物、病毒與其他物質，規範除害劑的使用範圍如下所列：

- 1.控制或預防病蟲害的作物和作物的生產
- 2.控制雜草
- 3.造成葉片死亡和避免意外的增長
- 4.調節或刺激植物生長(不包括化肥增長)
- 5.控制或預防其他害蟲或家畜
- 6.控制或預防水中害蟲
- 7.控制和預防動物和微生物出現在家庭、建築和運輸設備中
- 8.控制和預防造成人類或動物疾病或需受到植物、土壤、水保護的有害生物

除此之外，規範除害劑之使用領域包括下列七項：

- 1.作物管理
- 2.牲畜業
- 3.漁業
- 4.林業

5.儲存的農產品

6.住區與家庭(同等我國環境用藥)

7.檢疫與裝運前

(二)註冊申請

印尼除害劑許可證申請單位為農業部所屬的植物新品種保護與農業許可證中心(Pusat Perlindungan Varietas Tanaman dan Perizinan Pertanian; PVTTP; 英譯為 Center for Plant Variety Protection and Agriculture Permit),此中心為 2010 年 12 月 1 日由農業部底下的植物新品種保護中心(Pusat Perlindungan Varietas Tanaman; PPVT)與許可證中心(Pusat Perizinan dan Investasi; PPI)兩單位合併之新中心。任何除害劑許可證均需向植物新品種保護與農業許可證中心提出申請,其註冊申請流程如圖 2.2-6 所示。

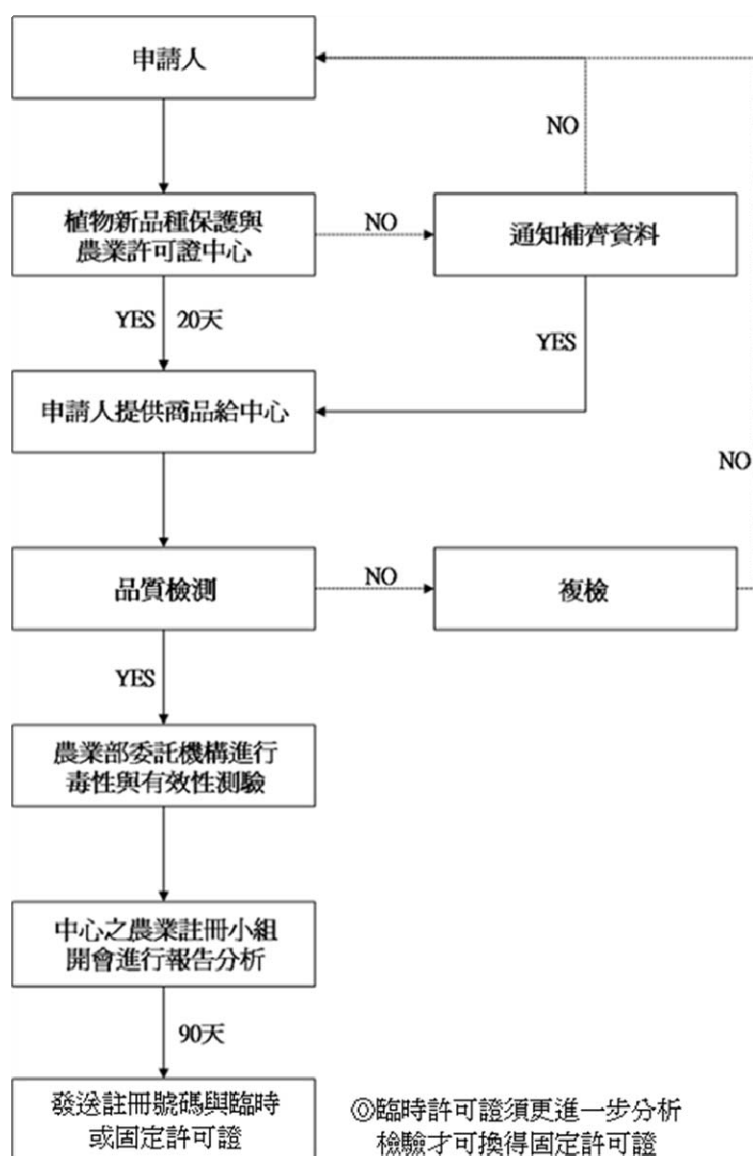


圖 2.2-6 許可證註冊申請流程

1. 申請類別

除害劑註冊申請分為三大類：生物除害劑、化學除害劑與家用殺蟲劑(即環境用藥)。以下列出家用殺蟲劑之藥效試驗與毒理學測驗項目，節錄家用殺蟲劑註冊申請單(如附件六所示)。

- (1) 藥效試驗(包含試驗生物、實驗位置與數量、時間及實驗者/數據來源)
- (2) 急性毒性(包含口服、皮膚與吸入、試驗生物種類、配方、技術)

及有效成分)

(3)眼睛與皮膚刺激性

(4)過敏

(5)短期毒性

(6)長期毒性

(7)醫學數據(包含臨床症狀、中毒症狀、診斷中毒、急救與醫療狀況)

2.申請人資格

申請人必須是印尼公民，或是印尼合法之公司，並且符合下列條件：

(1)公司契約與合法公司證明

(2)營業許可證或除害劑貿易公司證書

(3)納稅人識別號碼

(4)戶籍證/身分證

(5)聲明其為簽署註冊產品之相關信件者

(6)供應商提供有效成分擔保函

3.許可證類型

許可證會依商品之檢驗數據詳細度分為試用、臨時與固定三個等級：

(1)試用許可證

申請人僅需提供註冊產品品質、有效性與安全性之證明，農業部即頒發有效期間為 1 年的試用許可證，並可於期滿兩個月前申請展延 1 次(即 1 年)，但取得試用許可證的產品不可進行販賣或任何商業活動。

(2)臨時許可證

申請臨時許可證之公司必須擁有完整的技術與管理，其註冊產品需通過申請流程之所有檢驗(品質、毒性與有效性)，即頒發有效期間為 1 年的臨時許可證，並可於期滿兩個月前申請展延 1 次(即 1 年)。取得臨時許可證之產品可進行有限(限制商品數量、劑量、濃度或應用)的製造與販賣。

(3)固定許可證

註冊產品通過申請流程檢測，並擁有完整之數據與資料時，即可頒發有效期間為 5 年的固定許可證，並可於期滿兩個月前申請展延，此許可證之展延申請需再次提出產品檢測結果。取得固定許可證之產品可進行製造與販賣，除此之外，當產品取得展延後，便可使用於其他未註冊產品上。

4.許可證轉讓

臨時或固定許可證之註冊碼若符合下列因素即可轉讓：

- (1)產品所有人指定註冊碼持有人
- (2)產品所有人將所有權轉讓給他人
- (3)公司合併
- (4)許可證變更所有人或持有人

5.註冊變更

註冊變更項目如下所示：

- (1)產品名稱或有效成分名稱
- (2)容器或包裝
- (3)物質技術
- (4)原產地有效成分
- (5)溶劑
- (6)乳化劑

(7)載體材料

(8)有效成分含量(有效成分之極限)

(9)有效成分標準與技術

(10)註冊與許可使用

(11)獲准發給臨時許可證

(12)用量或如何施用除害劑(與有效性測驗結果一致)

(三)限用之規範

註冊之商品若符合以下條件，列為限用名單：

- 1.製劑腐蝕眼睛(造成眼睛組織不可運轉之缺損)或造成角膜刺激或損傷達 7 天以上
- 2.製劑腐蝕皮膚(造成真皮組織傷疤或損壞)或造成嚴重刺激達 72 小時以上
- 3.若依照標示上註明或根據通常之使用方法，卻仍然引起慢性中毒或因人類接觸而殘留物
- 4.四小時內經吸入 LC_{50} 為 0.05 mg/l
- 5.破壞臭氧層

除此之外，規範之限用有效成分如下六種：

- 1.巴拉刈(Paraquat)
- 2.磷化鋁(Aluminium phosphide)
- 3.磷化鎂(Magnesium phosphide)
- 4.硫氟化物(Sulfuryl fluoride)
- 5.溴化甲烷(Methyl bromide)
- 6.磷化鋅(Zinc phosphide)

由於限用之成分具危險性，因此僅只擁有限用培訓證書者能生

產限用之產品，且其販賣只可交由經銷商或零售商來進行。印尼公告之限用清單如表 2.2-5 所示。

表 2.2-5 限用之清單

項次	商品名稱	有效成分名稱與比例
1	Celphide 56 PI	磷化鋁 Aluminium phosphide : 56%
2	Celphos 56 T	磷化鋁 Aluminium phosphide : 56%
3	Gramoxone	巴拉刈 Paraquat : 276 g/l (paraquat ion equivalent : 200 g/l)
4	Gramoxone S	巴拉刈 Paraquat : 276 g/l (paraquat ion equivalent : 200 g/l)
5	Herbatop 276 AS	巴拉刈 Paraquat : 276 g/l (paraquat ion equivalent : 200 g/l)
6	Kovin 80 P	磷化鋅 Zinc phosphide : 80%
7	Magtoxin 60 Pt	磷化鎂 Magnesium phosphide : 57%
8	Mestagas	磷化鋁 Aluminium phosphide : 60.7%
9	Metabrom 98 LG	溴化甲烷 Methyl bromide : 98%
10	Mebrom 98 LG	溴化甲烷 Methyl bromide : 98%
11	Nuvan 50 EC	二氯松 Dichlorvos : 500 g/l
12	Nuvantop 500 EC	二氯松 Dichlorvos : 500 g/l
13	Para-col	巴拉刈 Paraquat : 248.4 g/l (paraquat ion equivalent : 180 g/l)
14	Phostoxin 56	磷化鋁 Aluminium phosphide : 56%
15	Phostoxin 57 P	磷化鋁 Aluminium phosphide : 57%
16	Sobrom 98 LG	溴化甲烷 Methyl bromide : 98%
17	Supracide 40 EC	Metidation : 420 g/l
18	Termisidin 350 EC	安殺番 Endosulfan : 332.5 g/l

(四)禁用之規範

遵守世界衛生組織(World Health Organization; WHO)所規範之 Ia 極危險類與 Ib 高危險類的有效成分，印尼訂定公布之禁用有效成分清單如表 2.2-6 所示。

表 2.2-6 印尼禁用之有效成分

項次	有效成分	中文名稱	CAS. NO
1	2,4,5-Trichlorophenol	2,4,5-三氯酚	93-76-5
2	2,4,6-Trichlorophenol	2,4,6-三氯酚	95-95-4
3	<i>o</i> -(4-Bromo-2,5-dichlorophenyl)	溴硫磷乙基	4824-78-6
4	Aldicarb	得滅克	116-06-3
5	Aldrin	阿特靈	309-00-2
6	1,2-dibromo-3-chloropropane (DBCP)	二溴氯丙烷	96-12-8
7	Cyhexatin	錫蟎丹	13121-70-5
8	Dichloro diphenyl trichloroethane (DDT)	滴滴涕	50-29-3
9	Dieldrin	地特靈	60-57-1

項次	有效成分	中文名稱	CAS. NO
10	2,3-Dichlorophenol	2,3-二氯苯酚	576-24-9
11	2,4-Dichlorophenol	2,4-二氯酚	120-83-2
12	2,5-Dichlorophenol	2,5-二氯酚	583-78-8
13	Dinoseb	達諾殺	88-85-7
14	Ethyl <i>p</i> -nitrophenyl benzenethiophosponate (EPN)	一品松	2104-64-5
15	Endrin	安特靈	106-93-4
16	Endosulfan	安殺番	115-29-7
17	Ethylene dibromide (EDB)	二溴乙烷	72-20-8
18	Formaldehyde	甲醛	50-00-0
19	Yellow phosphorus	黃磷	12185-10-3
20	Heptachlor	飛佈達	76-44-8
21	Captafol	四氯丹	2425-06-1
22	Chlordane	可氯丹	57-74-9
23	Chlordimeform	殺蟲脒	19750-95-9
24	Leptophos	福賜松	21609-90-5
25	Lindane	靈丹	58-89-9
26	Methoxychlor	甲氧基氯	72-43-5
27	Mevinphos	美文松	26718-65-0
28	Monosodium methane arsonate (MSMA)	甲基膦酸單鉍	2163-80-6
29	Sodium chlorate	氯酸鈉	7775-09-9
30	Tribromophenol	2,4,6-三溴酚	118-79-6
31	Methyl parathion	甲基巴拉松	298-00-0
32	Halogen phenol(pentachlorophenol (PCP) and its salt)	五氯酚	87-86-5
33	Pesticide contain active salmonella	沙門氏桿菌	---
34	Arsenic compounds	三氧化二砷	1327-53-3
35	Mercury compounds	汞化物	10112-91-1, 7546-30-7, 7487-94-7, 21908-53-2
36	Strychnine	番木鱉鹼	57-24-9
37	Telodrin	碳氯靈	297-78-9
38	Toxaphene	毒殺芬	8001-35-2
39	Mirex	滅蟻樂	2385-85-5

(五)標示說明(標準)規定

標示上需登載下列 17 項資料：

- 1.商品名
- 2.種類

- 3.有效成分名稱與含量
- 4.內容或包裝淨重
- 5.安全警告
- 6.分類與危險符號
- 7.安全指示
- 8.中毒症狀
- 9.急救救援
- 10.醫療
- 11.儲存方法
- 12.使用說明
- 13.標示圖(如表 2.2-7 所示)
- 14.註冊號碼
- 15.登記編號之持有人姓名、地址與電話號碼
- 16.生產數量、日期與有效日期
- 17.後續棄置及處理方法

除了上述資料，每個標示皆需註明”使用前請先閱讀本標示”。若容器尺寸太小無法將所有標示列出時，則將所有標示完整列於瓶身外的附加標示上，並隨同容器一起產出，且於容器上註明”請閱讀容器上之完整標示說明”。此外，其餘危險警告標誌如：炸藥、氧化性物質、腐蝕性物質、刺激物材料、易燃材料等，皆須一一標明。

表 2.2-7 危害之分類與符號

危險分類	標示上附加之必要說明			
	危險訊息	顏色	危險符號	文字符號
極度危險	劇毒	深棕色		 Very Poisonous
非常危險	有毒	暗紅色		 Poisonous
危險	危險	暗黃色		 Dangerous
普通危險	注意	淺藍色	---	Attention!!!
正常使用不危險	---	綠色	---	---

(六)行政罰則

- 1.標示不完整或變更未註冊時，可處撤銷註冊碼與許可證。
- 2.註冊碼持有人無法保證生產和(或)分布之除害劑數量，可處撤銷註冊碼與許可證。
- 3.註冊法持有人未報告變更之原產地有效成分，可處撤銷註冊碼與許可證。
- 4.持有臨時或固定許可證之產品若影響大眾健康與環境永續性時，進行審查或撤銷許可證。

資料來源：

- 1.印尼農業部(Kementerian Pertanian Republik Indonesia；Ministry of Agriculture Republic of Indonesia)：<http://www.deptan.go.id/index1.php>

2.2-3 越南環境用藥管理規定調查評析

越南簽訂之鹿特丹公約自 2007 年 5 月 7 日施行，而斯德哥爾摩公約於 2001 年 5 月 23 日簽訂，自 2002 年 7 月 22 日施行。

一、管理背景

近年來，越南環境問題越顯突出，因此政府對於環境管理更為重視，除了設立資源與環境部外，其餘有關部門也紛紛設立環境局，例如衛生部設立之衛生環境管理局、公安部設立之環境警察局等等。

針對環境用藥方面，由衛生部之衛生環境管理局負責，除了行政管理外還包含執行性的任務。越南衛生部網站首頁如圖 2.2-7 所示，網站資料架構如圖 2.2-8。



圖 2.2-7 越南衛生部網站首頁

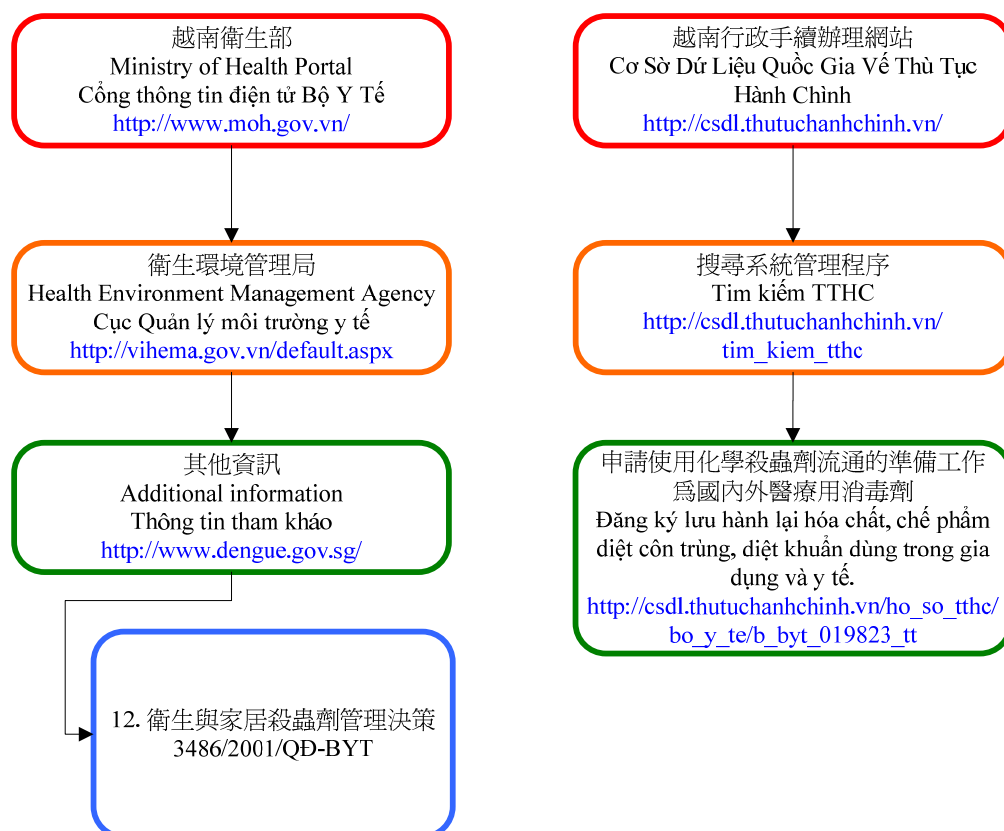


圖 2.2-8 越南網站資料架構

二、法源依據及目的

越南衛生部於 2001 年訂定發布衛生與居家殺蟲劑管理決策(字號 3486/2001/QĐ-BYT)，用以規範環境用藥之製造、販售與流通。而最新之衛生與居家殺蟲劑管理決策(字號 29/2011/TT-BYT)於 2011 年 6 月訂定發布，自 2012 年 1 月 1 日施行，但其內容至今仍未公佈。越南目前的環境用藥管理仍以 2001 年發布之決策(字號 3486/2001/QĐ-BYT)所規範。

三、註冊規定

(一)製造許可

環境用藥製造業者必須向衛生部提出申請，且符合下列資格：

- 1.申請人必須具備殺蟲、抗菌生產領域之大學學位
- 2.員工、技術人員具備生產之熟練技能
- 3.良好之工作環境或由上級直接頒發證書以生產

4.產品具優良之品保品管

5.承諾實施環境法

6.制定緊急處理設施(爆炸、自然災害、意外事故、中毒等)

(二)販賣許可

環境用藥販賣業者必須向衛生部提出申請，且符合下列資格：

- 1.對於企業而言，經營者必須具備販賣殺蟲、殺菌相關化學品之高中以上程度；對於個體而言，必須參加專業培訓取得證書。
- 2.取得衛生部頒發之販賣許可
- 3.常用之環境用藥(蚊香、殺蟲噴霧、電蚊製劑、滅蟑與滅蠅)不需取得販賣許可
- 4.販賣場所之安全性
- 5.確保販賣之環境用藥產品運輸符合法規
- 6.環境用藥不得與醫藥、糧食、飲料與其他消費品一同販售，第三條規定之常見環境用藥除外。

(三)產品檢測

於越南流通之所有環境用藥產品皆須向衛生部申請檢測，並交由衛生部委託機構進行實驗，完成檢測並通過規範之產品才可進一步註冊申請流通許可。

(四)流通許可

通過檢測之產品即可向衛生部申請流通許可，註冊申請之提交資料如下所列：

- 1.註冊申請單
- 2.製造許可或販賣許可證明
- 3.檢測結果(產品成分與濃度)
- 4.產品自由銷售證書(輸入)

5.附加說明(產品使用手冊、副作用與其處理方式、儲存方法與生產過程)

6.產品標示登記

每項產品之流通許可費用為越南盾 500,000 元(約新台幣 620 元),流通許可證之有效期間為 5 年,並可於期滿 6 個月前申請展延。越南將於每年公布取得流通許可證之產品明細,表 2.2-8 為 2001 年 12 月所公布的 13 種可流通產品清單。

表 2.2-8 2001 年可流通之產品清單

項次	產品名稱	有效成分與濃度	製造商名稱	註冊碼
1	ARS NO MAT P45	0.666% Prallethrin 普亞列寧	Công ty TNHH TM Viễn Phát	VNDP-HC-081-12-01
2	KILLPEST	0.05% Deltamethrin 地滅寧+ 0.15% Etofenprox 依芬寧	Công ty Thuốc sát trùng Việt Nam	VNDP-HC-082-12-01
3	CRACKDOWN 10SC	1% Deltamethrin 地滅寧	Công ty TNHH Aventis CropScience Việt Nam	VNDP-HC-083-12-01
4	HIBISOL	0.5% Chlorhexidine Gluconate 氯胍	VPĐD thường trú AstraZeneca Singapore Pte, Ltd. tại TP. Hà Nội	VNDP-HC-084-12-01
5	Nhang trừ muỗi VICTOR NOMOS	0.3% <i>d</i> -Allethrin 異亞列寧	Cơ sở Mỹ Hào Sài Gòn	VNDP-HC-085-12-01
6	JUMBO Z	0.3% <i>d</i> -Allethrin 異亞列寧(Richalpha 90EC)	Công ty HH Technopia Việt Nam	VNDP-HC-086-12-01
7	AGNIQUE MMF	100% Poly(oxy-1,2-ethanediyl) 聚乙二醇二甲醚, -isooctadecyl-hydroxyl	Công ty TNHH Hoá Việt Nam	VNDP-HC-087-12-01
8	KEM CHÔNG MUỖI LIFEBOUY	7.5% DEET 敵避 + 1% DMP 磷酸二甲酯	Công ty liên doanh Lever Việt Nam	VNDP-HC-088-12-01
9	CIDEZYME	5% Protease 蛋白質水解酵素	Văn phòng đại diện thường trú Johnson & Johnson Medical S.A., tại TP. Hà Nội	VNDP-HC-089-12-01
10	DIAZIMON-D	10% Diazinon 大利松	Công ty Thuốc sát trùng Việt Nam	VNDP-HC-090-12-01
11	RICHALPHA 90EC	80% <i>d</i> -Allethrin 異亞列寧	Công ty TNHH Toàn Diện	VNDP-HC-091-12-01
12	PYNAMIN FORTE	≥90% <i>d</i> -Allethrin 異亞列寧	Văn phòng đại diện thường trú công ty Sumitomo Corporation tại TP. Hà Nội	VNDP-HC-092-12-01
13	GOLIATH GEL	0.05% Fipronil 芬普尼	Công ty TNHH Aventis CropScience Việt Nam	VNDP-HC-093-12-01

(五)標示說明(標準)規定

產品標示項目如下所列：

- 1.產品名稱
- 2.有效成分與濃度
- 3.劑型
- 4.製造商名稱、地址與電話
- 5.註冊碼
- 6.安全注意事項(預防環境用藥之負面影響)
- 7.中毒之緊急說明(中毒之處理方法)
- 8.世界衛生組織之毒性分類
- 9.警示圖案與標語

(六)罰則

- 1.衛生部將不定期的針對製造、販賣與流通環境用藥業者進行檢查，若違反衛生與居家殺蟲劑管理決策，則撤銷其許可並採取以下行動：
 - (1)立刻停止製造、販賣與通行，並通知客戶
 - (2)回收環境用藥
 - (3)回收環境用藥加工產品
 - (4)將事件起因、發展與處理之書面報告呈交給衛生部
- 2.違反衛生與居家殺蟲劑管理決策與其他法律之相關規定，根據違法行為之嚴重性，處行政罰則或刑事罰則，若造成損害者，依法規定進行補償。

資料來源：

- 1.越南衛生部(Ministry of Health Portal)：<http://www.moh.gov.vn/>

2.越南行政手續辦理(Cơ Sở Dữ Liệu Quốc Gia Về Thủ Tục Hành Chính)：

<http://csdl.thutuchanhchinh.vn/>

2.2-4 韓國環境用藥管理規定調查評析

韓國於 1999 年 9 月 7 日簽訂鹿特丹公約(Rotterdam Convention)，自 2004 年 2 月 24 日施行；而斯德哥爾摩公約(Stockholm Convention)，於 2001 年 10 月 4 日簽訂，並自 2004 年 5 月 17 日施行。

一、管理背景

韓國將環境用藥歸類為藥物中的非藥品類(non-pharmaceutical drugs)，其管理單位為韓國食品藥物管理局(Korea Food & Drug Administration; KFDA)，成立於 1996 年，主要負責規範食品、藥物、醫療設備與化妝品之安全性，並於 2009 年成立國家食品藥物評估研究所(National Institute of Food and Drug Safety Evaluation; NIFDS)，進行食品與藥物之研究與開發，以達到公共健康之最高水平為目的。韓國食品藥物管理局網站首頁如圖 2.2-9 所示。



圖 2.2-9 韓國食品藥物管理局網站首頁

二、法源依據及目標

韓國規範環境用藥之法律為製藥法(The Pharmaceutical Affairs Law)，於 1963 年 12 月 13 日訂定發布，最新之修正公布於 2004 年 1 月 29 日，如附件七所示。製藥法用以規範製藥的相關事宜，例如製造方法、輸入、儲存、販賣等事務，進而達到公共健康之目的。

三、註冊規定

製藥法中提及環境用藥註冊規定的概況，但其註冊事項之細節規範於 Ordinance of the Minister of Health and Welfare 底下。

(一)製造許可證

- 1.任何試圖製造之產品，必須由製造商向韓國食品藥物管理局申請許可，且提供完善設備之證明與產品用途、規範、管理等資訊。
- 2.提供新產品之安全性與有效性數據。
- 3.變更許可證的項目時，亦與韓國食品藥物管理局申請。
- 4.若違反 Ordinance of the Minister of Health and Welfare 規定內容、許可證被撤銷一年內或公司關閉，暫不頒發製造商許可證。

(二)輸入許可證

- 1.任何輸入之環境用藥產品，必須由輸入商需向韓國食品藥物管理局申請許可。
- 2.若為軍事緊急使用，國防部長需與韓國食品藥物管理局商討輸入數量。
- 3.提供完善設備之證明與產品用途、規範、管理等相關資訊。

(三)販賣許可證

經營產品之販賣行為，必須由販賣者向韓國食品藥物管理局申請許可，且申請者不可為產品製造商與輸入商。

四、標示說明(標準)規定

環境用藥標示說明需放置於包裝或附加紙條上，標示項目如下所列：

- (一)產品名稱
- (二)產品執照持有公司名稱和地址
- (三)容積或重量
- (四)產品證照號碼與日期
- (五)價格
- (六)主要成分名稱
- (七)儲存方法與有效期限
- (八)標明”非藥品”(non-pharmaceutical drugs)
- (九)其餘項目列於 Ordinance of the Minister of Health and Welfare

五、刑事罰則

- (一)任何從事環境用藥行為而未取得許可證者，處五年以下有期徒刑或韓元 20,000,000 元(約台幣 494,400 元)以下罰金。
- (二)違反製藥事務(列於 Ordinance of the Minister of Health and Welfare)者，處三年以下有期徒刑或韓元 10,000,000 元(約台幣 247,200 元)以下罰金。
- (三)製藥疏忽(事項列於 Ordinance of the Minister of Health and Welfare)者，處韓元 1,000,000 元(約台幣 24,720 元)以下罰金。

資料來源：

- 1.韓國食品藥物管理局(Korea Food & Drug Administration)：
<http://eng.kfda.go.kr/index.php>
- 2.世界衛生組織-國際衛生立法文摘(WHO-International Digest of Health Legislation)：
<http://apps.who.int/idhl-rils/results.cfm?language=english>

&type=ByTopic&strTopicCode=XVA&strRefCode=ROK

2.2-5 新加坡環境用藥管理規定調查評析

新加坡簽訂國際環境公約以管控環境用藥，斯德哥爾摩公約自 2001 年 5 月 23 日施行；而鹿特丹公約於 2005 年 5 月 24 日簽訂，自 2005 年 8 月 21 日施行。

一、管理背景

新加坡國家環境局(Nation Environment Agency; NEA)在 2002 年 7 月 1 日成立，其著重於環境政策的實施，全國包括環境保護、環境的衛生和氣象服務部門，包括工業，以及公共部門保持清潔和健康的居住環境。環境保護部之工作以監視、減少和防止環境污染，包括施行減少浪費、支援且最大限度地回收與節能措施，並負責垃圾焚燒廠和離岸垃圾衛生填埋廠操作管理。新加坡國家環境局網站首頁如圖 2.2-10 所示，資料網站架構如圖 2.2-11。



圖 2.2-10 新加坡國家環境局網站首頁

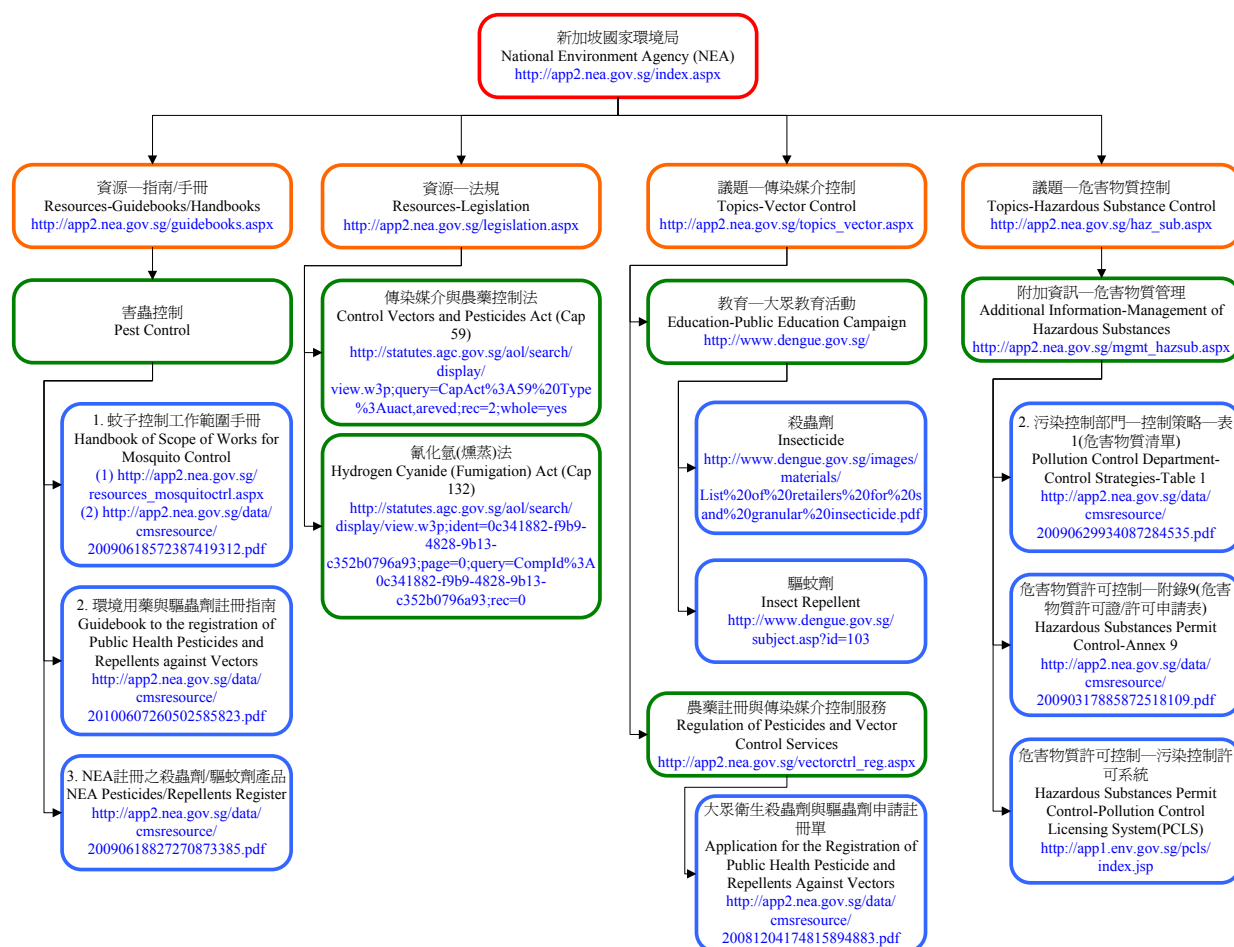


圖 2.2-11 新加坡網站資料架構

NEA 的污染控制部門(Pollution Control Department, 簡稱 PCD)管理所有在環境保護管理法(Environmental Protection and Management Act, 簡稱 EPMA)所規範的危害物質(Hazardous Substances, 簡稱 HS)的輸入、輸出、販售、儲存。

如果殺蟲劑包含危害物質時, 必須在 EPMA 的規範下符合 PCD 的許可, 其許可證/許可申請表如附件八所示(表格為 2003 年 1 月 1 日起使用)。目前新加坡所規範的危害物質清單共計 124 種, 如附件九所示(清單更新至 2011 年 10 月 8 日)。

二、法源依據及目標

新加坡居家害蟲管理法規為 Control of Vectors and Pesticides Act(未中

譯，後均簡稱為 CVPA 法規)於 1998 年 9 月 1 日開始實施。NEA 針對殺蟲劑與驅蚊劑產品於新加坡販售必須註冊主要目的為以下兩點：

(一)不造成公眾與環境不必要的威脅

(二)正確的標示如第四大點之標示說明(標準)規定所列，共計 20 項，此外，需包含註冊時所登記的有效成分(active ingredients)

三、註冊規定

(一)管制範圍

1.需註冊對象

防治對象為蚊子、蒼蠅、老鼠、蟑螂和鼠蚤(rat fleas)的環境用藥產品，在新加坡皆須登記註冊。

2.不需註冊對象

(1)殺鼠之方法—燻蒸，其燻蒸劑(Fumigants)由氰化氫(燻蒸)法(Hydrogen Cyanide (Fumigation) Act)所規範，其相關燻蒸劑規範如附件十所示。經詢問新加坡 NEA 與 NEA 官員 Sharon LO 聯繫後表示：新加坡使用之燻蒸劑為三種(溴化甲烷、磷化氫與氰化氫)，其中氰化氫之燻蒸法僅針對船隻進行，用以殺害老鼠，防止鼠疫發生。

(2)非化學性質的驅蚊劑(如光陷阱，超音設備)。

(3)除害劑/驅蟲輸入供轉口用途。

(4)除害劑只供農業和(或)園藝用途(詳情可在www.ava.gov.sg)。

(5)除害劑是針對五個目標生物(蚊子、蒼蠅、蟑螂、老鼠和鼠蚤)以外的害蟲。

(二)註冊申請

新加坡環境用藥殺蟲劑/驅蚊劑產品註冊費用為新幣 160 元(約台幣 3,731 元)，若產品未通過註冊程序時其註冊費用不退還，詳細之註冊申請流程如圖 2.2-12。

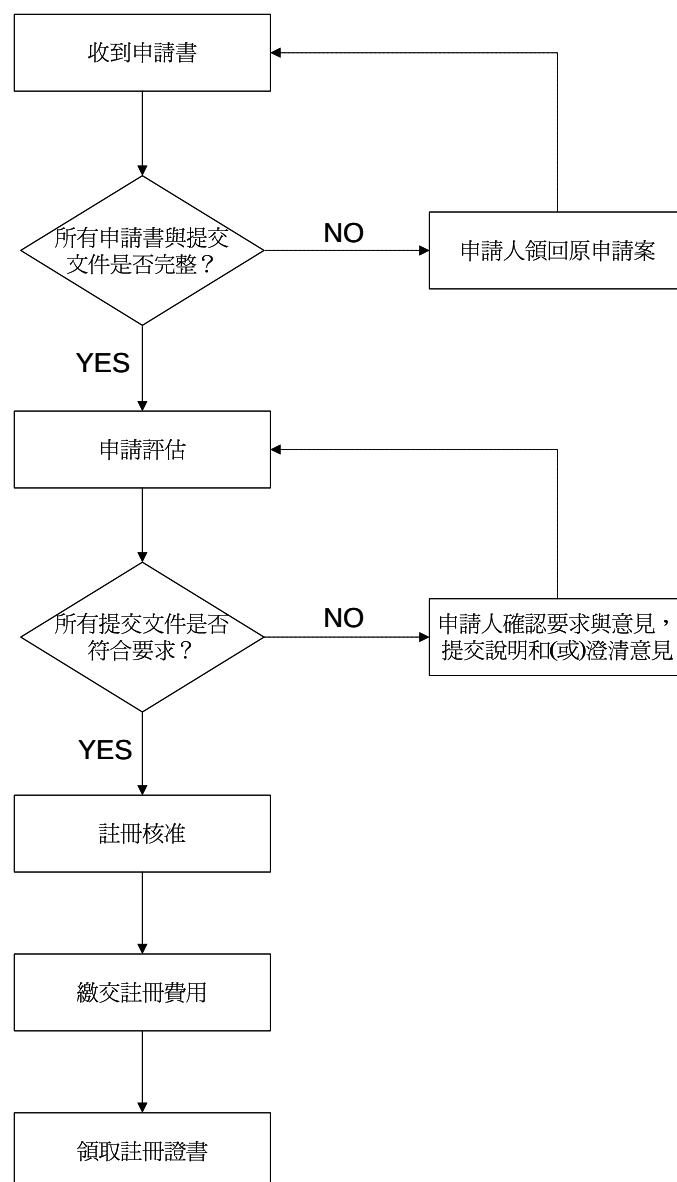


圖 2.2-12 殺蟲劑/驅蚊劑註冊申請流程

(三)殺蟲劑/驅蚊劑種類規範及使用限制

殺蟲劑成分中可能包含一種或多種合成的有效成分，使得此殺蟲劑可直接用於居家害蟲(即一般使用)；若殺蟲劑的成分具高毒性、高濃度或需特殊設備才能施作，則需持有執照的病媒防治業者(pest control operators)才能使用(即限制使用)。

新加坡殺蟲劑/驅蚊劑(目標生物：蚊子、蒼蠅、蟑螂、老鼠和鼠蚤)登記之有效成分共計 65 種，如表 2.2-9 所示(表格更新至 2010 年

6 月)。若殺蟲劑之有效成分包含有機磷(organophosphorous group)、有機氯(organochlorine group)和氨基甲酸酯(carbamate group)時，則必須向污染控制部門管理之危害物質申請使用取可，如表 2.2-9 所示共計 7 種有效成分屬危害物質。

此外，新加坡 NEA 登記註冊之殺蟲劑/驅蚊劑產品共計 603 種(資料來源更新至 2011 年 6 月 23 日)，產品相關資訊詳如附件十一所示，提供 NEA 註冊碼、公司名、產品名稱、有效成分、有效成分重量百分比(%)、劑型與註冊時間等資訊。

表 2.2-9 新加坡殺蟲劑/驅蚊劑有效成分登記表

項次	有效成分化學名稱	中文名稱	環境用藥產品使用限制	
			一般使用	限制使用
1	D-allethrin	異亞列寧	V	V
2	Azamethiphos	甲基吡啶磷	V	V
3	Bacillus thuringiensis var. israelensis	蘇雲金芽孢桿菌	V	V
4	Bendiocarb	免敵克		V
5	Bioallethrin	百列寧	V	V
6	S-bioallethrin	S-亞列寧	V	V
7	Bioresmethrin	百列滅寧	V	V
8	Borax	硼砂	V	V
9	Brodifacoum	可滅鼠		V
10	Bromadiolone	撲滅鼠		V
11	Carbaryl	加保利		V
12	Chlorpyrifos*	陶斯松	V	V
13	Coumatetralyl	4-羥基-3-(1,2,3,4-四氫-1-萘基)香豆素		V
14	Cyfluthrin	賽扶寧	V	V
15	Beta-cyfluthrin	β -賽扶寧	V	V
16	Lambda-cyhalothrin	賽洛寧	V	V
17	Cypermethrin	賽滅寧	V	V
18	Alpha-cypermethrin	亞滅寧	V	V
19	Cyphenothrin	賽酚寧	V	V
20	Cyromazine	賽滅淨		V
21	Deltamethrin	地滅寧	V	V
22	Dichlorvos	二氯松	V	V
23	Diethyl toluamide	敵避	V	V

項次	有效成分化學名稱	中文名稱	環境用藥產品使用限制	
			一般使用	限制使用
24	Difenacoum	雙滅鼠		V
25	Dimethoate	大滅松		V
26	Dimethyl phthalate	苯二甲酸二甲酯	V	V
27	Diphacinone	得伐鼠		V
28	Dipropyl isocinchomerate(MGK326)	丙蠅驅	V	V
29	EsbioI	右亞列寧	V	V
30	Esbiothrin	賜百寧	V	V
31	Esfenvalerate	益化利	V	V
32	Ethyl butylacetylaminopropionate(EBA)	驅蚊酯	V	V
33	Ethyl hexanediol	2-乙基-1,3-己二醇	V	V
34	Etofenprox	依芬寧	V	V
35	Fenitrothion	撲滅松	V	V
36	Fenthion	芬殺松		V
37	Fenvalerate*	芬化利		V
38	Fipronil*	芬普尼	V	V
39	Flufenoxuron	氟芬隆	V	V
40	Hexaflumuron	六伏隆		V
41	Hydramethylnon	愛美松	V	V
42	Hydroprene	烯蟲乙酯		V
43	Hydroxyethyl isobutyl piperidine carboxylate	羥乙基哌啶羧酸異丁酯	V	V
44	Imidacloprid*	吡蟲啉	V	V
45	Imiprothrin	依普寧	V	V
46	Malathion*	馬拉松		V
47	Methoprene	美賜平		V
48	Metofluthrin	美特寧	V	V
49	D-Phenothrin	酚丁滅蝨	V	V
50	Permethrin	百滅寧	V	V
51	Phoxim	巴賽松		V
52	Pirimiphos methyl*	甲機嘧啶磷		V
53	Picaridin	皮卡離叮	V	V
54	Prallethrin	普亞列寧	V	V
55	Propoxur	殘殺威	V	V
56	Pyrethrins	除蟲菊酯	V	V
57	Pyrethrum	除蟲菊	V	V
58	Pyriproxyfen	百利普芬		V

項次	有效成分化學名稱	中文名稱	環境用藥產品使用限制	
			一般使用	限制使用
59	Temephos*	亞培松	V	V
60	Tetramethrin	治滅寧	V	V
61	D-tetramethrin	異治滅寧	V	V
62	Thiamethoxam	賽速安	V	V
63	D-transallethrin	D-丙烯菊酯	V	V
64	Transfluthrin	拜富寧	V	V
65	Warfarin	殺鼠靈		V

註：*屬危害物質(資料來源整理自附件九)

(四)未依 CVPA 規定註冊環境用藥罰款

任何人販售、廣告或提供未經 NEA 註冊的殺蟲劑和驅蚊劑，初犯處新幣 20,000 元(約台幣 466,375 元)以下罰鍰與(或)3 個月以下有期徒刑；再犯者處新幣 50,000 元(約台幣 1,165,000 元)以下罰鍰與(或)6 個月以下有期徒刑。

四、標示說明(標準)規定

產品標示必須列印或貼在產品包裝內，產品敘述文字必須為英文且最好增列另一種新加坡的官方語言(華語、馬來語、泰米爾語)。以下 20 項產品資訊是被要求必須附在標示說明上的：

(一)產品/貿易商/品牌名稱

(二)產品內容物質成分(%w/w)—含名稱、有效成分百分比與惰性成分(inert ingredients)百分比

(三)劑型(例如 aerosol、bait、mat、coil)

(四)世界衛生組織(World Health Organization)的毒性分類(依據“The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification 2009”)

(五)警示圖案或警語

(六)使用限制類別(即“一般使用”或“限制使用”)

(七)產品淨重或體積

- (八)防治對象
- (九)產品製造日期
- (十)產品有效期間
- (十一)對非目標生物的毒性影響(例如：魚、鳥類)
- (十二)安全措施
- (十三)使用方法
- (十四)儲存及廢棄資訊
- (十五)誤觸時急救方式
- (十六)醫生急救資訊
- (十七)製造商與輸入商的名稱與地址
- (十八)美國環保署註冊號碼(產品若在美國有註冊者需登記)
- (十九)NEA 註冊標示(至少 10 磅且字體大小高度不低於 3 mm)
- (二十)其他資訊(若 Director-General Public Health 要求)

其中因每個產品的內容量與包裝來自不同的形狀與大小，在正常情況下，標示說明必須包含上述所提及的第 1 至 19 的訊息；如果產品包裝空間具限制時，下列 11 項資訊是被要求務必提供列印或貼在明顯的產品包裝上：

- (一)品牌名稱
- (二)NEA 註冊標示
- (三)成分組成
- (四)劑型
- (五)世界衛生組織的毒性分類
- (六)警示圖案或標語
- (七)使用限制類別

(八)產品淨重或體積

(九)防治對象

(十)產品製造日期

(十一)產品有效期間

世界衛生組織除害劑毒性分類(依據化學品分類及標記全球協調制度”Globally Harmonized System of Classification and Labeling of Chemicals(GHS), Third revised edition, 2009”),如表 2.2-10 所示：

表 2.2-10 世界衛生組織除害劑毒性分類

毒性分類	危險說明	警告圖示	鼠類急性 LD ₅₀ (mg/kg 體重)	
			口服	皮膚
1	致命		<5	<50
2	致命		5-50	50-200
3	中毒		50-300	200-1000
4	有害		300-2000	1000-2000
5	可能有害	---	2000-5000	2000-5000

資料來源：

1. 新加坡國家環境局 (National Environment Agency) :
<http://app2.nea.gov.sg/index.aspx>
2. 世界衛生組織－除害劑毒性分類 (World Health Organization) :
http://www.who.int/entity/ipcs/publications/pesticides_hazard_2009.pdf
3. 化學品分類及標示全球協調制度 (Globally Harmonized System of Classification and Labeling of Chemicals) :
http://live.unece.org/fileadmin/DAM/trans/danger/publi/ghs/ghs_rev03/English/03e_part3.pdf

2.2-6 香港環境用藥管理規定調查評析

中華人民共和國於 2001 年 5 月 23 日簽署國際環境公約—斯德哥爾摩公約，並於 2004 年 8 月 13 日交存公約批准書，此公約自 2004 年 11 月 11 日對中華人民共和國(包含香港特區行政區)施行。此外，另一國際環境公約—鹿特丹公約，自 2008 年 8 月 26 日施行於香港特區。目前香港爲了能夠履行斯德哥爾摩公約與鹿特丹公約所訂的責任，於 2011 年 7 月擬議除害劑條例之修訂，目前仍在研議中尚未定案。

一、管理背景

香港政府於 1991 年 2 月訂定發布除害劑條例(香港法例第 133 章)，並由食物及衛生局管轄下之漁農自然護理署負責執行，目的爲規範除害劑(包含斯德哥爾摩公約所涵蓋之除害劑)，達到監管香港所有除害劑的入口、生產、配製、分銷、售賣與供應等行爲，漁農自然護理署網站首頁如圖 2.2-13 所示。然而，針對除害劑與除害生物之教育與推廣則由食物環境衛生署所負責，網站資料架構如圖 2.2-14。



圖 2.2-13 香港漁農自然護理署網站首頁



圖 2.2-14 香港網站資料架構

二、法源依據及目標

香港針對除害劑類持久性有機污染物係以”除害劑條例”(香港法例第 133 章)與”輸入/出條例”(香港法例第 60 章)規範。除害劑條例主要規範四個項目：

- (一)除害劑註冊
- (二)除害劑牌照
- (三)除害劑許可證
- (四)除害劑之標示與裝瓶規定

以下將針對除害劑條例的四個主要規範項目進行詳細之介紹。爾外，對於所有的除害劑輸入輸出皆須領有香港法例第 60 章所規範的輸入/出證，除了含有溴代甲烷的除害劑之輸入/出證由工業貿易署直接簽發外，其餘除害劑輸入/出證均由漁農自然護理署代工業貿易署簽發。

三、除害劑條例之規範

(一)管制範圍

除害劑包含任何形狀與用途之化學、生物除害劑。例如：任何農業除害劑、植物生長調節劑、船底防護漆、防蟲劑、噴霧殺蟲劑、殺蟻/蠅/蟑螂粉、毒餌、蚊/香片、老鼠藥、殺蟲劑、衣櫃防蟲紙與水族箱用之除藻劑。至於一些含有除害劑成分之有害物控制裝置與藥劑，如用以治療人類疾病之殺蟲洗髮劑/乳劑，則不受此條例所管制。

(二)註冊申請之收費標準

除害劑之相關申請、註冊事項均需收費，香港法規之收費標準如表 2.2-11 所示。

表 2.2-11 除害劑之相關申請收費標準

項次	事項	收費(港幣)	(約台幣)
1	註冊申請除害劑	2,500	9,313
2	提交除害劑牌照申請	125	466
3	提交除害劑許可證申請	155	578
4	簽發在登記冊第 I 部註冊的除害劑牌照	395	1,472

項次	事項	收費(港幣)	(約台幣)
5	簽發在登記冊第 II 部或同時在第 I 及第 II 部註冊的除害劑牌照	800	2,980
6	應持牌人要求簽發修訂牌照	520	1,937
7	簽發作輸入或擁有以作轉口用途的未註冊除害劑許可證	700	2,608
8	簽發作任何其他用途的未註冊除害劑許可證	1,280	4,768
9	應持證人要求簽發修訂許可證	825	3,074
10	延續在登記冊第 I 部註冊的除害劑牌照	200	745
11	延續在登記冊第 II 部或同時在第 I 及第 II 部註冊的除害劑牌照	580	2,161
12	簽發牌照或許可證複本	160	596
13	延長輸入或擁有以用作轉口用途的未註冊除害劑許可證的有效期間	395	1,472
14	延長作任何其他用途的未註冊除害劑許可證的有效期間	910	3,390

註：第 I 部分為可供一般家庭直接使用之除害劑；第 II 部分為其他除害劑

(三)除害劑註冊

香港之除害劑必須於註冊後，方可在境內進行分銷及使用。除害劑之註冊由漁農自然護理署署長所掌管，記錄於除害劑註冊記錄本中，其中記錄除害劑之有效成分、濃度範圍及核准配方等資料。個別產品倘其有效成分已獲註冊，且濃度及配方符合註冊記錄冊詳述之規定，毋須再行註冊。除害劑註冊流程如圖 2.2-15 所示，而申請表詳見附件十二。

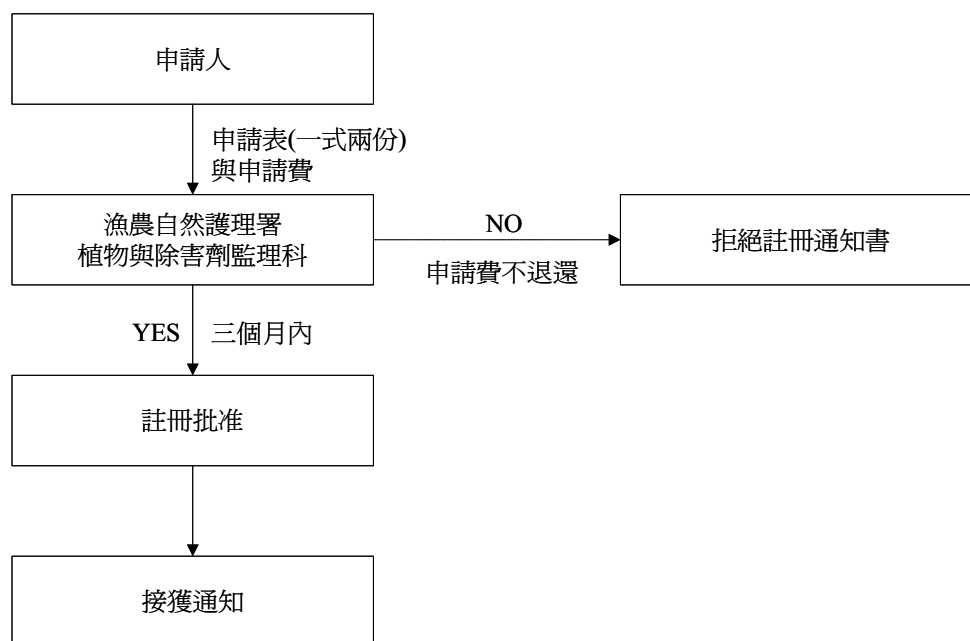


圖 2.2-15 除害劑註冊流程

香港的除害劑會按照其用法、劑型、毒性分為兩大部分，第 I

部分的除害劑為家用除害劑；第 II 部分則為其他除害劑(主要規範為農業用藥)。第 I 部分之註冊除害劑有效成分共計 195 種，如表 2.2-12 所示(更新至 2011 年 10 月 17 日)。

表 2.2-12 第 I 部分之註冊除害劑有效成分

項次	有效成分名稱	零售之劑型	含量
1	Abamectin	藥餌(即用)	0.05 w/w
2	Acephate	藥餌(即用)	1 w/w
3	Acephate / Diflubenzuron	藥餌(即用)	5/0.4 w/w
4	d-Allethrin	煙霧劑 氣體散發劑	22 w/w 6 w/w
5	d-Allethrin / Deltamethrin / Dichlorvos	氣霧劑	0.2/0.05/0.7 w/v
6	d-Allethrin / Empenthrin / Thymol	浸透紙	0.59/0.07/0.02 w/w
7	d-Allethrin / Permethrin / Piperonyl butoxide	氣霧劑	0.163/0.11/0.3 w/w
8	d-Allethrin / d-Phenothrin	氣霧劑	0.3/0.2 w/w
9	d-Allethrin / d-Phenothrin / Tetramethrin	氣霧劑	0.3/0.2/0.2w/v
10	d-Allethrin / d-Phenothrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.095/0.047/0.5/1 w/w
11	d-Allethrin / Piperonyl butoxide	煙霧劑 煙霧劑 煙霧劑 浸透紙 氣體散發劑	5/2 w/w 4/4 w/w 6/0.34 w/w 0.25/1.2 w/w 3.6/0.16 w/w
12	d-Allethrin / Prallethrin / Piperonyl butoxide	煙霧劑	3.2/0.9/0.6 w/w
13	d-Allethrin / Pyrethrins	煙霧劑	0.3/0.02 w/w
14	Allethrin	氣霧劑 煙霧劑	0.34 w/v 4 w/w
15	Allethrin / Dichlorvos / Tetramethrin	氣霧劑	0.04/0.07/0.5 w/v
16	Allethrin / Permethrin	氣霧劑	0.1/0.3 w/v
17	Allicin / Capsaicin	無需稀釋液劑	1/1 w/v
18	Amorphous silicon dioxide / Celastrus alkaloids / Disodium octaborate tetrahydrate	塵粉劑	43/0.05/43 w/w
19	Atrazine / Dichlone / Monuron / Simazine	片劑	0.2/0.1/0.8/0.6 w/w
20	Atrazine / Dichlone / Simazine	片劑	0.2/0.1/0.6 w/w
21	Azamethiphos / Muscalure	粒狀藥餌	1/0.02 w/w
22	Bioallethrin	氣霧劑 煙霧劑	0.2 w/v 4.2 w/w
23	Bioallethrin / Bioresmethrin	氣霧劑	0.225/0.042 w/w
24	Bioallethrin / Cypermethrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.15/0.1/0.25/0.5 w/w
25	Bioallethrin / Cyphenothrin / Permethrin	氣霧劑	0.33/0.13/0.25 w/w
26	Bioallethrin / Deltamethrin / Permethrin / Piperonyl butoxide	氣霧劑	0.22/0.66/0.11/1 w/w

項次	有效成分名稱	零售之劑型	含量
27	Bioallethrin / Permethrin	氣霧劑	0.1/0.5 w/w
28	Bioallethrin / Permethrin / Piperonyl butoxide	氣霧劑	0.2/0.068/0.5 w/w
29	Bioallethrin / Permethrin / Tetramethrin	氣霧劑	0.08/0.2/0.1 w/w
30	Bioallethrin / Piperonyl butoxide	氣霧劑 氣霧劑 氣體散發劑	2/3 w/v 2.057/16.83 w/w 3.6/0.16 w/w
31	Bioallethrin-S	氣霧劑	0.3 w/v
32	Bioallethrin-S / Deltamethrin	氣霧劑	0.2/0.01 w/w
33	Bioallethrin-S / Permethrin / Tetramethrin	氣霧劑	0.105/0.263/0.544 w/w
34	Bioallethrin-S / Piperonyl butoxide	氣霧劑	0.54/4.32 w/w
35	Borax	漿劑	5 w/v
36	Borax / Tetramethrin	塵粉劑 粉劑	5/12 w/w 5/12 w/w
37	Boric acid	氣霧劑 無需稀釋液劑 粉劑 藥餌(即用) 片劑	20 w/w 0.2 w/v 0.2 w/w 99 w/w 70 w/w
38	Boric acid / Fenitrothion	藥餌(即用)	13.5/0.9 w/w
39	Brodifacoum	濃懸浮劑	0.005 w/w
40	Bromadiolone	氣霧劑	0.005 w/w
41	Butoxycarboxim	植物桿型劑	9.8 w/w
42	Camphor	氣體散發劑	---
43	Carbaryl	塵粉劑	0.3 w/w
44	Celastrus alkaloids	無需稀釋液劑 凝膠狀藥餌	0.02 w/w 0.1 w/w
45	Cellulose	丸狀藥餌	45 w/w
46	Chlorophacinone	氣霧劑	0.005 w/w
47	Chloroxenol	氣體散發劑	2.9 w/w
48	Chloroxenol / Empenthrin	浸透紙 氣體散發劑	0.025/47.475 w/w 0.1/0.3 w/w
49	Chlorpyrifos	無需稀釋液劑 藥餌(即用)	1 w/v 0.6 w/w
50	Chlorpyrifos / lambda-Cyhalothrin / Esbiothrin	無需稀釋液劑	0.125/0.01/0.0025 w/w
51	Chlorpyrifos / Deltamethrin	無需稀釋液劑	0.5/0.023 w/w
52	Chlorpyrifos / Dichlorvos	氣霧劑	1/1 w/v
53	Chlorpyrifos / Empenthrin	浸透紙	2.7/0.9 w/w
54	Cholecalciferol	穀粒藥餌	0.08 w/w
55	Citronella oil	團塊 氣體散發劑	18 w/w 65 w/w
56	Citronella oil / Eucalyptus oil	氣體散發劑	12.5/37.5 w/w
57	Coumatetralyl	穀粒藥餌	0.8 w/w

項次	有效成分名稱	零售之劑型	含量
		塵粉劑 藥餌(即用)	0.75 w/w 0.0375 w/w
58	Coumatetralyl / Endosulfan	穀粒藥餌	0.05/0.8 w/w
59	Coumatetralyl / White oils	穀粒藥餌	0.05/0.05 w/w
60	Cyfluthrin	氣霧劑	0.04 w/w
61	Cyfluthrin / Dichlorvos / Fenfluthrin / Propoxur	氣霧劑	0.03/0.5/0.04/1 w/w
62	Cyfluthrin / Dichlorvos / Propoxur	氣霧劑	0.04/0.5/1 w/w
63	Cyfluthrin / 2-Phenylphenol / Propoxur	氣霧劑	0.025/0.1/0.75 w/w
64	Cyfluthrin / 2-Phenylphenol / Propoxur / Transfluthrin	氣霧劑	0.025/0.1/1/0.04 w/w
65	Cyfluthrin / Propoxur	氣霧劑	0.025/0.75 w/w
66	Cyfluthrin / Propoxur / Tetramethrin / Piperonyl butoxide	氣霧劑	0.04/1/0.2/1 w/w
67	Cyfluthrin / Propoxur / Transfluthrin	氣霧劑	0.025/1/0.04 w/w
68	Cyfluthrin / Pyrethrins	氣霧劑	0.04/0.3 w/w
69	Cyfluthrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.04/0.2/1 w/w
70	Cyfluthrin / Transfluthrin	氣霧劑	0.025/1/0.04 w/w
71	lambda-Cyhalothrin / Prallethrin	無需稀釋液劑	0.1/0.1 w/w
72	alpha - Cypermethrin	氣霧劑	0.02 w/v
73	beta-Cypermethrin / Propoxur / Tetramethrin / Piperonyl butoxide	氣霧劑	0.08/0.32/0.15/0.45 w/w
74	beta-Cypermethrin / Tetramethrin	氣霧劑	0.11/0.23 w/w
75	Cypermethrin	無需稀釋液劑 粒狀藥餌 浸透紙	1.3 w/v 0.1 w/w 0.33 w/w
76	Cypermethrin / Dichlorvos	氣霧劑	0.2/0.8 w/v
77	Cypermethrin / Imiprothrin	氣霧劑	0.286/0.14 w/w
78	Cypermethrin / Imiprothrin / 2-Phenylphenol	氣霧劑	0.1/0.1/0.15 w/w
79	Cypermethrin / Permethrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.05/0.3/0.2/1 w/w
80	Cypermethrin / 2-Phenylphenol / Tetramethrin	氣霧劑	0.201/0.15/0.371 w/w
81	Cypermethrin / Prallethrin	煙霧劑	8/4 w/w
82	Cypermethrin / Propiconazole	水溶性液劑	0.1/0.45 w/w
83	Cypermethrin / Pyrethrins	氣霧劑 氣霧劑	0.11/0.6 w/w 0.15/0.2 w/w
84	Cypermethrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.3/0.2/1 w/v
85	Cypermethrin / Transfluthrin	無需稀釋液劑	0.1/0.1 w/w
86	d,d-T-Cyphenothrin / Tetramethrin	氣霧劑	0.17/0.12 w/w
87	Cyphenothrin	煙霧劑	8 w/w
88	Cyphenothrin / Imiprothrin	氣霧劑	0.33/0.2 w/w
89	Cyphenothrin / d-Tetramethrin	氣霧劑	0.3/0.3 w/w
90	Deltamethrin	氣霧劑	0.06 w/w

項次	有效成分名稱	零售之劑型	含量
		無須稀釋液劑 粉筆	0.015 w/w 4 w/w
91	Deltamethrin / Esbiothrin	氣霧劑	0.02/0.1 w/w
92	Deltamethrin / Esbiothrin / Propoxur	氣霧劑	0.02/0.15/1 w/w
93	Deltamethrin / Kadethrin	氣霧劑	0.02/0.06 w/v
94	Deltamethrin / Octachlorodipropyl ether / Permethrin	塵粉劑 粒劑	0.1/0.2/0.1 w/w 0.1/0.2/0.1 w/w
95	Deltamethrin / Permethrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.05/0.1/0.25/1 w/w
96	Deltamethrin / Tetramethrin	氣霧劑	0.015/0.23 w/w
97	Diazinon	氣霧劑	0.5 w/v #6
98	Diazinon / Triforine	氣霧劑	0.2/0.2/ w/v #6
99	1,4-Dichlorobenzene	氣體散發劑	---
100	1,4-Dichlorobenzene / 2-Phenylphenol	氣體散發劑	72.5/0.2 w/w
101	1,4-Dichlorobenzene / Thymol	氣體散發劑	99.9/0.05 w/w
102	Dichlorvos	氣霧劑	1 w/w
103	Dichlorvos / Fenitrothion / Permethrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.5/0.8/0.04/0.08/0.4 w/v
104	Dichlorvos / Fenitrothion / Tetramethrin	氣霧劑	1/1/0.2 w/v
105	Dichlorvos / Permethrin	氣霧劑	0.8/0.2 w/v
106	Dichlorvos / Permethrin / Propoxur	氣霧劑	0.5/0.1/1 w/v
107	Dichlorvos / Permethrin / Tetramethrin / Piperonyl butoxide	氣霧劑	1/0.25/0.02/0.01 w/w
108	Dichlorvos / Propoxur	氣霧劑	1/2 w/v
109	Dichlorvos / Tetramethrin / Piperonyl butoxide	氣霧劑	1/0.08/0.4 w/v
110	Diethyltoluamide / Esbiothrin	煙霧劑	2.41/2.52 w/w
111	Difethialone	丸狀藥餌	0.0025 w/w
112	Diiodomethyl-4-tolyl sulfone	氣霧劑	0.015 w/w
113	Diiodomethyl 4-tolyl sulfone / Isobornyl thiocanoacetate / Permethrin / beta -Thujaplicin	浸透紙	0.86/0.62/0.10/0.03 w/w
114	Dimefluthrin	氣體散發劑	0.03 w/w 0.31 w/w
115	Dimethoate	氣霧劑	0.4 w/v
116	Diphacinone	穀粒藥餌	0.1 w/w
117	Disulfoton	植物桿型劑	1 w/w
118	Emamectin benzoate	凝膠狀藥餌	0.1 w/w
119	Empenthrin	浸透紙	20.7 w/w
120	Empenthrin / Freside S	氣體散發劑	30.97/1.55 w/w
121	Empenthrin / Freside S / d-Phenothrin	氣體散發劑	0.11/0.14/0.19 w/w
122	Empenthrin / Octachlorodipropyl ether / 2-Phenylphenol / d-Tetramethrin	浸透紙	0.18/0.9/0.09/0.18 w/w
123	Empenthrin / 2-Phenylphenol	氣體散發劑	50/8 w/w

項次	有效成分名稱	零售之劑型	含量
124	Esbiothrin	煙霧劑 氣體散發劑	5 w/w 3 w/w
125	Etofenprox	氣霧劑 無需稀釋液劑	1.25 w/w 1.25 w/w
126	Fenitrothion	藥餌(即用)	5 w/w
127	Fenitrothion / Permethrin	氣霧劑	1.3/1.4 w/v
128	Fenitrothion / Permethrin / Tetramethrin	氣霧劑	0.8/0.3/0.3 w/v
129	Fenitrothion / Permethrin / Tetramethrin / Piperonyl butoxide	氣霧劑	1/0.047/0.091/0.462 w/w
130	Fenoxycarb / Permethrin / Pyrethrins / MGK 264 / Piperonyl butoxide	氣霧劑 無需稀釋液劑	1/0.5/0.05/0.4/0.1 w/w 0.06/0.2/0.05/0.4/0.1 w/w
131	Fenvalerate / Pyrethrins / MGK 264 / Piperonyl butoxide	氣霧劑	0.4/0.05/0.166/0.1 w/w
132	Fipronil	藥餌(即用)	0.05 w/w
133	Flocoumafen	穀粒藥餌 塊狀藥餌 片劑	0.005 w/w 0.005 w/w 0.005 w/w
134	Freside S	氣體散發劑	0.1 w/w
135	d-trans-Furamethrin	煙霧劑 氣體散發劑	10 w/w 1.68 w/w
136	Geraniol	氣體散發劑	30 w/w
137	Hydramethylnon	粒狀藥餌 藥餌(即用)	0.9 w/w 2.0 w/w
138	S-Hydroprene	氣體散發劑	90.6 w/w
139	Imidacloprid	凝膠狀藥餌	2.15 w/w
140	Indoxacarb	藥餌(即用)	1 w/w
141	Isobornyl thiocynoacetate / Permethrin	浸透紙	1.08/0.16 w/w
142	d-Limonene	液劑	5.8 w/w
143	Linalool	氣體散發劑	96 w/w
144	Malathion / Pyrethrins / Rotenone	氣霧劑	0.3/0.02/0.1 w/v
145	Menthol	氣體散發劑	4.3 w/w
146	S-Methoprene / Permethrin	氣霧劑	0.1/0.64 w/w
147	S-Methoprene / Pyrethrins / MGK 264 / Piperonyl butoxide	氣霧劑	0.1/0.5/1.7/1.0 w/w
148	S-Methoprene / Pyrethrins / Tetramethrin / MGK 264 / Piperonyl butoxide	氣霧劑	0.1/0.2/0.1/1.0/1.0 w/w
149	Methoprene / Permethrin	氣霧劑	0.15/0.5 w/w
150	Methothrin / Permethrin	粉筆	0.1/0.1 w/w
151	Methoxychlor	氣霧劑	3 w/v
152	Methyl neodecanamide	無需稀釋液劑	2 w/w
153	Methyl nonyl ketone	氣體散發劑	21 w/w
154	Metofluthrin	氣體散發劑 墊片	15 mg/mat #7

項次	有效成分名稱	零售之劑型	含量
155	Metoxadiazone / d-Phenothrin	煙霧劑	8/14 w/w
156	Naphthalene	氣體散發劑	---
157	Octenol	氣體散發劑	67.2 w/w #5
158	Permethrin	無需稀釋液劑 塵粉劑 煙霧劑	0.3 w/v 0.5 w/w 12.5 w/w
159	Permethrin / 2-Phenylphenol / Pyrethrins / Piperonyl butoxide	氣霧劑	0.2/0.15/0.2/0.5 w/w
160	Permethrin / Propoxur / Tetramethrin	氣霧劑	0.207/0.96/0.207 w/w
161	Permethrin / Pyrethrins	氣霧劑	0.04/0.1 w/v
162	Permethrin / Pyrethrins / Piperonyl butoxide	氣霧劑	0.2/0.2/0.5 w/w
163	Permethrin / d-Tetramethrin	氣霧劑	0.84/0.84 w/v
164	Permethrin / Tetramethrin	氣霧劑	1/0.3 w/v
165	Permethrin / Tetramethrin / Octachlorodipropyl ether	氣霧劑	0.35/0.2/0.6 w/w
166	Petroleum oils	藥餌(即用)	62 w/w
167	d-Phenothrin	粉劑	0.4 w/w
168	d-Phenothrin / Phenyl salicylate	氣霧劑	0.4/6.7 w/w
169	d-Phenothrin / Prallethrin	氣霧劑 氣霧劑	0.05/0.13 w/w 0.08/0.07 w/w
170	d-Phenothrin / Prallethrin / d-Tetramethrin	氣霧劑	0.2/0.1/0.2 w/w
171	d-Phenothrin / Tetramethrin	氣霧劑	0.075/0.3 w/w
172	d-Phenothrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.04/0.2/1 w/v
173	2-Phenylphenol	粒劑	0.2 w/w
174	Phoxim	塵粉劑 藥餌(即用)	3 w/w 0.0875 w/w
175	Pirimiphos-methyl / Resmethrin / Tetramethrin / Piperonyl butoxide	氣霧劑	0.5/0.2/0.1/0.6 w/v
176	Prallethrin	煙霧劑 氣體散發劑 氣體散發劑	1.67 w/w 1.33 w/v 2 w/w
177	Prallethrin / Piperonyl butoxide	煙霧劑	1.41/2.94 w/w
178	Propoxur	無需稀釋液劑 粒狀藥餌 浸透紙 藥餌(即用) 氣體散發劑	5 w/v 1 w/w 1 w/w 1.5 w/w 1 w/v
179	Propoxur / Pyrethrins	煙霧劑	2/0.3 w/w
180	Propoxur / Pyrethrins / Piperonyl butoxide	氣霧劑	1/0.4/1.1 w/v
181	Propoxur / Pyrethrins / Tetramethrin / Piperonyl butoxide	氣霧劑	1.1/0.5/0.16/1 w/w
182	Propoxur / Tetramethrin	氣霧劑	1/0.3 w/w
183	Pyrazophos	氣霧劑	0.1 w/v
184	Pyrethrins	氣霧劑	0.4 w/v

項次	有效成分名稱	零售之劑型	含量
185	Pyrethrins / MGK 264 / Piperonyl butoxide	氣霧劑 氣霧劑 無需稀釋液劑	0.1/0.2/0.8 w/v 0.975/3.21/1.95 w/w 3/10/6 w/w
186	Pyrethrins / Piperonyl butoxide	氣霧劑 氣霧劑 無需稀釋液劑	0.3/0.13 w/v 1/5 w/w 0.02/0.2 w/v
187	Pyrethrins / Resmethrin / Tetramethrin	氣霧劑	0.02/0.3/0.3 w/v
188	Pyrethrins / Tetramethrin / MGK 264 / Piperonyl butoxide	氣霧劑	0.2/0.07/1/1 w/v
189	Pyrethrins / Tetramethrin / Piperonyl butoxide	氣霧劑	0.2/0.09/1.1 w/v
190	d-Resmethrin / d-Tetramethrin	氣霧劑	0.3/0.62 w/v
191	Resmethrin / Tetramethrin	氣霧劑	0.3/0.3 w/v
192	Simazine	濃縮可溶劑 片劑	3.5 w/v 3.5 w/w
193	Thiamethoxam	凝膠狀藥餌	0.1 w/w
194	Transfluthrin	煙霧劑 氣體散發劑	8.3 w/w 95 w/w
195	Warfarin	穀粒藥餌	0.1 w/w

註：w/w 為重量/重量百分比。

w/v 為重量/體積百分比。

#5 表預置在藥芯匣內。

#6 表准許的最高雜質含量：每千克所含 O,S-TEPP 的毫克量相等於 2.2×產品中 Diazinon 的含量百分比；每千克所含 S,S-TEPP 的毫克量相等於 28×產品中 Diazinon 的含量百分比；及水相等於 0.2 個百分比。

#7 表產品標示上需列明“不可於室內或密閉空間使用”。

(四)管制非主成分

非主成分指除害劑中不屬有效成分的任何成分。除害劑條例授權漁農自然護理署署長，可禁止或管制使用若干具毒性的非主成分。當政府正式指明某非主成分具毒性後會在憲報上刊登。倘若任何人士未獲得漁農自然護理署署長許可，均不得生產、輸入、供應或零售任何含有受禁(管)制非主成分的除害劑。

(五)除害劑牌照

凡擬經營已註冊除害劑的任何人士，均需依據除害劑條例領取除害劑牌照。所簽發的牌照分為三大類：

- 1.輸入/供應/製造/分裝/存放/零售第 I 部份除害劑的牌照。
- 2.輸入/供應/製造/分裝/存放/零售第 II 部份除害劑的牌照。

3.輸入/供應/製造/分裝/存放/零售已註冊除害劑(即第Ⅰ部分及第Ⅱ部分的除害劑)。

輸入或供零售用的除害劑必須符合它們在註冊記錄冊內列明之規定，如最高可銷售濃度、劑型等。

除害劑牌照之註冊流程如圖 2.2-16 所示，申請單詳見附件十二。

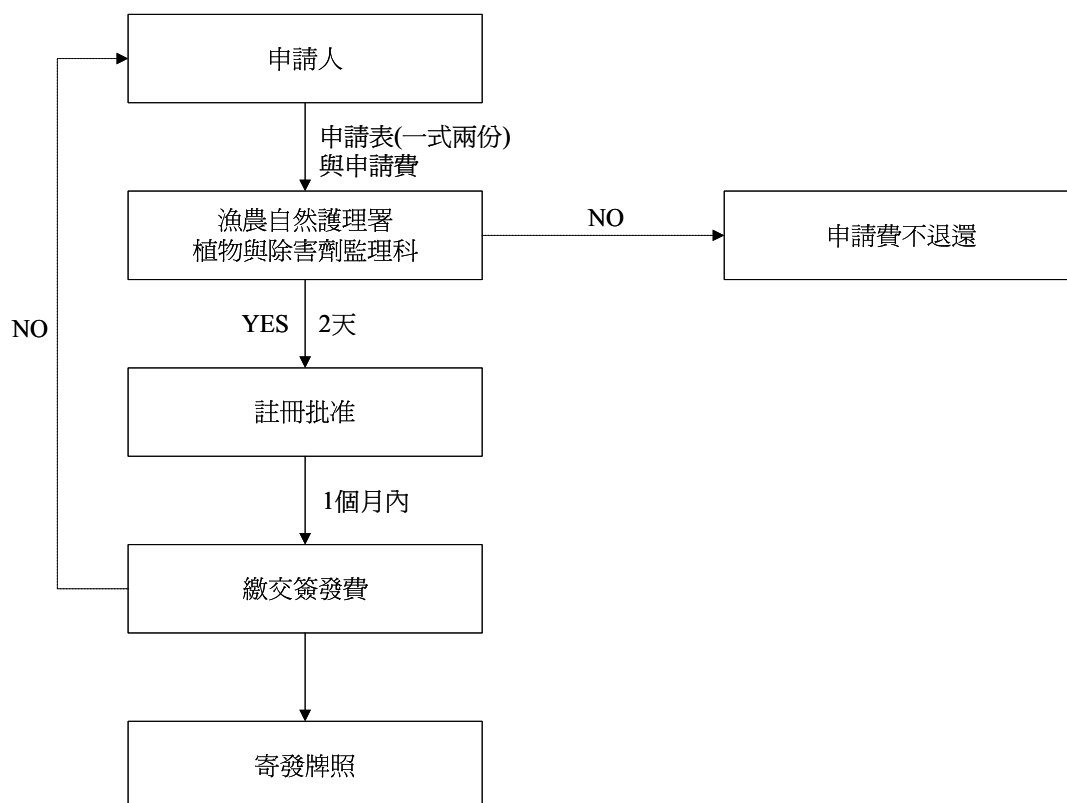


圖 2.2-16 除害劑牌照申請流程

所有牌照之有效期間均為十二個月，持牌人可在牌照屆滿前一個月內向漁農自然護理署申請展延與繳付費用，然而，在屆滿期後遞交之展延申請蓋不受理，且須重新申請並繳其費用。除害劑之牌照展延申請書請見附件十二。

(六)除害劑許可證

除害劑許可證乃適用於輸入、製造、販賣或擁有未註冊之除害劑，因未註冊之除害劑的潛在危險性較一般已註冊的除害劑高，故有必要對其進行更嚴密之監管，以達維護公眾安全之目的。

除害劑許可證之申請流程如圖 2.2-17 所示，申請表詳見附錄十三。

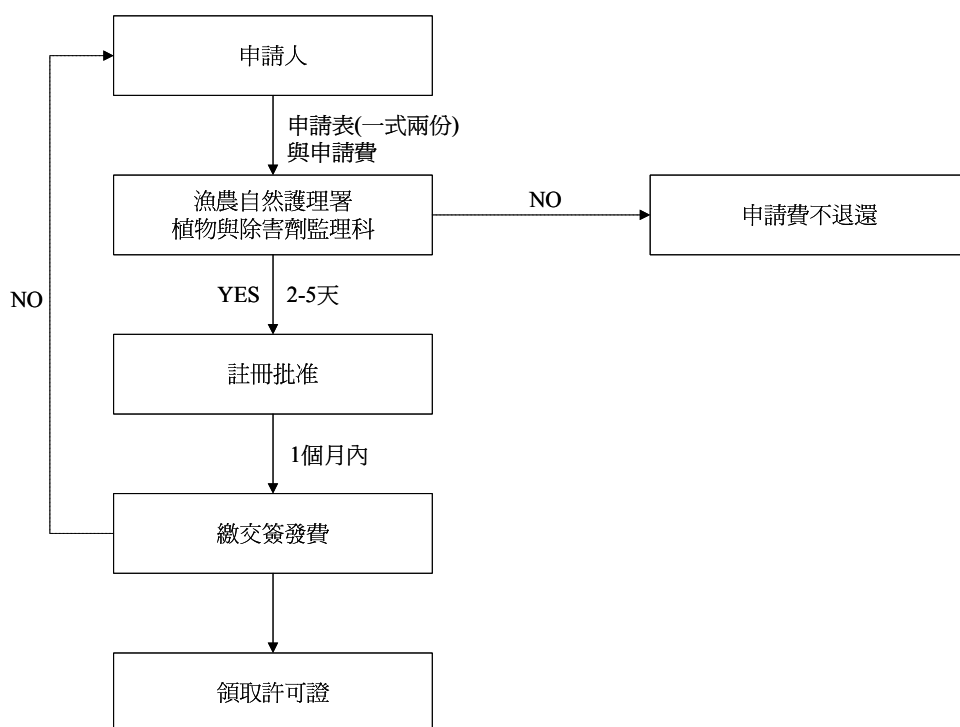


圖 2.2-17 除害劑許可證之申請流程

所有許可證之有效期間均為六個月，持證人可在許可證屆滿前一個月向漁農自然護理署申請許可證展延與繳付費用，並需呈交該除害劑之完整交易紀錄以供審查，與安排漁農自然護理署考察操作及應用該除害劑之示範。若屆滿期後才遞交展延申請則不受理，且須重新申請與繳費。許可證之展延申請表單請見附錄十三。

(七)除害劑之標示與裝瓶

除害劑條例中已明訂標示與裝瓶的規定，此等規定均為保障除害劑使用者、市民及環境而訂立，香港使用之除害劑必須有明確之中英文標示，標示上所列項目如下，而其中各項之說明與範例如附錄十四。

1. 警告字眼及字句：

(1)“毒藥”及“POISON”字眼。

- (2)“遠離孩童”及“KEEP OUT OF REACH OF CHILDREN”字句。
- (3)如果該除害劑具內吸作用，須註明“SYSTEMIC”字眼。
- (4)如果該除害劑獲漁農自然護理署署長的書面豁免在標示上加上“毒藥”及英文“POISON”的字眼，則必須以“小心”及英文“CAUTION”字眼取代。

2.內含成分：

- (1)商用名稱，相關之產品類別(例如：除草劑、殺蟲劑、殺菌劑、殺鼠劑)及其使用模式(例如：農業、工業、衛生滅蟲用途等)。
- (2)劑型種類—名稱及代號。
- (3)化學名稱及通用名稱。
- (4)除害劑的註冊編號。
- (5)內含物的淨重量或淨體積。
- (6)所有活性成份的組成百分比。

3.使用方法：

- (1)如何混合、調配及應用藥劑。
- (2)何時施用藥劑，包括時間及次數(包括每季最多的施用次數)，或何時不可施用(例如：作物開花期間)。
- (3)在何處施用本藥劑—哪一種作物，防治對象、範圍。
- (4)列明任何限制(例如易受影響的作物或品種，天氣情況，收割期)。就用於糧食作物的除害劑而言，必須列出最後一次施用該除害劑與糧食作物收成之間的最少相隔時間。
- (5)必需的施用設備。
- (6)與其他產品的相容性(如適用)。
- (7)對植物藥害的相關警告告示。
- (8)如何避免對益蟲(例如蜜蜂、害蟲天敵及野生生物等)的傷害。

- 4.安全防範措施。
- 5.解毒劑和急救指示。
- 6.環境的危害。
- 7.物理性及化學性危害。
- 8.存放及棄置。
- 9.其他資料：
 - (1)商號名稱及地址。
 - (2)有效期間。

四、輸入/出條例之規範

所有除害劑進出香港皆需遵循輸入/出條例規範，領有輸入/出證才得以流通，輸入/出證之申請單如附件十二。

(一)除害劑牌照

- 1.凡持有「輸入及供應」牌照者，可輸入及(或)輸出已註冊的除害劑，但同時必須遵守輸入/出條例的規定，即在香港輸入、輸出或轉口的每批除害劑，均需附有由工業貿易署署長授權漁農自然護理署所簽發的輸入及(或)輸出證。
- 2.如果輸入之除害劑憑全程提單由香港轉運到其他國家或地區，則毋須領取除害劑牌照，但仍須獲得上述之輸入/出證。該等除害劑輸入香港後必須存放在公倉內直至離港為止，自 2000 年 5 月起，憑全程航空運貨單在香港轉運的除害劑以免除按輸入/出條例領取輸入/出證之規定。
- 3.如果輸入之除害劑只屬過境性質，即在沒有轉運的情況下，由同一船舶、飛機或車輛運載途經香港，則毋須領取除害劑牌照及輸入/出許可證。

(二)除害劑許可證

- 1.凡持有「輸入及供應」許可證者，可輸入及(或)輸出某一指定的除

害劑，但同時必須遵守輸入/出條例的規定，即在香港輸入、輸出或轉口的每批除害劑，均需附有由工業貿易署署長授權漁農自然護理署所簽發的輸入及(或)輸出證。

- 2.如果輸入之除害劑憑全程提單由香港轉運到其他國家或地區，則毋須領取除害劑牌照，但仍須獲得上述之輸入/出證。該等除害劑輸入香港後必須存放在公倉內直至離港為止，自 2000 年 5 月起，憑全程航空運貨單在香港轉運的除害劑以根據航空貨物轉運(促進)條例免除按輸入/出條例領取輸入/出證之規定。
- 3.如果輸入之除害劑只屬過境性質，即在沒有轉運的情況下，由同一船舶、飛機或車輛運載途經香港，則毋須領取除害劑牌照及輸入/出證。

五、非法經營未註冊除害劑之罰則

(一)除害劑牌照

- 1.沒有牌照輸入/製造/售賣/供應已註冊除害劑，處港幣 50,000 元(約台幣 186,250 元)以下罰鍰與 1 年以下有期徒刑。
- 2.違反憲報內之有關規定：
 - (1)使用任何違禁或受管制之非主成分來製造除害劑。
 - (2)輸入/售賣/供應含有任何違禁或受管制之非主成分的除害劑，處港幣 2,000 元(約台幣 7,450 元)以下罰鍰與 6 個月以下有期徒刑。
- 3.違反有關牌照之任何規定，處港幣 25,000 元(約台幣 93,125 元)以下罰鍰與 6 個月以下有期徒刑。
- 4.妨礙檢查人員、拒絕給予樣本、無法出示牌照等，處港幣 10,000 元(約台幣 37,250 元)以下罰金與 6 個月以下有期徒刑。

(二)除害劑許可證

- 1.沒有許可證而輸入/製造/售賣/供應/擁有未註冊除害劑者，處港幣 50,000 元(約台幣 186,250 元)以下罰鍰與 1 年以下有期徒刑。

- 2.違反許可證上之規定，處港幣 25,000 元(約台幣 93,125 元)以下罰鍰及 6 個月以下有期徒刑。
- 3.在製造除害劑之過程中，無證使用任何被禁用或受管制之非主成分，或入口、供應及售賣含有被禁用或受管制之非主成分的除害劑，處港幣 2,000 元(約台幣 7,450 元)以下罰鍰及 6 個月以下有期徒刑。

資料來源：

- 1.香港漁農自然護理署：<http://www.afcd.gov.hk/cindex.html>
- 2.香港環境保護署—國際公約：http://www.epd.gov.hk/epd/tc_chi/international_conventions/pops/pops_main.html

2.3 更新歐盟、美國、日本及大陸地區環境用藥管理最新法令規定

2.3-1 歐盟環境用藥管理之最新法令規定

歐盟針對除害劑有效成分之最新規範為 2009 年 10 月 21 日訂定發布之歐盟條例 No 1107/2009，而 1991 年 7 月 15 日訂定發布之 91/414/ECE 指令已於新條例實施日起停止適用。更新之註冊有效成分如下所列，殺鼠劑共計 39 種有效成分，殺菌劑共計 27 種有效成分(更新至 2011 年 10 月 13 日)：

一、殺鼠劑

項次	歐盟註冊殺鼠劑有效成分	中文名稱	使用狀態(Status)
1	Aluminium phosphide	磷化鋁	Approved
2	Anthracene oil	蒽油	Not Approved
3	Brodifacoum*	可滅鼠	Not Approved
4	Bromadiolone*	撲滅鼠	Approved**
5	Bromethalin	---	Not Approved
6	Calciferol	維生素 D	Not Approved
7	Calcium phosphate	磷酸氫鈣	Approved**
8	Calcium phosphite	亞磷酸氫鈣	Approved
9	Carbon dioxide	二氧化碳	Approved
10	Carbon monoxide	一氧化碳	Not Approved
11	Chloralose	氯醛糖	Not Approved
12	Chlorophacinone	可伐鼠	Not Approved
13	Chloecalciferol	維生素 D3	Not Approved
14	Choline chloride	氯化膽鹼	Not Approved
15	Coumachlor	氯殺鼠靈	Not Approved
16	Coumafuryl	克鼠靈	Not Approved
17	Coumatetrayl*	剋滅鼠	Not Approved
18	Crimidine	鼠立死	Not Approved
19	Cyanides:calcium,hydrogen,sodium	氰化物	Not Approved
20	Difenacoum*	雙滅鼠	Approved
21	Difethialone*	立滅鼠	Not Approved
22	Diphacinone*	得伐鼠	Not Approved
23	Ethanethiol	乙硫醇	Not Approved
24	Flocoumafen*	伏滅鼠	Not Approved
25	Fluoracetarnide	氟乙醯胺	Not Approved
26	Isoval	殺鼠酮	Not Approved
27	Lindane	靈丹	Not Approved
28	Magnesium phosphide	磷化鎂	Approved
29	p-Dichlorobenzene	對-二氯苯	Not Approved
30	Papaine	木瓜酵素	Not Approved
31	Pyrancooumarin	環香豆素	Not Approved
32	Scilliroside	海蔥素	Not Approved
33	Sodium dimethylarsinate	二甲胂酸鈉	Not Approved

項次	歐盟註冊殺鼠劑有效成分	中文名稱	使用狀態(Status)
34	Strychnine	番木鱉鹼	Not Approved
35	Thallium phosphate	硒化鉍	Not Approved
36	Thiourea	硫脲	Not Approved
37	Tricalcium phosphate	磷酸鈣	Not Approved
38	Warfarin*(aka coumatetralyl)	殺鼠靈	Approved**
39	Zinc phosphide	磷化鋅	Approved

註：使用狀態為 Approved 表示此有效成分列於法規所允許使用的成分

使用狀態為 Not Approved 表示此有效成分未列於法規所允許使用的成分

*表我國註冊之殺鼠劑有效成分

**表於新法規 No 1107/2009 中更新之狀態

---表尚無中譯名稱

二、殺菌劑

歐盟新增之殺菌劑為 Aluminium sulphate 與 *Streptomyces lydicus* WYEC 108，其中 Aluminium sulphate 用於淨化飲用水、處理廢水與消滅破壞園藝之螺(西班牙蛞蝓)；而 *Streptomyces lydicus* WYEC 108 為農業用殺菌劑，目標害蟲為鐮刀菌、絲核菌、腐黴、絲囊、菌核病等。針對環境用藥之殺菌劑尚無增列之有效成分。

項次	歐盟註冊殺菌劑有效成分	使用狀態 (Status)	項次	歐盟註冊殺菌劑有效成分	使用狀態 (Status)
1	4-t-Pentylphenol	Not Approved	15	Kasugamycin	Not Approved
2	Alkyltrimethyl ammonium chloride	Not Approved	16	Lauryldimethylbenzylammonium bromide	Not Approved
3	Aluminium sulphate	Approved	17	Octyldecyldimethyl ammonium chloride	Not Approved
4	Aureobasidium pullulans	Pending	18	Oxytetracycline	Not Approved
5	Bacillus subtilis str. QST 713	Approved	19	Potassium permanaganate	Not Approved
6	Benzoic acid	Approved	20	Propionic acid	Not Approved
7	Bronopol	Not Approved	21	Sodium dichlorophenate	Not Approved
8	Chlorhydrate of poly(iminino imido biguandine)	Not Approved	22	Sodium hypochlorite	Approved
9	Chlorophylline	Not Approved	23	Sodium lauryl sulfate	Not Approved
10	Dioctyldimethyl ammonium chloride	Not Approved	24	Sodium p-t-amyphenate	Not Approved
11	Ethylhezanoate	Not Approved	25	Sodium p-toluene-sulfonchloramid	Not Approved
12	Flumequine	Not Approved	26	<i>Streptomyces lydicus</i> WYEC 108	Pending
13	Gentian violet	Not Approved	27	Streptomycin	Not Approved
14	Glutaraldehyde(aka	Not Approved			

項次	歐盟註冊殺菌劑 有效成分	使用狀態 (Status)	項次	歐盟註冊殺菌劑 有效成分	使用狀態 (Status)
	gultardialdehyde)				

註：使用狀態為 Approved 表示此有效成分列於法規所允許使用的成分

使用狀態為 Not Approved 表示此有效成分未列於法規所允許使用的成分

使用狀態為 Pending 表示此有效成分目前在評估階段

資料來源：

1. 歐盟列管活性成分資料庫(EU Pesticides database)：http://ec.europa.eu/sanco_pesticides/public/index.cfm

2.3-2 美國環境用藥管理之最新法令規定

美國環境用藥由環保署所規範，網站資料架構如圖 2.3-1 所示。

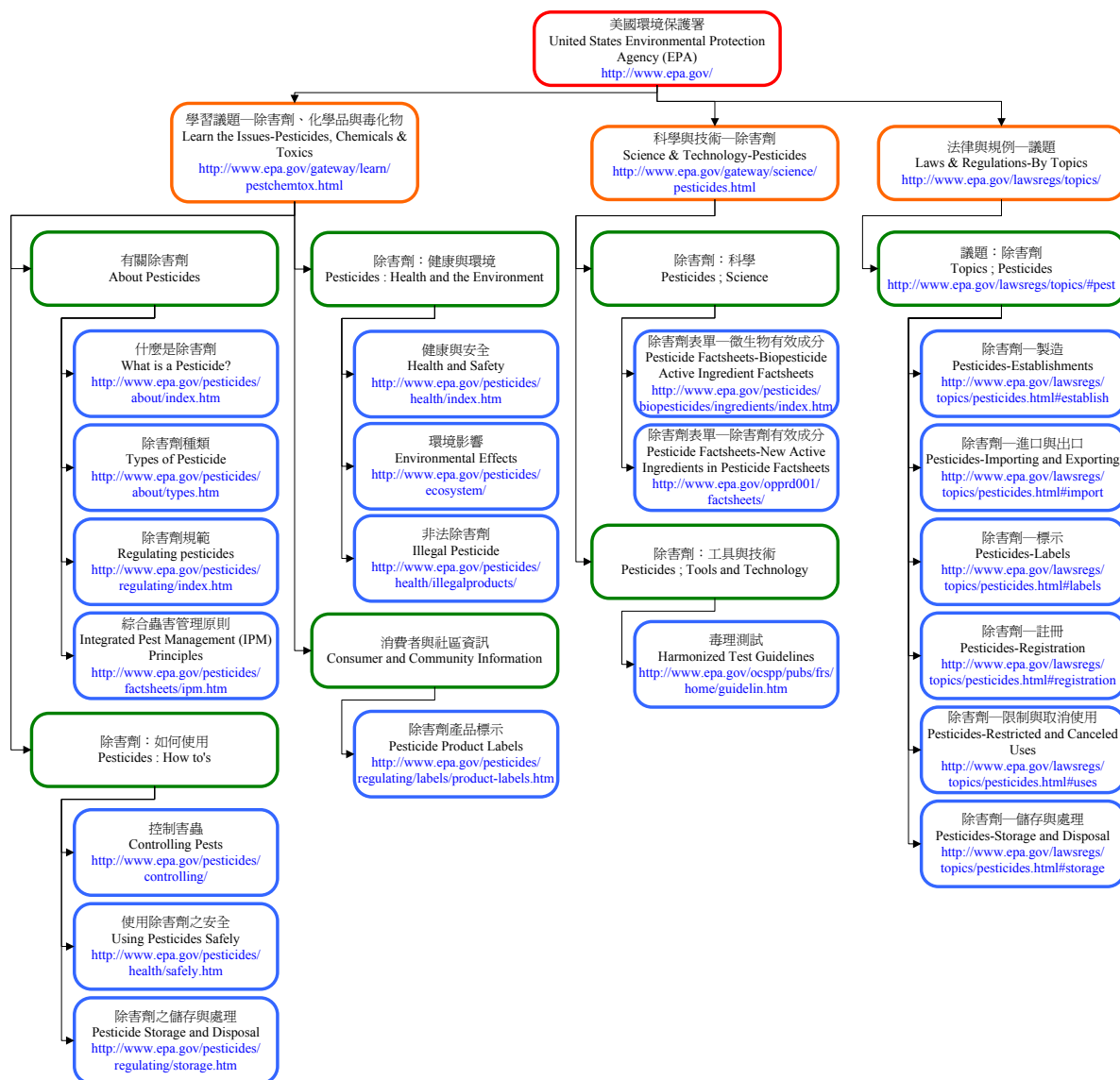


圖 2.3-1 美國網站資料架構

一、最新法令

美國環保署於 2011 年 6 月 7 日訂定發布，爲了降低國人於殺鼠劑影響之風險，進而保護孩童、寵物及野生動物，自 2011 年 6 月 4 日施行嚴格規範殺鼠劑產品並列出合格之產品規格，對於市面上不合格之殺鼠劑產

品，一律下架不販售。以下為四大類殺鼠劑之新的合格產品名單：

(一)第一類鼠站(防孩童與狗破壞且具耐候性，適用於室內、外)，如圖 2.3-2 所示，共計 8 項產品：

項次	產品名稱	環保署註冊碼	有效成分	註冊狀態	目標鼠類	
					家鼠	褐/黑鼠 (大鼠)
1	Tomcat® Mouse Killer I	12455-120	Bromethalin	Registered 10-13-2010	Yes	-
2	Tomcat® Mouse Killer	12455-121	Bromethalin	Registered 4-27-2010	Yes	-
3	Tomcat® Rat Killer	12455-122	Bromethalin	Registered 4-27-2010	Yes	Yes
4	d-Con® Bait Station XIV	3282-100	Diphacinone	Registered 9-3-2010	Yes	-
5	d-Con® Bait Station XIII	3282-101	Diphacinone	Registered 9-3-2010	Yes	-
6	d-Con® Bait Station XI;	3282-102	Diphacinone	Registered 9-3-2010	Yes	-
7	d-Con® Bait Station XII	3282-103	Diphacinone	Registered 9-3-2010	Yes	-
8	Tomcat® Mouse Killer VI	12455-119	Diphacinone	Registered 4-27-2010	Yes	-



圖 2.3-2 第一類鼠站(右上角圖示表防孩童與狗)

(二)第二類鼠站(防孩童與狗破壞，僅適用於室內)

目前尚無已註冊之產品。

(三)第三類鼠站(僅防孩童破壞，適用於室內)，如圖 2.3-3 所示，共計 12 項產品：

項次	產品名稱	環保署註冊碼	有效成分	註冊狀態	目標鼠類	
					家鼠	褐/黑鼠 (大鼠)
1	d-Con® Hideaway d-Con Bait Shield VII	3282-96	Bromethalin	Registered 2-3-2010	Yes	-
2	d-Con® Corner Fit d-Con Bait Shield VIII	3282-97	Bromethalin	Registered 2-3-2010	Yes	-

項次	產品名稱	環保署註冊碼	有效成分	註冊狀態	目標鼠類	
					家鼠	褐/黑鼠 (大鼠)
3	Chemisco Refillable Bait Station	9688-291	Bromethalin	Registered 4-19-2011	Yes	
4	Assault Mouse Bait Station III CU	67517-90	Bromethalin	Registered 1-13-2011	Yes	
5	Tomcat® Mouse Killer II	12455-123	Bromethalin	Registered 6-1-2010	Yes	-
6	Tomcat® Mouse Killer III	12455-129	Bromethalin	Registered 6-1-2010	Yes	-
7	Chlorophacinone Refillable Bait Station	7173-293	Chlorophacinone	Registered 3-8-2011	Yes	
8	d-Con® Bait Station X	3282-98	Diphacinone	Registered 2-3-2010	Yes	-
9	d-Con® Bait Station X	3282-99	Diphacinone	Registered 2-3-2010	Yes	-
10	Tomcat® Mouse Killer VIII	12455-130	Diphacinone	Registered 6-9-2010	Yes	-
11	Chemisco Disposable Bait Station	9688-285	Bromethalin	Registered 5-17-2010	Yes	-
12	Tomcat Mouse Killer X	12455-138	Bromethalin	Registered 8-25-2011	Yes	-



圖 2.3-3 第三類鼠站(右上角圖示表僅防孩童)

(四)第四類鼠站(未知其防破壞性，適用於室內且孩童與寵物少到處)，共計 11 項產品：

項次	產品名稱	環保署註冊碼	有效成分	註冊狀態	目標鼠類	
					家鼠	褐/黑鼠 (大鼠)
1	Bromethalin Mouse Bait Station	36488-51	Bromethalin	Registered 6-17-2010	Yes	-
2	Assault® Mouse Bait Station CU	67517-89	Bromethalin	Registered 3-31-2010	Yes	-
3	Tomcat® Mouse Killer IV	12455-124	Bromethalin	Registered 6-1-2010	Yes	-
4	Tomcat® Rat Killer I	12455-125	Bromethalin	Registered 6-1-2010	Yes	Yes

項次	產品名稱	環保署註冊碼	有效成分	註冊狀態	目標鼠類	
					家鼠	褐/黑鼠 (大鼠)
5	Chlorophacinone Bait Station	7173-287	Chlorophacinone	Registered 1-9-2009	Yes	-
6	Chlorophacinone Block 0803 Bait Station	7173-289	Chlorophacinone	Registered 1-22-2010	Yes	-
7	Chlorophacinone Block 0803 Bait Station II	7173-295	Chlorophacinone	Registered 3-22-2011	Yes	
8	Prozap Mouse Maze Kills Mice	61282-19	Diphacinone	Registered 1-19-2011	Yes	
9	Tomcat® Mouse Killer V	12455-126	Diphacinone	Registered 6-9-2010	Yes	-
10	Tomcat® Mouse Killer VII	12455-127	Diphacinone	Registered 6-9-2010	Yes	-
11	Tomcat® Mouse Killer IX	12455-128	Diphacinone	Registered 6-9-2010	Yes	-

二、更新資料

美國 2011 年新增 2 項有效成分如下所示，其中 Amisulbrom 殺菌劑用於控制馬鈴薯之疾病，而 Ethiprole 殺蟲劑則用於控制土壤、葉面與種子之害蟲（如蚜蟲、葉甲蟲、臭臭蟲、白蟻與象鼻蟲等），兩者皆為農業用藥，尚無新增環境用藥之有效成分。（更新至 2011 年 11 月 10 日）

項次	有效成分名稱	中文名稱	EPA 化學代碼	CAS NO.	除害劑類型	發布時間
1	Amisulbrom	安美速	016330	348635-87-0	殺菌劑	2011.09
2	Ethiprole	易斯普	005550	181587-01-9	殺蟲劑	2011.03

資料來源：

1. 新鼠餌站產品(New, More Protective Rodenticide Bait Station Products)：

<http://www.epa.gov/oppsrrd1/reregistration/rodenticides/rodent-bait-station.html>

2. 新有效成分清單(Fact Sheets on New Active Ingredients)：

<http://www.epa.gov/opprd001/factsheets/>

2.3-3 日本環境用藥管理之最新法令規定

日本將環境用藥歸類為醫藥食品中的”醫藥部外品”即醫療用藥以外之醫藥用品，由厚生勞動省進行規範，其網站資料架構如圖 2.3-4 所示。

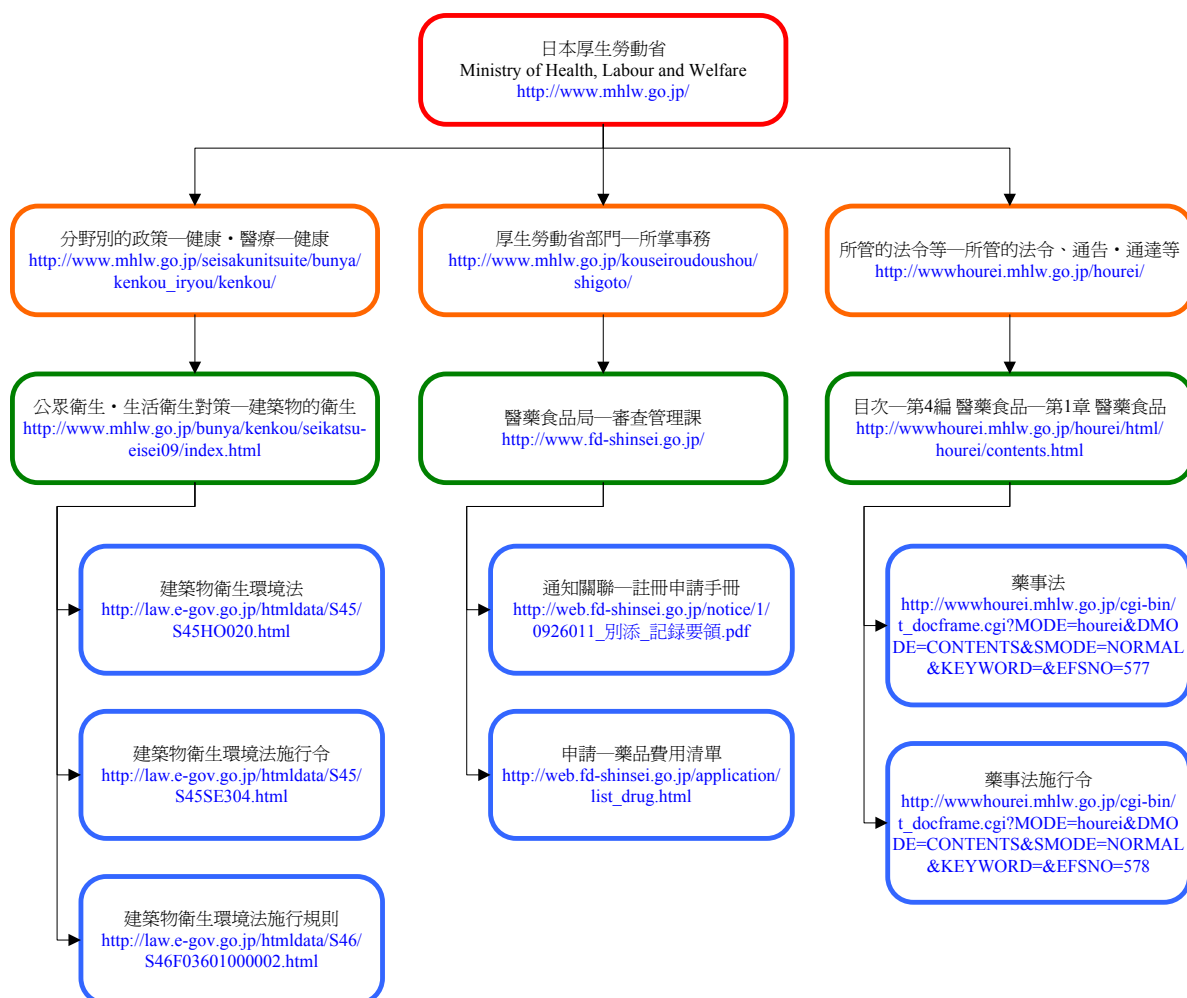


圖 2.3-4 日本網站資料架構

日本於平成 15 年 4 月(西元 2003 年)訂定發布之建築物衛生環境法施行規則(建築物における衛生的環境の確保に関する法律施行規則)，使用害蟲綜合管理計畫(Integrated pest management; IPM)方法將老鼠、蟑螂等其他害蟲趕出居家環境。此規範於平成 23 年 6 月 24 日(西元 2011 年)修正公布之內容如下所列：

- 一、自訂定公布 20 天後施行。
- 二、本法第七條第四點：

達到以下註冊規定之上課時數，即可申請註冊：

項次	規定項目	時間
1	建築物衛生行政概論	10 小時
2	建築物構造概論	8 小時
3	建築物環境衛生	12 小時
4	空氣環境調整	26 小時
5	供水與汙水管理	20 小時
6	清掃	16 小時
7	鼠、昆蟲等其他病蟲害防治	8 小時

資料來源：

1. 建築物衛生環境法施行規則：<http://law.e-gov.go.jp/htmldata/S45/S45HO020.html>

2.3-4 大陸地區環境用藥管理之最新法令規定

大陸地區的環境用藥由中華人民共和國衛生部與農業部所規範，民間組織管理則為中國衛生有害生物防制協會為主。其網站資料架構如圖 2.3-5 所示。

中國衛生有害生物防制協會(The Chinese Pest Control Association; CPCA) 為中國國內從事衛生有害生物防制之專業性、全國性與非營利性社會組織，且為衛生有害生物防制領域內最具權威性的唯一國家一級行業協會，其前身為《中國鼠害與衛生蟲害防制協會》，於 1992 年經中華人民共和國衛生部與民政部批准成立。然而，為了進一步發揮協會作用，協會於 2009 年 7 月 2 日更名為中國衛生有害生物防制協會。

協會的宗旨為貫徹執行國家方針、政策與”預防為主”的衛生工作，其防制對象為城鄉鼠害、蚊、蠅、蟑螂、臭蟲、蝨、蟬、蟻及蟻等衛生有害生物。於大陸地區將老鼠、蒼蠅、蚊子與蟑螂合稱為四害。

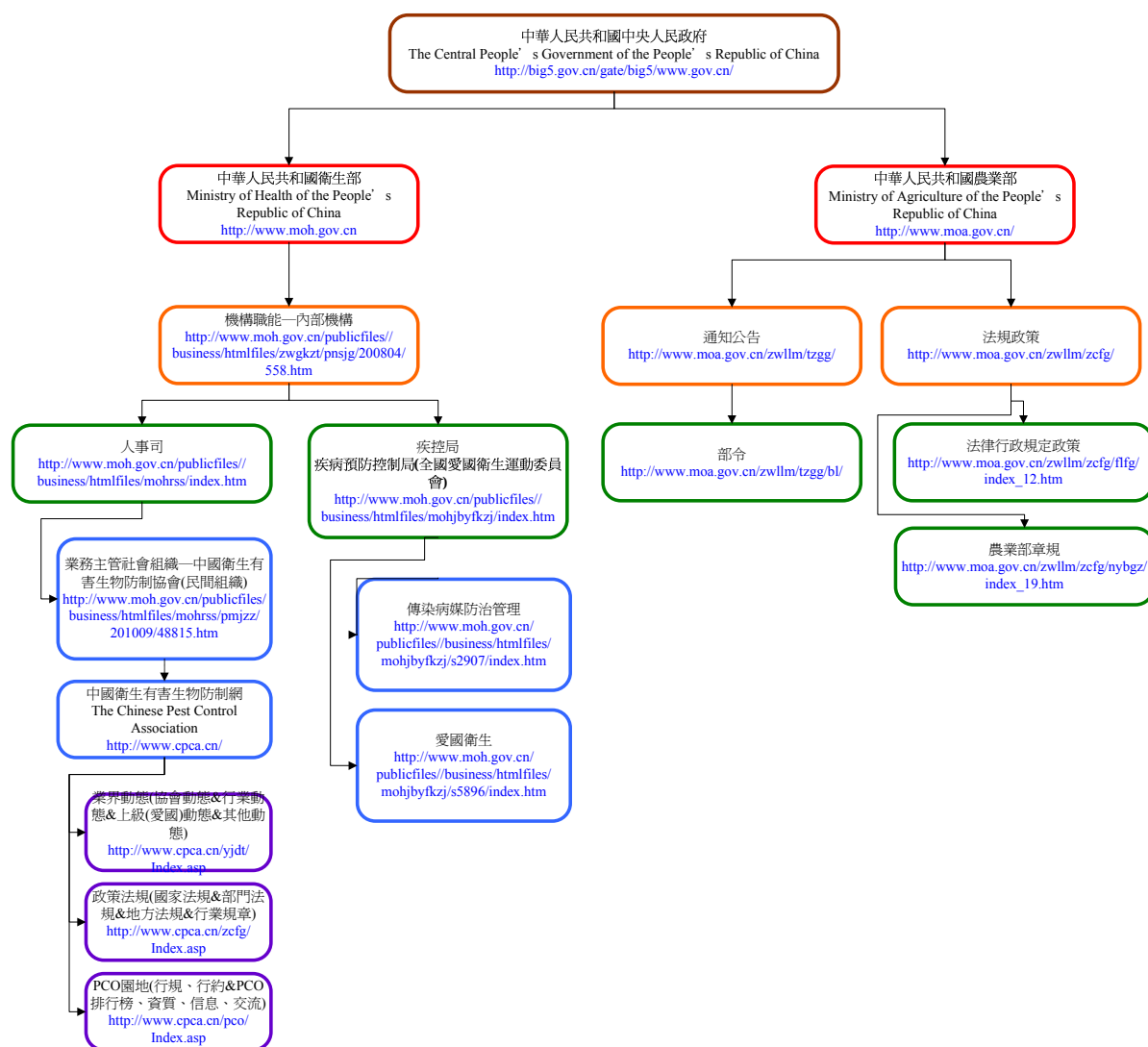


圖 2.3-5 大陸地區網站資料架構

更新之法規修正如下所列：

- 一、中國衛生有害生物防制協會於 2011 年 9 月 7 日修正公布《有害生物防制服務機構資質等級評定》實施辦法，針對有害生物防制服務機構資質等級評定之申請進行規範，評定之工作程序為申請、人員培訓、申請資料審核、現場審核、綜合審核與頒發證書，法規內容如附件十四所示。
- 二、中國衛生有害生物防制協會於 2011 年 1 月 10 日修正公布《中國衛生有害生物防制協會 PCO(Pest Control Operation;有害生物防制業)綜合實力排行評定實施辦法》，針對 PCO 綜合實力排行評定進行規範，評定之程序為申請、初審、評審、發榜與宣傳，法規內容如附件十五所示。

2.4 收集歐盟、美國與亞洲地區有關環境用藥管理其替代物之相關資訊與採行措施

因應綠色化學管理趨勢，本年度持續收集歐盟、美國與亞洲地區之環境用藥替代物，進而評估替代物質於國內的可行性，以達到綠色化學趨勢之旨。

一、美國

(一)室內/室外昆蟲生長調節劑(indoor/outdoor IGR; insect growth regulator)

昆蟲生長調節劑類似昆蟲體內青春荷爾蒙，會干擾昆蟲生活史中荷爾蒙的平衡，使昆蟲的幼蟲無法順利蛻皮、化蛹或羽化為成蟲繼續繁殖，達到防治效果。此產品之有效成分為 2-[1-Methyl-2-(4-phenoxyphenoxy) ethoxy] pyridine，可於 210 天內控制跳蚤，而於 180 天內即可控制蟑螂。

(二)綠色化學之產品

以美國綠色化學挑戰獎產品進行資料收集，該獎項為美國環保署於 1996 年設立，以綠色化學原理為基礎，應用到化學的設計、加工與其技術，而評選標準涉及產品對健康與環境之有益性、科學創新性及應用之價值等方面。以下為 2011 年參與綠色化學挑戰獎之相關產品：

1. Chlorantraniliprole 殺蟲劑有效成分

由 E.I. du Pont de Nemours 與其公司研發製造，Chlorantraniliprole 結合了化學、生物毒理學、環境與作用點之研究，能阻斷昆蟲之神經傳輸且具昆蟲選擇性，提升人們與其他生物的安全性。Chlorantraniliprole 可以替代除蟲菊精類、氨基甲酸酯與有機磷殺蟲劑，且其效果較佳，已取得美國 EPA 註冊為降低風險之殺蟲劑。

除此之外，添加 Chlorantraniliprole 有效成分之殺蟲劑產品 Coragen®、Altacor®與 Acelepryn®已於美國進行販賣，且於 2010 年期間，將 Coragen®產品推廣於 90 萬畝以上之蔬菜中使用，而

Altacor®產品推廣於 60 萬畝以上之水果樹、堅果樹及葡萄中使用。

2.VigorOx® Biocide 殺菌劑

由 FMC 股份有限公司研發製造，VigorOx® Biocide 殺菌劑之配方參考過氧乙酸(peracetic acid; PAA)其可用於醫療與食品工業之安全性與 PAA 之高氧化性，進而調配 PAA 中過氧化氫的比例製成。由於 PAA 分解為對環境無害之氧氣、水與醋酸，降低環境與人類健康之風險，取代戊二醛除菌劑，除此之外，此產品已於 2010 年取得專利且向 EPA 註冊。

二、印尼

(一)Mitol 20EC 殺菌劑

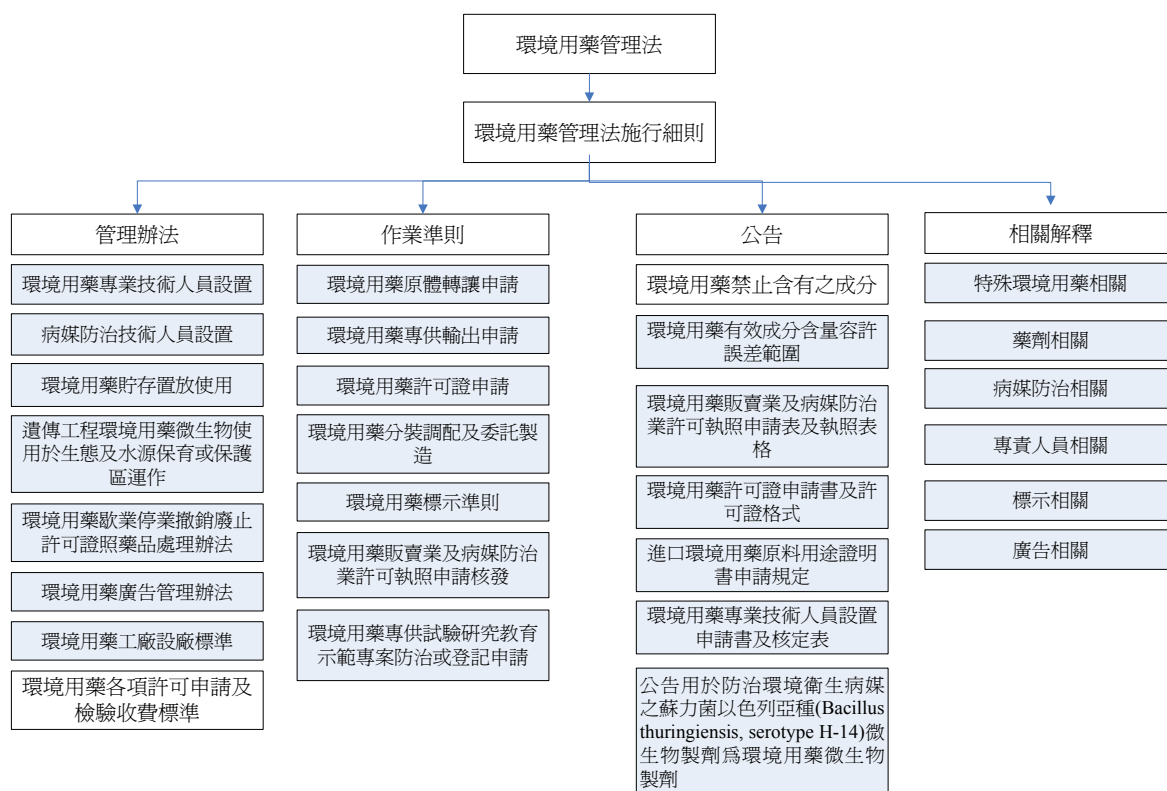
由 Meori Agro 公司研發製造，其有效成分為天然的丁香酚與丁香酚酯，可用以控制植物病原真菌。除此之外，Mitol 20EC 殺菌劑已取得專利與製造許可證。

(二)Samro Biosida 殺菌劑

由 Samro Technology Indonesia 公司研發製造，其主要成分由植物提煉與微生物發酵而成，可控制害蟲、真菌與植物疾病。

2.5 針對現行環境用藥管理措施提出檢討與建議

我國現行環境用藥管理法架構如圖 2.5-1 所示，主要分為四大類：管理辦法、作業準則、公告與相關解釋。本年度持續更新歐盟、美國、日本及中國大陸環境用藥管理之最新法令規定，並收集亞洲地區(泰國、印尼、越南、韓國、新加坡及香港)之環境用藥管理規定，將上述各國之環境用藥管理現況與目前國內管理政策措施進行比較，如表 2.5-1 所示。



註：1.環境用藥各項許可申請及檢驗收費標準
2.環境用藥禁止含有之成分
於99年公告修正

圖 2.5-1 我國環境用藥管理法規架構

表 2.5-1 我國與各國環境用藥管理現況分析

相關規定	我國	歐盟	美國	日本	大陸地區	香港	泰國	印尼	越南	韓國	新加坡
1.鹿特丹公約與其簽訂時間	---	○ 1998.09.11	○ 1998.09.11	○ 1999.09.11	○ 1999.08.24	○ 2008.08.26	○ 2002.02.19	○ 1998.9.11	○ 2007.05.07	○ 1999.09.07	○ 2005.05.24
2.斯德哥爾摩公約與其簽訂時間	---	○ 2001.05.23	○ 2001.05.23	○ 2002.08.30	○ 2001.5.23	○ 2001.05.23	○ 2002.05.22	○ 2001.05.23	○ 2001.05.23	○ 2001.10.04	○ 2001.05.23
3.環境用藥歸屬	環境用藥	---	農藥	醫藥	農藥	農藥	危害物質	農藥	環境用藥	醫藥	環境用藥
4.環境用藥管理單位	環保署	--- (發布指令)	環保署	厚生省	農業部	漁農自然護理署	食品藥物管理局	農業部	衛生部	食品藥物管理局	國家環境局
5.環境用藥管理法律	環境用藥管理法 規	1.1107/2009 2.1999/45/EC	Federal Insecticide, Fungicide, and Rodenticide Act	1. 藥 事 法 (Pharmaceutical Affairs Act) 2.建築物衛生環境法	1.除害劑管理條例 2.除害劑管理條例 實施辦法	除害劑條例	危害物質法 (Hazardous Substance Act BE2535(1992))	1.第七號法令 2.除害劑註冊條款 與 程 序 (Nomor:24/Per mentan/SR.140/ 4/2011)	衛生與居家殺蟲 劑管理決策 (3486/2001/QD-B YT)	製藥法(藥事 法)(Pharmaceutic al Affairs Act)	居家害蟲管理法 (Control of Vectors and Pesticides Act)
6.管理防治之害蟲對象	1.蟲 2.蟎 3.鼠 4.菌 5.其他有害環境 衛生生物	1.蟲 2.蟎 3.鼠 4.菌 5.其他有害生物	1.蟲 2.鼠 3.菌 4.蚊 5.其他有害生物	1.蟲 2.鼠 3.蟑螂 4.蚊 5.其他有害生物	1.鼠 2.蟑螂 3.蚊 4.蒼蠅 5.其他有害生物	1.蟲 2.鼠 3.菌	1.蟲 2.蟎 3.鼠 4.菌 5.其他有害生物	1.蟲 2.其他導致傳染 疾病之生物	1.蟲 2.菌	1.蟲 2.菌 3.其他導致傳染 疾病之生物	1.鼠 2.蟑螂 3.蚊 4.蒼蠅 5.鼠蚤
7.許可證照種類與有效期間	1.製造許可(5 年) 2.輸入許可(5 年) 3.販賣業 4.病媒防治業	1.產品註冊(展延 後<7 年)	1.產 品 註 冊 (10 年) 2.製造業許可	1.製造許可(5 年) 2.輸入許可(5 年) 3.輸出許可(5 年) 4.販 賣 業 許 可 (5 年)	1.產品臨時註冊 (1 年) 2.產品正式註冊 (5 年) 3.分裝許可(1 年)	1.除害劑註冊 2.除 害 劑 牌 照 (1 年) 3.除 害 劑 許 可 (6 個月)	1.產品註冊(6 年) 2.製造業(3 年) 3.輸入業(3 年) 4.輸出業(3 年) 5.持有業(3 年)	產品註冊： 1.試用許可(1 年) 2.臨時許可(1 年) 3.固定許可(5 年)	1.產品註冊(5 年) 2.製造許可 3.販賣業許可	1.製造許可 2.輸入許可 3.販賣業許可	1.產品註冊(3 年) 2.病媒防治業許 可(3 年)
8.許可證註冊申請費用(約台幣)	1.製造(3,500 元) 2.輸入(3,500 元) 3.販賣(2,000 元) 4.病媒防治(2,000 元)	-	1.產 品 (依 據 PRIA2 以 FY 11/12 decision tree 計算費用)	1.製造(5,209 元) 2.輸入(9,028 元) 3.販賣(7,871 元)	1.臨時(2,325 元) 2.正式(11,625 元) 3.分裝(2,325 元)	1.除 害 劑 (9,313 元) 2.牌照(466 元) 3.許可(578 元)	1.產品(13,148 元) 2.製造(17,530 元) 3.輸入(17,530 元) 4.輸出(17,530 元) 5.持有(17,530 元)	-	1.產品(620 元)	-	1.產品(3,731 元) 2.病媒防治(2,057 元)
9.製造許可證註冊申請資料	1.申請事由(製造/ 輸入) 2.環境用藥基本 資料 3.製造廠 4.申請廠商資料 5.證明文件 6.原體或成品之 物理、化學、生 物性資料 7.理化或生物分 析方法 8.有效成分含量 分析報告 9.毒性檢測報告 10.藥效或效力檢 測 11.製法之要旨 12.產品安全及品	---	1.申請廠商資料 (含各分廠資 料) 2.委託申請資料 (若為委託申 請)	1.申請事由(製造/ 輸入) 2.環境用藥基本 資料 3.製造廠 4.申請廠商資料 5.證明文件 6.原體或成品之 物理、化學性資 料 7.理化分析 8.有效成分含量 分析報告 9.藥效或效力檢 測 10.製法之要旨 11.產品安全及品 管試驗、使用 及儲存說明	<u>分裝許可</u> 1.環境用藥基本 資料 2.製造廠 3.申請廠商資料 4.證明文件 5.產品之化學性 資料 6.毒性檢測報告 7.藥效與殘留檢 測 8.標示說明	<u>除害劑牌照</u> 1.申請事由(輸入 供應/零售/儲存 /製造/再包裝) 2.環境用藥基本 資料 3.申請廠商資料 4.證明文件 5.產品安全、使用 及儲存說明 6.製造場所位置 與類型 7.製造場所安全 防護設施與施 藥器材說明 8.估計年產量 9.用途(本銷/輸 出) <u>除害劑許可證</u>	1.環境用藥基本 資料 2.製造廠 3.申請廠商資料 4.儲存場所資料 5.證明文件 6.製法之要旨 7.儲存場所位置 圖 8.製造、儲存場所 建築架構圖 9.危險範圍地圖 10.專業技術人員 11.容器、包裝資 料與使用說明	---	1.申請廠商資料 2.證明文件 3.品管試驗 4.製造場所安全 防護設施說明 5.專業技術人員	1.申請事由(製造/ 輸入/販賣) 2.環境用藥基本 資料 3.製造廠 4.申請廠商資料 5.儲存場所資料 6.證明文件 7.藥效或效力檢 測 8.製法之要旨 9.產 品 品 管 試 驗、使用及儲存 說明 10.儲存、製造場 所安全防護 設施與施藥 器材說明 11.產品有效期限	---

相關規定	我國	歐盟	美國	日本	大陸地區	香港	泰國	印尼	越南	韓國	新加坡
	12.產品安全及品管試驗、使用及儲存說明 13.污染防治說明 14.標示說明			及儲存說明 12.製造場所建築架構圖 13.專業技術人員 14.原體、材料來源與基本資料 15.許可證字號(已領有之)		除害劑許可證 1.申請事由(輸入供應/零售/儲存/製造/再包裝/使用) 2.環境用藥基本資料 3.申請廠商資料 4.證明文件 5.理化分析 6.有效成分含量分析報告 7.毒性檢測報告 8.製造場所安全防護與施藥器材說明 9.中毒急救、醫療方法 10.年產量 11.用途(輸出/其他)				11.產品有效期限	
10.產品註冊申請資料	---	1.環境用藥基本資料 2.申請廠商資料 3.證明文件 4.理化分析 5.有效成分含量分析報告 6.毒性檢測報告 7.藥效或效力檢測 8.風險評估	1.申請事由(註冊/變更/其他) 2.環境用藥基本資料 3.申請廠商資料 4.證明文件 5.原體或成品之物理、化學性資料 6.理化分析方法 7.有效成分含量分析報告 8.毒性檢測報告 9.藥效檢測 10.標示與包裝說明	---	1.申請事由(臨時/正式) 2.環境用藥基本資料 3.申請廠商資料 4.原體與成品之物理、化學性資料 5.理化分析方法 6.有效成分含量分析報告 7.毒性檢測報告 8.藥效檢測 9.製法之要旨 10.產品安全及品管試驗、使用、儲存及運輸說明 11.他國註冊情形	1.環境用藥基本資料 2.製造廠 3.申請廠商資料 4.原體與成品之物理、化學性資料 5.理化分析方法 6.毒性檢測報告 7.製法之要旨 8.製程中之污染物或雜質 9.產品安全及品管試驗、使用及儲存說明 10.中毒急救、醫療方法 11.他國註冊情形	1.環境用藥基本資料 2.製造廠 3.申請廠商資料 4.證明文件 5.製法之要旨 6.容器、包裝資料	1.環境用藥基本資料 2.申請廠商資料 3.原體與成品之物理、化學性資料 4.理化分析方法 5.有效成分含量分析報告 6.毒性檢測報告 7.藥效檢測 8.標示說明 9.中毒症狀、急救、醫療方法 10.他國註冊情形 11.容器與包裝資料	1.申請廠商資料 2.製造或販賣許可證 3.證明文件 4.有效成分分析報告 5.製法之要旨 6.產品使用及儲存說明 7.標示說明 8.完整之檢測報告	---	1.申請事由(初次/展延/變更) 2.環境用藥基本資料 3.申請廠商資料 4.證明文件 5.營業、儲存場所地址、類型與防護設施說明 6.運輸量 7.用途(輸入/販賣/其他) 8.罐狀包裝認證
11.輸入許可證註冊申請資料	同製造許可證註冊申請資料	---	---	同製造許可證註冊申請資料	1.環境用藥基本資料 2.申請廠商資料 3.證明文件(首次申請) 4.除害劑登記證影本 5.輸入合約影本 6.來源、目的地及代碼	除害劑牌照 同製造牌照註冊申請資料 除害劑許可證 同製造許可證註冊申請資料	1.環境用藥基本資料 2.製造廠 3.申請廠商資料 4.儲存場所資料 5.證明文件 6.理化分析 7.製造、儲存場所建築架構圖 8.危險範圍地圖	---	---	同製造許可證註冊申請資料	---

相關規定	我國	歐盟	美國	日本	大陸地區	香港	泰國	印尼	越南	韓國	新加坡
					7.貨品編碼 8.輸入數量		9.專業技術人員 10.容器、包裝資料與使用說明				
12.輸出許可證註冊申請資料	---	---	---	1.環境用藥基本資料 2.原體或成品之物理、化學性資料 3.藥效或效力檢測 4.製法之要旨 5.產品安全及使用說明 6.目的地及代碼 7.製造銷售記錄	1.環境用藥基本資料 2.申請廠商資料 3.證明文件(首次申請) 4.輸出委託書 5.除害劑登記證影本 6.輸出合約影本 7.來源、目的地及代碼 8.貨品編碼	1.環境用藥基本資料 2.製造廠 3.輸出廠商資料 4.收貨人資料 5.來源、目的地及代碼 6.貨品抵埠詳情	1.環境用藥基本資料 2.儲存場所資料 3.輸出國家 4.證明文件 5.理化分析 6.儲存場所建築架構圖 7.危險範圍地圖 8.專業技術人員 9.容器、包裝使用說明	---	---	---	---
13.販賣許可執照註冊申請資料	1.申請事由(販賣/病媒防治業) 2.許可執照字號(非初次申請) 3.申請公司或行號資料 4.證明文件 5.儲存場所位置圖 6.營業場所位置圖 7.營業、儲存場所安全防護設施與施藥器材說明 8.專業技術人員	---	---	1.環境用藥基本資料 2.許可證字號(已領有之) 3.申請廠商資料 4.證明文件 5.營業場所位置圖與功能 6.專業技術人員	---	除害劑牌照 1.受除害劑註冊時之條件限制 2.受除害劑牌照之條件限制 其餘同製造牌照註冊申請資料 除害劑許可證 同製造許可證註冊申請資料	1.申請事由(販賣/運輸/使用/其他) 2.環境用藥基本資料 3.申請廠商資料 4.儲存場所資料 5.證明文件 6.危險範圍地圖 7.專業技術人員 8.容器、包裝使用說明 9.最高持有量與範圍		1.營業場所安全防護設施說明 2.專業技術人員	同製造許可證註冊申請資料	---
14.標示說明	1.環境用藥字樣 2.警示圖案或警語 3.許可證字號 4.品名 5.有效成分及含量 6.性能 7.劑型及內容量 8.適用範圍及使用方法 9.使用及儲藏時應注意事項 10.中毒症狀、急救及解毒方法 11.廢容器回收清理方式	1.警示圖案及警語 2.品名 3.成分及含量 4.內容量 5.廠商名稱、地址及電話號碼(製造商、輸入商或販賣商) 6.毒性分類 7.危險分類	1.註冊編號(註明 ”EPA Registration No.” 或 ”EPA Reg. No.”) 2.品名、品牌或商標 3.成分及含量(有效成分及惰性成分) 4.內含量 5.使用方法 6.使用及儲藏時應注意事項 7.人體的危害(毒性分類) 8.環境的危害 9.產品註冊者姓	1.環境用藥字樣(標明”醫藥部外品”) 2.警語(注意：不要使用於人體) 3.品名 4.有效成分及含量 5.指定之醫療用藥外的成分 6.性能 7.內容量 8.使用及儲藏時應注意事項 9.廠商名稱及地址 10.製造批號 11.產品有效期限	1.註冊編碼(臨時註冊編碼) 2.品名 3.有效成分及含量 4.性能 5.內容量 6.適用範圍及使用方法 7.使用技術及注意事項 8.廠商名稱 9.製造日期及批號 10.產品有效期限 11.毒性分類 12.製造許可證號或製造文件	1.警語 2.註冊編號 3.品名及類型 4.有效成分及含量 5.劑型及內容量 6.適用範圍及使用方法 7.使用及儲藏時應注意事項 8.急救及解毒方法 9.棄置 10 廠商名稱及地址 11.產品有效期限 12.安全防範措施 13.環境的危害	1.警示圖案與警語 2.註冊編號 3.品名及類型 4.有效成分及含量 5.劑型及內容量 6.中毒症狀及急救方法 7.廠商名稱及地址 8.製造日期或產品有效期限	1.警示圖案與警語 2.註冊編號 3.品名及類型 4.有效成分及含量 5.內容量 6.使用方法 7.儲藏時應注意事項 8.中毒症狀、急救及醫療方法 9.廢容器清理方式 10.廠商名稱、地址及電話號碼 11.製造日期及數	1.警示圖案及警語 2.註冊編號 3.品名 4.有效成分及含量 5.劑型 6.中毒症狀、急救及解毒方法 7.廠商名稱、地址及電話號碼 8.安全注意事項 9.世界衛生組織之毒性分類	1.環境用藥字樣(標明”非藥品”non-pharmaceutical drugs) 2.註冊編號及日期 3.品名 4.有效成分 5.內容量 6.儲藏時應注意事項 7.廠商名稱及地址 8.產品有效期限 9.價格 10.其餘項目列於 Ordinance of the Minister of Health and	1.警示圖案或警語 2.NEA 註冊標示(美國 EPA 註冊編號) 3.品名或品牌 4.有效成分、惰性成分及其含量 5.劑型及內容量 6.適用範圍及使用方法 7.使用及儲藏時應注意事項 8.急救方法及醫療資訊 9.廢容器清理方式 10.廠商、輸入商

相關規定	我國	歐盟	美國	日本	大陸地區	香港	泰國	印尼	越南	韓國	新加坡
	12.廠商名稱、地址及電話號碼(輸入品加註原製造廠國別、名稱及地址) 13.製造日期及批號 14.產品有效期限		名及地址 10.製造許可證號(註明”EPA Est.”)		批號 13.分裝單位(若產品為分裝)	14.物理性與化學性危害		量 12.產品有效期限 13.安全指示		Welfare	名稱及地址 11.製造日期 12.產品有效期限 13.安全措施 14.世界衛生組織之毒性分類 15.使用類型(一般或限制) 16.對非目標生物之毒性影響 17.其他資訊(若 Director-General Public Health 要求)
15.罰則	1.環境用藥販賣業及病媒防治業未註冊許可→台幣 30,000 元以上 150,000 元以下罰鍰 2.製造、加工、輸入偽造或禁用環境用藥者，負責人→台幣 300,000 元以上 1,500,000 元以下罰鍰 3.拒絕、規避或妨礙檢查事項→台幣 30,000 元以上 150,000 元以下罰鍰並限期改善；屆期未改善或情節重大者-撤銷、廢止許可證，必要時並勒令停工、停業或歇業	---	1. 廠 商 違 反 FIFRA 規定→一年以下有期徒刑或(與)約台幣 150,125 元以下罰鍰 2. 個 人 違 反 FIFRA 規定→一個月以下有期徒刑或(與)約台幣 30,025 元以下罰鍰 3.明知故犯違反 FIFRA 規定→一年以下有期徒刑或(與)約台幣 750,625 元以下罰鍰	1.違反註冊規定→撤銷許可證 2.違反販賣相關法條→三年以下有期徒刑或約 台 幣 1,157,400 元以下罰鍰	1.未註冊許可從事相關業務者→沒收違法所得並處違法所得 1 倍以上 10 倍以下罰鍰；無違法所得者處約台幣 468,700 元以下罰鍰 2.許可未展延而繼續從事相關事務者→吊銷許可並沒收違法所得並處違法所得 5 倍以下罰鍰；無違法所得者處約台幣 234,350 元以下罰鍰 3.產 品 未 附 標 示、不明或擅自更改→警告、沒收違法所得並處違法所得 3 倍以下罰鍰；無違法所得者處約台幣 140,610 元以下罰鍰 4.違反除害劑法規定→警告並處 約 台 幣 140,610 元以下罰鍰，若構成犯罪依法追究刑事責任	1.未註冊許可從事相關業務者→一年以下有期徒刑或約台幣 186,250 元以下罰鍰 2.違反註冊規定→六個月以下有期徒刑或約台幣 93,125 元以下罰鍰 3.使用禁用或受管制之成分→六個月以下有期徒刑或約台幣 7,450 元以下罰鍰 4.妨礙牌照檢查事項→六個月以下有期徒刑或 約 台 幣 37,250 元以下罰鍰	1.未註冊許可從事相關業務者→三年以下有期徒刑與(或)約台幣 261,750 元以下罰鍰 2.從事偽造或被撤銷註冊之產品業務者→初犯 - 約 台 幣 436,250 元以下罰鍰；再犯七年以下有期徒刑或 約 台 幣 610,750 元以下罰鍰 3.從事不符合標準或被撤銷註冊之產品業務者→初犯-約台幣 349,000 元以下罰鍰；再犯-五年以下有期徒刑或約台幣 436,250 元以下罰鍰 4.從事禁用產品業務者→初犯-約台幣 698,000 元以下罰鍰；再犯-十年以下有期徒刑或約台幣 87,250,000 元以下罰鍰	1.標示不完整、變更未註冊、無法確認生產數量→撤銷許可證 2.影響健康與環境→審查或撤銷許可證	1.違反衛生與家居殺蟲劑管理決策→撤銷許可證、行政或刑事罰則	1.未註冊許可從事相關業務者→五年以下有期徒刑或約台幣 494,000 元以下罰鍰 2.製藥疏忽→約台幣 24,720 元罰鍰 3.違反製藥法→三年以下有期徒刑或 247,200 以下罰鍰	1.未註冊許可從事相關業務者→初犯-三個月以下有期徒刑或 約 台 幣 466,375 元以下罰鍰；再犯-六個月以下有期徒刑或約台幣 1,165,000 元以下罰鍰

註：”-“表示目前查無相關資料；”---“表示無相關規範

我國環境用藥管理法規著重於環境衛生、污染防治用藥品或微生物製劑之規範，相較於其餘國家大部分尚無將環境用藥單獨管理，仍規範於農業用藥、醫藥或危害物質之中，由此可見，我國之環境用藥管理範圍較小且單純，其管理措施完善，而各國仍有其餘可借鏡之管理方向與措施，以下為我國環境用藥管理政策的建議：

一、建議持續掌握國際公約之規範

鹿特丹公約目前規範之除害劑為 32 項，而斯德哥爾摩公約規範之除害劑為 13 項，針對我國環境用藥禁止含有之成分共 78 項與國際公約及各國之禁用成分進行比較，如表 2.5-2 所示。其中我國之禁用環境用藥成分清單中完全符合斯德哥爾摩公約所規範之除害劑項目，進而保護人類健康與環境免受持久性有機污染物的危害。除此之外，整理鹿特丹公約與他國共同禁用之有效成分，而我國尚未管制禁用之成分，如表 2.5-3 所示，建議可依我國使用情形，逐步推展其有效成分禁止使用於環境用藥。

表 2.5-2 我國環境用藥禁止含有之成分與各國比較

項次	我國目前之禁用成分	中文名稱	各國目前之禁用情況								
			鹿特丹	斯德哥爾摩	歐盟	美國	日本	大陸地區	香港	泰國	印尼
1	1,1,2-Trichloroethane	1,1,2-三氯乙烷									
2	1,1-Dimethylhydrazine	1,1-二甲肼									
3	1,2-Dimethylhydrazine	1,2-二甲肼									
4	1,2-Dichloroethane	1,2-二氯乙烷	v		v	v					
5	1,2-Dichloropropane	1,2-二氯丙烷									
6	1,4-Benzenediol	對-苯二酚									
7	1,4-Dioxane	1,4-二氧路環									
8	1-3-ethylene-2-thiourea	乙烯硫脲									
9	2,4-Dinitrophenol	2,4-二硝基酚									
10	2-Ethoxyethanol	乙二醇乙醚									
11	2-Hexanone	甲基丁基甲酮									
12	2-Methoxyethanol	乙二醇二甲醚									
13	2-Nitropropane	硝基丙烷									
14	4,6-Dinitro- <i>o</i> -cresol	4,6-二硝基鄰甲酚					v				
15	Aldrin	阿特靈	v	v	v	v	v	v	v	v	v
16	Aniline	苯胺					v				
17	Asbestos	石棉									
18	Benzene	苯									
19	β -Butyrolactone	β -丁內酯									

項次	我國目前之禁用成分	中文名稱	各國目前之禁用情況								
			鹿特丹	斯德哥爾摩	歐盟	美國	日本	大陸地區	香港	泰國	印尼
20	Cadmium	鎘								v	
21	Cadmium cocoate	鎘化物								v	
22	Carbon disulfide	二硫化碳					v				
23	Carbon tetrachloride	四氯化碳								v	
24	Chlordane	可氯丹	v	v	v	v			v	v	v
25	Chlordecone	十氯酮		v						v	
26	Chlorobenzene	氯苯									
27	Chlorofluoro-carbons	氟氯碳化物									
28	Chloroform	三氯甲烷					v				
29	Chloromethane	氯甲烷					v				
30	DDT	滴滴涕	v		v	v		v	v	v	v
31	Diazinon	大利松					v				
32	Dichloromethane	二氯甲烷									
33	Dichlorvos	二氯松					v				
34	Dieldrin	地特靈	v	v	v	v	v	v	v	v	v
35	Dimethoate	大滅松					v				
36	Endrin	安特靈		v	v		v			v	V
37	Epichlorohydrin	環氧氯丙烷									
38	EPN	一品松					v				v
39	Ethyl acrylate	丙烯酸乙酯									
40	Ethylene dibromide	二溴乙烷	v		v	v	v	v	v	v	v
41	Ethylene glycol monoethyl ether acetate	乙二醇乙醚醋酸酯									
42	Fenchlorphos	樂乃松									
43	Formaldehyde	甲醛					v				v
44	Heptachlor	飛佈達	v	v	v	v	v			v	v
45	Hexachlorobenzene	六氯苯	v	v	v	v			v	v	
46	Hexachlorocyclohexane	蟲必死	v	v	v	v		v		v	
47	Hexachlorophene	六氯芬									
48	Hydrazine	聯胺									
49	Isophorone	異佛爾酮									
50	Lead	鉛									
51	Lead chromate oxide	鉻酸氧鉛					v				
52	Lead stearate	硬脂酸鉛									
53	Lead tetroxide	四氧化三鉛									
54	Lindane	靈丹	v	v		v	v		v	v	v
55	Mercury oleate	油酸汞	v		v	v	v	v		v	v
56	Methyl bromide	溴化甲烷					v				
57	Mirex	滅蟻樂		v					v	v	v
58	Nonylphenol	壬基苯酚									
59	o-Dichlorobenzene	鄰-二氯苯								v	
60	Paraformaldehyde	仲甲醛									
61	Parathion	巴拉松	v			v	v	v			

項次	我國目前之禁用成分	中文名稱	各國目前之禁用情況								
			鹿特丹	斯德哥爾摩	歐盟	美國	日本	大陸地區	香港	泰國	印尼
62	Pentachlorobenzene	五氯苯		v							
63	Pentachlorophenol	五氯酚	v			v	v		v	v	
64	Perfluorooctane sulfonic acid, its salt	全氟辛烷磺酸及其鹽類									
65	Permethrin (cis:trans=40:60)	百滅寧									
66	Phenol	酚					v				
67	Propyleneoxide	氧化丙烯									
68	Rhodamine B	若丹明 B									
69	Sodium dichromate	重鉻酸鈉									
70	Sodium pentachlorophenate	五氯酚鈉									
71	Tetrachloroethylene	四氯乙烯									
72	Thiourea	硫脲									
73	Toluene diisocyanate	二異氰酸甲苯									
74	Toxaphene	毒殺芬	v	v		v		v		v	v
75	Tributyltin oxide	氧化三丁錫	v			v					
76	Trichloroethylene	三氯乙烯									
77	Tricresyl phosphate	鄰酸三甲苯酯									
78	Tri- <i>o</i> -cresyl phosphate	磷酸鄰位三甲苯酯									

表 2.5-3 他國共同禁用之有效成分清單

項次	禁用成分	中文名稱	各國目前之禁用情況							
			鹿特丹	歐盟	美國	日本	大陸地區	香港	泰國	印尼
1	2,4,5-Trichlorophenol	2,4,5-三氯酚	v		v			v	v	v
2	Aldicarb	得滅克	v		v					v
3	Binapacryl	百蟎克	v	v	v			v	v	
4	Captafol	四氯丹	v	v	v			v	v	v
5	Chlordimeform	殺蟲脒	v		v		v		v	v
6	Chlorobenzilate	克氯苯	v		v			v	v	
7	Dinoseb	達諾殺	v	v	v				v	v
8	Endosulfan	安殺番	v		v	v			v	v
9	Ethylene oxide	環氧乙烷	v	v	v				v	
10	Fluoroacetamide	氟乙醯胺	v		v		v		v	
11	Monocrotophos	亞素靈	v		v		v		v	
12	Phosphamidon	福斯胺	v		v		v		v	

二、建議加重環境用藥罰則

目前國內每年仍可查獲未經註冊之環境用藥產品，於法令罰則相較下我國

罰則較輕，從我國環境用藥管理法規中可知，我國之罰則僅針對觸法且致人於死、重傷或危害人體健康導致疾病者，處以較重之懲罰，著重於事後的處罰，建議可針對觸法之罰則加重懲罰，以預防與減少意圖規避或違法業者，亦可針對環境生態影響方面，擬定相關規範。

三、建議規範殺鼠劑產品規格

美國環保署針對殺鼠劑產品(鼠站)規格進行規範，依其安全性分為四大類：

- (一)防孩童與狗損壞且具耐候性，適用於室內、外
- (二)防孩童與狗損壞，適用於室內
- (三)防孩童損壞，適用於室內
- (四)未知其防損壞性，適用於室內且孩童與寵物少到處

目前於國內管制大多為開放式包裝，建議我國可採取相同之管理措施，以降低殺鼠劑影響之風險，進而保護孩童、寵物及野生動物，亦可確保目前販售之鼠站其安全性。

四、建議更新環境用藥之毒性分類

我國目前於環境用藥毒性分類如表 2.5-4 所示，依據 2004 年世界衛生組織 (WHO) 所納入之分類，但 WHO 已於 2009 年更新殺蟲劑毒性分類，向化學品全球調和制度(Globally Harmonized System; GHS)之毒性分類看齊。目前 WHO 公告之毒性分類如表 2.5-5 所示，而 GHS 公告之毒性分類詳細資料如圖 2.5-2 所示，建議我國亦更新環境用藥之毒性分類。

表 2.5-4 我國之環境用藥毒性分類

	鼠(rat)經口服 LD ₅₀ mg/kg		鼠(rat)經皮膚 LD ₅₀ mg/kg	
	固體	液體	固體	液體
極毒	<5	<20	<10	<40
高毒	5-50	20-200	10-100	40-400
中毒	50-500	200-2000	100-1000	400-4000
輕毒	>500	>2000	>1000	>4000

註：WHO，Chronicle，29：397-401，1975 年；該分類納入 2004 年 WHO 分類指引。

表 2.5-5 WHO 殺蟲劑之毒性分類

分類	經口服		經皮膚	
	LD ₅₀ ^a (mg/kg bw)	危害程度	LD ₅₀ ^b (mg/kg bw)	危害程度
第一類	<5	致死	<50	致死
第二類	5-50	致死	50-200	致死
第三類	50-300	中毒	200-1000	中毒
第四類	300-2000	有害	1000-2000	有害
第五類	2000-5000	可能有害	2000-5000	可能有害

註：a 表示經口服之試驗生物以鼠為首選

b 表示經皮膚之試驗生物以鼠或兔子為首選

Hazard category	Criteria	Hazard communication elements	
1	Oral LD ₅₀ ≤ 5 mg/kg bodyweight; or Dermal LD ₅₀ ≤ 50 mg/kg bodyweight; or Inhalation (gas) LC ₅₀ ≤ 100 ppm; or Inhalation (vapour) LC ₅₀ ≤ 0.5 mg/l; or Inhalation (dust, mist) LC ₅₀ ≤ 0.05 mg/l	Symbol	
		Signal word	Danger
		Hazard statement	Fatal if swallowed (oral) Fatal in contact with skin (dermal) Fatal if inhaled (gas, vapour, dust, mist)
2	Oral LD ₅₀ > 5 but ≤ 50 mg/kg bodyweight; or Dermal LD ₅₀ > 50 but ≤ 200 mg/kg bodyweight; or Inhalation (gas) LC ₅₀ > 100 but ≤ 500 ppm; or Inhalation (vapour) LC ₅₀ > 0.5 but ≤ 2.0 mg/l; or Inhalation (dust, mist) LC ₅₀ > 0.05 but ≤ 0.5 mg/l	Symbol	
		Signal word	Danger
		Hazard Statement	Fatal if swallowed (oral) Fatal in contact with skin (dermal) Fatal if inhaled (gas, vapour, dust, mist)
3	Oral LD ₅₀ > 50 but ≤ 300 mg/kg bodyweight; or Dermal LD ₅₀ > 200 but ≤ 1000 mg/kg bodyweight; or Inhalation (gas) LC ₅₀ > 500 but ≤ 2500 ppm; or Inhalation (vapour) LC ₅₀ > 2.0 but ≤ 10.0 mg/l; or Inhalation (dust, mist) LC ₅₀ > 0.5 but ≤ 1.0 mg/l	Symbol	
		Signal word	Danger
		Hazard statement	Toxic if swallowed (oral) Toxic in contact with skin (dermal) Toxic if inhaled (gas, vapour, dust, mist)
4	Oral LD ₅₀ > 300 but ≤ 2000 mg/kg bodyweight; or Dermal LD ₅₀ > 1000 but ≤ 2000 mg/kg bodyweight; or Inhalation (gas) LC ₅₀ > 2500 but ≤ 20000 ppm; or Inhalation (vapour) LC ₅₀ > 10.0 but ≤ 20.0 mg/l; or Inhalation (dust, mist) LC ₅₀ > 1.0 but ≤ 5.0 mg/l	Symbol	
		Signal word	Warning
		Hazard statement	Harmful if swallowed (oral) Harmful in contact with skin (dermal) Harmful if inhaled (gas, vapour, dust, mist)
5	Oral or dermal LD ₅₀ > 2000 but ≤ 5000 mg/kg bodyweight Inhalation (gases, vapours and/or dusts/mists) LC ₅₀ in the equivalent range of the oral and dermal LD ₅₀ (i.e., > 2000 but ≤ 5000 mg/kg bodyweight) See also the additional criteria: (a) Indication of significant toxicity effects in humans; (b) Any mortality at Category 4; (c) Significant clinical signs at Category 4; (d) Indication from other studies	Symbol	No symbol
		Signal word	Warning
		Hazard statement	May be harmful if swallowed (oral) May be harmful in contact with skin (dermal) May be harmful if inhaled (gas, vapour, dust, mist)

圖 2.5-2 GHS 之毒性分類

2.6 環境用藥國際法規專家學者會前審查制度

於國際間環境用藥管理規範資料收集，首先針對各國法令規章進行比較評析後提出相關建議，並於審查會議前，邀請環境用藥專家學者徐爾烈教授進行會前審查，審查內容為針對本計畫所收集之國際法規資料、評析與建議進行報告內容修正。環境用藥國際法規資訊收集會前審查流程如圖 2.6-1 所示：

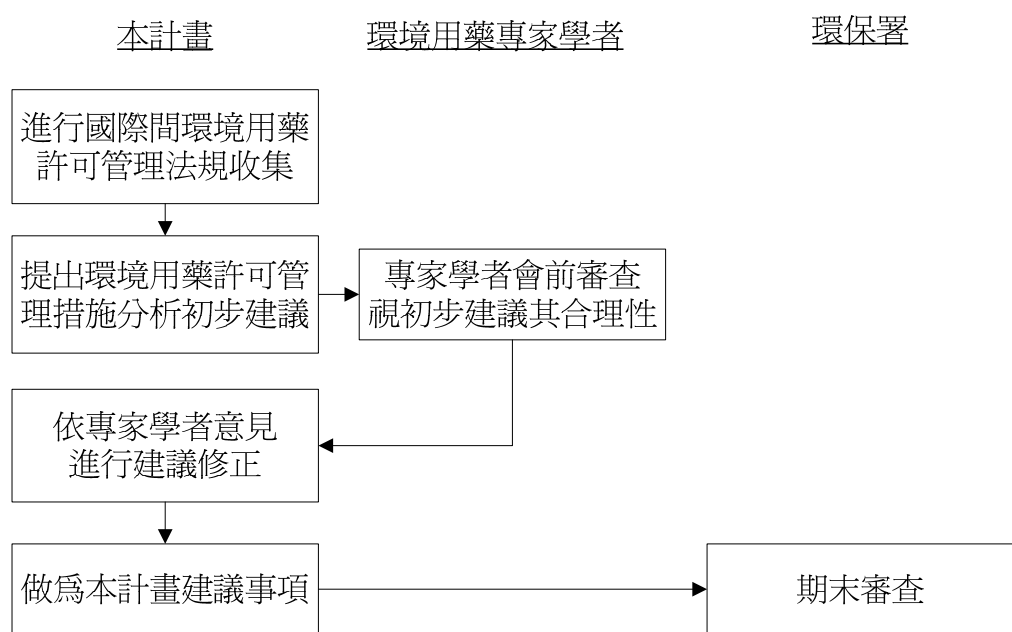


圖 2.6-1 環境用藥國際法規資訊收集會前審查流程

為完善國際法規資料收集，本計畫增加專家會前審查，並搭配合約所規定之期末評審委員審查，藉以完善國際環境用藥法規收集評析資料完整度。

專家學者於會前審查目的，為藉由環境用藥專家學者專業性，針對本計畫所初步提出環境用藥資料蒐集、管理建議措施給予專業性建議，以便環保署方面可依其建議事項可行性與適切性做評估，將其建議正式納入本計畫案建議事項中，並透過環保署針對初步建議事項提出疑慮，由本計畫再次進行資料收集彙整予補充，歷經會議探討將建議事項修正為能符合我國環境用藥管理規範與國際趨勢。

針對本次專家會前審議，所提出建議歸納如下：

- 一、於國際間環境用藥管理分類，可大致區分為農藥、醫藥、危害物管理或與國內環境用藥管理方式相同，國外大多統稱英文 Pesticide，建議以**除害劑**進行內文

撰寫。

二、針對文章內文撰寫有效成分名詞予以調整為較適合之名稱，如：

Hexachlorobenzene(六氯代苯)修正為六氯苯與 Methyl bromide(溴甲烷)修正為溴化甲烷等相關名詞修正。

三、針對報告內文中化學名詞之中文對應名稱予以協助翻譯，如：

1,2,3,4-tetrahydro-2-naphthol 中譯名稱為 1,2,3,4-四氫-2-萘酚、2,4-dinitroanisole 中譯名稱為 2,4-二硝基苯甲醚與 2-phenylcyclohexanol 中譯名稱為 2-苯基環己醇等相關化學名詞翻譯。

第三章 環境用藥使用宣導及安全使用網站

3.1 網站重新建置

環境用藥安全使用網站為目前民眾主要了解環境用藥的基礎宣導網站，本年度為加強日常生活中民眾對於環境用藥使用以及購買等相關資訊，針對目前環境用藥安全使用網站的架構加以調整更新，以利民眾查詢相關知識，針對網站內容進行下列更新，並加以維護及強化網站功能來達到宣導之旨。

一、更新舊版網頁之系統架構及版面

舊版網頁頁面較為傳統，查詢選單較為操作不易，版面改版後以活潑為主要取向，讓版面更具有吸引力，藉以增加網站瀏覽人氣，新版網頁已於 100 年 8 月 12 日完成上線。

網頁改版前後頁面如圖 3-1 所示，網站架構如圖 3-2。



圖 3-1 環境用藥宣導使用網站改版頁面

NEWS	不定時更新環境用藥相關新聞
認識居家害蟲	共分為8個頁籤 蚊子、蒼蠅、蟑螂、跳蚤、螞蟥、衣魚、老鼠其他環境害蟲介紹 (原蚊蠅蟑蟻蚤蟻蟲鼠生態與防治)
環境用藥選購原則	以動畫方式引導民眾選購環境用藥商品原則，資料尚未完成前以原資料使用。 (原住家環境衛生用殺蟲劑之選用)
環境用藥使用方式	針對產品劑型進行使用方式介紹粒劑、噴霧劑、蚊香劑、燻煙劑、餌劑 (新增)
清潔小撇步	蒐集市面上所提供的小撇步，經學者專家進行內容審查後，上架至網站上。
環境用藥商品查核	1.偽藥、禁藥及劣藥說明 2.違反商品名單 3.查獲案件
FAQ	1.偽藥、禁藥及劣藥說明 (原環境用藥不合格產品) 2.問與答 (原環境衛生用藥使用與安全知識環境衛生用藥問與答)
下載專區	1.「戶外清乾淨 蚊子不煩你」宣導節目 2.環境用藥管理及病媒防治技術研討會
相關連結	1.行政院環境保護署 2.環境用藥商品查詢 3.環境E學院 4.綠色生活資訊網 5.ECOLIFE清淨家園顧厝邊生活資訊網 6.綠色學校

圖 3-2 環境用藥安全使用宣導網站架構

二、配合節慶置換網頁版面

配合節慶進行環境用藥安全使用網站首頁網頁底圖更新作業，利用繽紛、活潑且具多樣變化性，來增添節日氣氛，讓使用者進入首頁系統有不同創意感受。

網站底圖更新，於假日前一週將預先將節日底圖更新上線，並於假日隔天恢復原底圖風格。

本年度設定首頁風格修改的節日規劃，進行首頁風格切換共計 5 個節日，節日背景底圖變換區間，如下表 3-1 所示。

表 3-1 100 年度環境用藥安全使用網站版面更新期程

No	節日	日期	變換區間
1	世界地球日	4/22	4/15(五)~4/25(一)
2	端午節	6/6(一) (農曆 5/5)	5/31(二)~6/7(二)
3	父親節	8/8(一)	8/1(一)~8/9(一)
4	中秋節	9/12(一) (農曆 8/15)	9/6(二)~9/13(二)
5	滅鼠週	11/1(二)~11/7(一)	10/25(二)~11/8(二)

版面置換如圖 3-3 所示。

(一)世界地球日版面



註：新版網頁於 8 月 12 日完成上線，於新版網站完成前，版面僅修正上方版面圖示。

圖 3-3 世界地球日置換版面

(二)端午節版面



註：新版網頁於 8 月 12 日完成上線，於新版網站完成前，版面僅修正上方版面圖示。

圖 3-4 端午節版面置換版面

(三)父親節版面



圖 3-5 父親節版面置換版面

(三)中秋節版面



圖 3-6 中秋節版面置換版面

(三)滅鼠週版面



圖 3-7 滅鼠週版面置換版面

三、製作網頁連結 Banner

製作網頁連結以推廣環境用藥安全使用網站，提供網站連結給政府機關以及其他相關網站，與其網站進行網站相互連結，藉由各單位網站相互連結提升網站排名，而宣導推廣至全民，網頁連結 Banner 如下圖。



圖 3-8 網頁連結 Banner 圖示

四、更新網站內容

瀏覽度高的網站，首要條件就是更新網站的內容及速度，本年度更新項目，如下所示：

- (一)包含時事、新聞並於今年度規劃辦理徵圖比賽、研討會及不定時更新最新用藥資訊
- (二)增加環境清理小撇步
- (三)增加如何購買環境衛生用藥宣導動畫

五、連結相關使用網站

行政院環保署首頁	環境用藥證件查詢系統	環境 E 學院
		
環保署綠色生活資訊網	EcoLife 清淨家園顧厝邊綠色生活	臺灣綠色學校
		

圖 3-9 相關連結網頁首頁圖示

六、增加宣導網站曝光度

- (一)連結至其他相關網站，並交換 Banner。
- (二)設計環境用藥宣導品寄至地方環保局進行發放。

(三)配合環保署舉辦鄰里社區清掃活動，進行宣導文宣的發送。

七、架設網站瀏覽器

新版網頁於 8 月 12 日完成上線，於版面中加入網站瀏覽器，截至 100 年 12 月 26 日瀏覽人氣約為 1 萬 8 千人次，如圖 3-10 所示。



圖 3-10 環境用藥安全使用宣導網站網站計數器畫面

八、架設兒童版網站

網站將由注音文進行文字撰寫，並加入遊戲讓孩童於遊戲過程中輕易了解何謂環境用藥。



註.兒童版網站於 11 月 15 日完成上線

圖 3-11 環境用藥安全使用宣導網站兒童版面

十、如何購買環境用藥宣導動畫

目前民眾於日常購買合格環境用藥產品的資訊尚未不足，本年度規劃製作環境用藥購買簡易步驟動畫，讓民眾可藉由影片輕易了解。

如何購買環境衛生用藥宣導動畫，於 9 月 6 日於環境衛生用藥安全使用網站完成上架，宣導動畫首頁畫面如下圖所示：



圖 3-12 環境用藥安全使用網站宣導動畫首頁



圖 3-13 環境用藥安全使用網站宣導動畫內容畫面

3.2 辦理安全使用環境衛生用藥繪圖比賽

為使民眾能充分了解環境用藥安全的使用方式結合全國繪圖比賽，期許於過程中讓民眾了解環境用藥如何達到用藥之安全。期間鼓勵民眾利用圖畫結合環境用藥安全的使用方式進行個人創作，除邀請專家進行評比外並舉辦網路票選，藉由競賽獎勵方式以達到最佳環境用藥安全使用之宣導，整體活動期程如下所示：

一、活動時程規劃

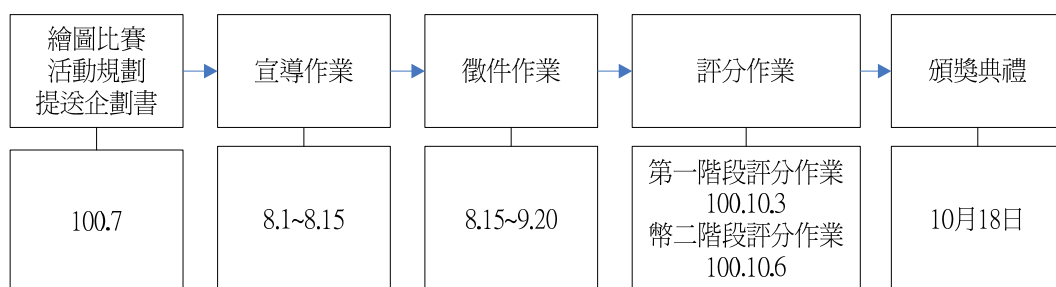


圖 3-14 繪圖比賽活動期程

二、宣導作業

活動訊息於 8 月公布張貼於環保署、環境用藥宣導使用網站以及各大設計網站中，期間並分送相關簡章至各大美術學校，以增加活動曝光率藉以邀請各界參與，於網站張貼主要網站如下：





圖 3-15 活動訊息張貼環境用藥安全使用宣導首頁

三、活動內容及設計需求

- (一)活動簡章：內容包含活動宗旨、主辦單位、活動內容、設計需求、評選標準、獎勵辦法、得獎名單公布、頒獎方式、報名期間、報名方式及注意事項等，請參閱附件十六。
- (二)報名方式：報名表欄位如作品編號、作品主題、姓名、身分證字號、出生年月日、聯絡電話、地址、作品理念、作品名稱等；同意書內容包含責任與著作權相關同意事項，請參閱附件十七、十八。

(三)網頁設計



圖 3-16 繪圖比賽宣導首頁

(四)活動海報



圖 3-17 繪圖比賽宣導海報

四、評選標準

(一)初審：確認作品內容是否符合「安全使用環境衛生用藥繪圖比賽」4項說明意旨其中1項，以及作品規格、應檢附報名資料是否符合參賽規定。通過初審者方可參加複審及網路票選。

(二)複審：

- 1.邀請大眾傳播、美術、視覺傳達及環境衛生用藥專業領域之學界老師各1名，以及業界知名漫畫家1名，共計5名擔任評審委員進行評分，評選出8位得獎作品。
- 2.評選標準以創意45%（含訴求手法新穎度、原創性、精彩度、趣味度）、主體內容45%（主題理念契合性）、技巧表現10%（繪圖技術）
- 3.評分方式採100分為滿分，並採名次點數計算(第一名1點、第二名2點、第三名3點、第四名4點、第五名5點，依此類推)，名次之決定以總名次點數為準，總得點數最低者為第1名，如遇點數相同者，再以分數高者為第1名。

(三)評選委員

邀請大眾傳播、美術、視覺傳達及環境衛生用藥專業領域之學界老師各1名，以及業界知名漫畫家1名，共計5名評審委員，預計聘請專家學者名單如下：

- 1.動漫文創交流協會陳治華理事長
- 2.明志科技大學工業設計系 高清漢
- 3.淡江大學大眾傳播學系 楊明昱 副教授
4. 臺北教育大學環境教育與資源研究所副教授 張育傑
5. 國立臺灣藝術大學工藝設計學系 廖卿枝

五、網路票選

(一)網路票選時程：自 100 年 10 月 5 日中午 12 時開放投票時間截至 10 月 17 日中午 12 時截止。

(二)預防網路灌票

- 1.填寫真實姓名、電子郵件信箱及手機號碼
- 2.回覆確認信函，設定為回覆確認函後投票才列入計算
- 3.IP 位址比對、填寫文字驗證碼

七、獎勵辦法

- (一)第一名乙位：獎金 30,000 元及獎狀 1 幀。
- (二)第二名乙位：獎金 20,000 元及獎狀 1 幀。
- (三)第三名乙位：獎金 10,000 元及獎狀 1 幀。
- (四)佳作獎五位：獎金 5,000 元及獎狀 1 幀。
- (五)評審團特別獎五位：獎品 1 份。
- (六)網路投票抽獎：獎金 3,000 元。
- (七)網路人氣票選十位：人氣獎 1 份。

八、辦理成果

- (一)投稿件數總計 337 件，符合稿件共計 300 件。
- (二)於 100.10.3 選出 20 件通過初審作業之入圍作品
- (三)於 100.10.6 進行複審作業，評選出第一名、第二名、第三名、佳作 5 名以及評審團特別獎 5 名。
- (四)網路人氣票選於 100.10.5 至 100.10.17 中午截止，總投票數共計 1593 票。

九、頒獎典禮



圖 3-18 繪圖比賽頒獎典禮

十、DIY 滅蚊罐

本年度重點工作之一為環境用藥宣導作業，因此藉由頒獎典禮可與民眾面對面宣導的機會，於頒獎作業後舉辦 DIY 滅蚊罐製作宣導活動，讓民眾可藉由製作過程環保署推廣的“環境用藥能不用就不用，能少用就少用的理念”，推廣活動如圖 3-19 所示：



圖 3-19 DIY 滅蚊罐宣導活動

3.3 宣導產品設計概念

本年度針對環境用藥宣導品設計，採取書籤、海報、摺頁以及便利貼四種設計概念，進行文宣宣導的部分，宣導品製作份數總計為 3230 份。

一、摺頁

爲了讓廣大民眾簡單的了解環境用藥，利用 what、where 及 how 三大主題切入宣導主軸，了解環境用藥、哪裡買合格環境用藥產品以及如何購買四步驟，摺頁內容利用簡潔的文字說明，搭配宣導人物柯博武與抹奇增添活潑度，讓一般民眾可藉由摺頁宣導，充分了解環境用藥。



圖 3-20 宣導品摺頁設計封面



圖 3-21 宣導品摺頁設計內容

二、書籤

書籤正面設計以**認識環境衛生用藥**為宣導主題，背面設計為推廣標題**環境用藥能不用就不用能少用就少用、儘量以清掃代替用藥**為主，簡單的介紹出環境用藥並且搭配居家清掃來降低殺蟲劑對於環境的負荷，宣導書籤採漫畫式主題搭配設計，讓宣導作業可擴至更多元的年齡層，達到簡易宣導之目標，書籤設計如圖 3-22 所示：



圖 3-22 宣導品書籤設計圖稿

三、海報

一般民眾於採買市售環境用藥時往往不知如何選購適當的產品，於宣傳海報設計主要針對民眾於購買環境用藥時，所需要考量的內容，並以標語化重點標示，海報發送於各縣市環保局，以轄區之主要賣場進行宣導。



圖 3-23 宣導品海報設計圖稿

四、便利貼

便利貼的實用性在日常生活中已成了不可或缺的文具，本年度特別訂製專屬客製化的便利貼，於封面上方印製宣導網站及安全使用環境用藥的注意事項，主要利用便利貼的實用性及貼近生活化，達到全盤化的宣導目的。

封面	封底
	
內頁一	內頁二
	

圖 3-24 便利貼設計圖稿

3.4 宣導品發放及宣導策略

一、宣導政策

- (一)利用民眾親身參與活動了解環境用藥相關知識
- (二)發送書面宣導品推動無法使用 E 化宣導之民眾
- (三)定期更新網頁宣導，強化宣導網站內容
- (四)搭配本計畫及其他環境教育計畫或其他部會進行宣導品發放

二、宣導品發放

- (一)搭配本計畫年度相關活動
 - 1.環境用藥技術應用研討會
 - 2.繪圖比賽
- (二)搭配地方相關部會如環保局、鄉鎮鄰里

3.5 環境用藥使用宣導預期效益

為推廣民眾於居家生活中所接觸的殺蟲劑、蚊香以及老鼠藥等相關環境用藥知識，本年度進行推廣宣導”如何正確安全的使用環境用藥”的觀念，透過環境用藥安全使用宣導以及全國徵圖比賽活動，期間鼓勵民眾以結合個人創作，藉由競賽方式更加了解環境用藥使用的正確性；同時調整環境用藥宣導安全使用網站之架構，提昇網站瀏覽率，藉以達到正確的使用觀念的推廣。同時推廣配合居家周圍環境的清理，減少環境用藥產品的使用，降低環境中的化學物質累積，藉以達到無毒的家與全民參與宣導的目的。

三大宣導重點

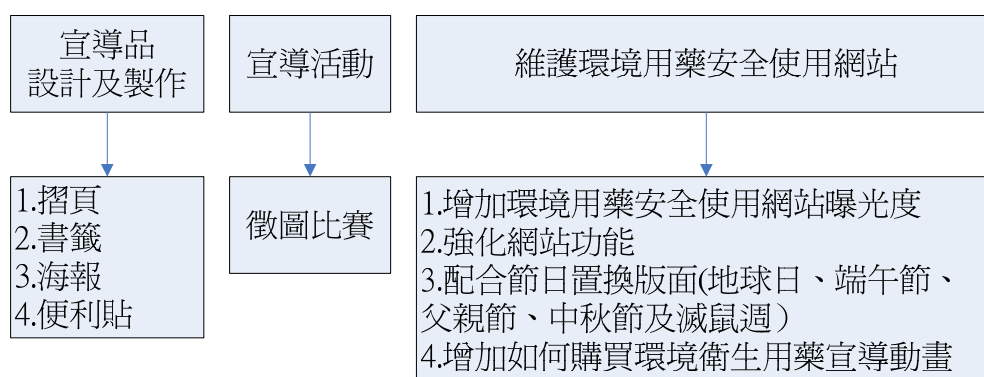


圖 3-25 宣導工作重點

第四章 辦理環境用藥技術應用研討會

本年度針對目前國內外環境用藥管理及防治之議題，邀請專家學者以研討會講座之方式，辦理為期一天的環境用藥技術應用研討會，針對環境用藥應用於驅蚊及誘蚊防治效果，以及小黑蚊、登革熱病媒蚊、入侵紅火蟻等防治技術，邀請專家學者專題介紹，提供民眾共同有效防除家中擾人的害蟲防治方法，期望藉由研討會的課程內容，以提昇業者、地方以及中央主管機關相關承辦人員對於環境用藥的了解，藉以達到環境用藥應用技術整體之宣導。

4.1 研討會規劃時程與內容

環境用藥技術應用研討會，規劃如下：

一、辦理對象：中央主管機關承辦人員、地方機關承辦人員及環境用藥病媒蚊業者。

二、辦理時程：10 月 28 日。

三、辦理場次與地點：集思台大會議中心蘇格拉底廳（台北市羅斯福路四段 85 號 B1），預計辦理 1 場次。

四、辦理人數：總計 123 人(請參閱附件十九)。

五、應用研討會相關作業規劃

(一)邀稿方式：聘請國立台灣大學昆蟲系徐爾烈教授邀請各專家學者參與，針對各學者發表文章進行統一彙整成論文集。

(二)邀稿格式：參考國科會各研討會論文格式。

(三)投稿期限：至 100 年 10 月 20 日截止。

(四)撰稿費用：依署內相關規定由本計畫辦理。

(五)出席費用：依署內相關規定由本計畫辦理。

六、專家學者：

聘請專家學者主講人名單如下：

(一)唐立正 副教授

1.現任：國立中興大學昆蟲系

2.專長領域：昆蟲研究法、昆蟲微生物防治學、作物害蟲診斷學、蟲害概論。

(二)夏維泰 副研究員

1.現任：行政院衛生署疾病管制局

2.專長領域：病媒蚊防治、噴藥器材實作、登革熱相關防治

(三)劉碧隆 所長

1.現任：鳳山衛生所

2.專長領域：登革熱防治

(四)蕭亞玲 專員

1.現任：經濟部工業局

2.專長領域：產業輔導專案計畫，負責項目為農藥（植物保護劑）、環境衛生用藥、毒性化學品、動物用藥品。

(五)黃基森 副教授

1.現任：台北市立教育大學地球環境暨生物資源學系(韓環境教育與資源碩士班)

2.專長領域：環境管理、環境衛生、生態保育、醫學昆蟲、環境微生物學

(六)徐爾烈 名譽教授

1.現任：國立台灣大學昆蟲系教授

2.專長領域：昆蟲毒理學、昆蟲生理學、昆蟲生物化學

(七)白秀華 教授

1.現任：高雄大學運動健康與休閒系教授兼系主任

2.專長領域：環境健康、健康促進理論與實務、登革熱相關防治

聘請專家學者引言人名單如下：

(一)徐爾烈 名譽教授

1.現任：國立台灣大學昆蟲系教授

2.專長領域：昆蟲毒理學、昆蟲生理學、昆蟲生物化學

(二)王正雄 副教授

1.現任：國立台灣大學公共衛生系副教授

2.專長領域：病媒管制、環境衛生、環境檢驗、環境保護

(三)張念台 教授

1.現任：屏東科技大學植物醫學系教授

2.專長領域：昆蟲生態、綜合防治、植物抗蟲

(四)吳懷慧 副教授

1.現任：大仁科技大學生物科技系暨研究所

2.專長領域：病媒、衛生螞蟥學

(五)羅怡珮 副教授

1.現任：嘉南藥理科技大學生物科技暨碩士班

2.專長領域：昆蟲學、生物學、農藥毒理學、殺蟲劑毒理學、衛生害蟲防治、昆蟲抗藥性、環境用藥藥效檢定

七、環境用藥技術應用研討會文宣規劃作業

(一)宣傳海報 50 張，將於環境用藥技術應用研討會前寄至地方環保局。



2011年環境用藥技術應用研討會

報名資訊

會議地點
集思台大會議中心 蘇格拉底廳 (國立臺灣大學第二活動中心)
台北市大安區羅斯福路四段85號B1

主辦單位
● 地方環保局承辦人員
● 環境用藥製造、販賣業、病媒防治業之業者
● 大專院校及其他相關單位與民眾

報名方式
環境用藥管理資訊系統
<http://mdc.epa.gov.tw/MDC/> 進行報名

辦理時間
中華民國100年10月28日 星期五

聯絡電話
02-66308000分機220、340

報名時間
10月11日起至10月20日止

主辦單位
行政院環境保護署

協辦單位
環資國際有限公司

研討會議程

時間	內容
08:30-09:00	報到
09:00-09:10	貴賓開幕致詞 主持人：林建輝處長(行政院環境保護署專管處)
專題演講	講題 主講人及引言人
09:10-09:40	演講1 環境用藥管理現況與展望 引言人：徐耀烈 主講人：鄭春菊科長 行政院環境保護署
09:40-10:20	演講2 小農蚊生蟲防治 引言人：王正雄 主講人：唐立正 中興大學 昆蟲系
10:20-10:30	茶 敘
10:30-11:10	演講3 環境衛生用藥之器械及應用 引言人：張念台 主講人：夏維泰 疾病管制局 副研究員
11:10-12:00	演講4 登革熱之化學防治要領 引言人：張念台 主講人：劉碧隆 鳳山衛生所所長
12:00-13:00	午 餐
13:00-13:40	演講5 環境用藥產製台港製品mit 引言人：徐耀烈 主講人：蕭亞瑋 僑英標準之制度推行 工業局 專員
13:40-14:20	演講6 不同劑型防治入侵紅火蟻成效評估 引言人：吳世賢 主講人：黃基亞 臺北市立教育大學地球環境與生物資源學系 (含環境教育與資源碩士班)
14:20-14:40	茶 敘
14:40-16:20	演講7 忌避劑之種類及使用 引言人：羅怡鳳 主講人：徐耀烈 台灣大學 昆蟲系
16:20-17:00	演講8 病媒蚊幼蟲之綜合防治 引言人：羅怡鳳 主講人：白秀華 高雄大學 運動健康與休閒學系
17:00-17:20	綜合討論
17:20-17:30	主席閉幕

圖 4-1 環境用藥技術應用研討會宣傳海報

(二)與會之識別證製作 142 份

(三)邀請函、會議手冊及會議議題資料、論文資料及光碟片(約 160 份)等設計、編輯、製作及印製。

八、會場行政支援

(一)會場租借佈置

- (二)會場佈置及清理指引牌、海報及演講台 LOGO 板
- (三)會場報到及簽名註冊、研習會議義資料分發
- (四)會議議程之時間控制及接待人員安排
- (五)電腦、視聽設備規劃及執行作業(包括電腦、視聽設備租用及聯絡協調等)。
- (六)會議記錄、拍照
- (七)會中現場工作及接待人員之安排運用、會後善後清潔、餐點分發（午餐、茶點約 140 份、晚宴 15 人份，晚宴如圖 4-2。）



圖 4-2 環境用藥技術應用研討會晚宴

九、課程規劃：主要以環境用藥應用技術為主，課程規劃如下表 4-1 所示：

表 4-1 2011 年環境用藥技術應用研討會議程

時間	內容	
08:30-09:00	報到	
09:00-09:10	貴賓開幕致詞 主持人：林建輝處長(行政院環境保護署毒管處)	
專題演講	講題	主講人及引言人
09:10-09:50	演講 1 環境用藥管理現況與展望	引言人：徐爾烈 主講人：鄭春菊科長 行政院環境保護署
09:50-10:30	演講 2 小黑蚊生態與防治	引言人：王正雄 主講人：唐立正 中興大學 昆蟲系

時間	內容	
10:30-10:40	茶敘	
10:40-11:20	演講 3 環境衛生用藥 噴灑機具及應用	引言人：張念台 主講人：夏維泰 疾病管制局 副研究員
11:20-12:00	演講 4 登革熱之化學防治要領	引言人：張念台 主講人：劉碧隆 鳳山衛生所所長
12:00-13:30	午餐	
13:30-14:10	演講 5 環境衛生用藥產業臺灣製 MIT 微笑產品驗證制度	引言人：徐爾烈 主講人：蕭亞玲 工業局 專員
14:10-14:50	演講 6 不同劑型防治入侵 紅火蟻成效評估	引言人：吳懷慧 主講人：黃基森 臺北市立教育大學地球環境暨生物 資源學系
14:50-15:00	茶敘	
15:00-15:40	演講 7 忌避劑之種類及使用	引言人：羅怡珮 主講人：徐爾烈 台灣大學 昆蟲系
15:40-16:20	演講 8 病媒蚊幼蟲之綜合防治	引言人：羅怡珮 主講人：白秀華 高雄大學 運動健康與休閒學系
16:20-16:50	綜合討論	
16:50-17:00	閉幕	

授課情形如圖 4-3：





圖 4-3 環境用藥技術應用研討會授課情形

4.2 研討會預計達成目標

環境用藥技術應用研討會主要為提昇國內業界環境用藥專業知識及實務技術為旨，會中邀請學者專家分享在環境用藥管理及病媒防治上的專業及實務經驗。

為提升環境用藥後續年度的研討會深度，預計於會後請與會來賓，進行問卷滿意度問卷調查，期望藉由問卷的調查、建議的事項來最為往後環境用藥研討會修正的方向之參考依據。

問卷方向初步規劃如下：

- 一、場地及研討會整體滿意度
- 二、環境用藥管理及病媒防治專業性
- 三、針對研討會所提出建議及改善事項

問卷規劃內容如圖 4-4。

2011 環境用藥技術應用研討會調查問卷

非常感謝您參與『環境用藥技術應用研討會』：

本問卷內容主要是希望透過問卷來瞭解您對於本研討會中所規劃之演講內容和意見，以及研討會中所有相關安排的滿意度；我們將彙整各位與會人員的寶貴意見，並進行檢討與省思的工作，藉以提昇未來再次舉辦此類型的學術活動時，能夠更加詳盡地妥善規劃。

您的幾分鐘幫忙，是幫助我們改進本研討會未盡完善之處的重點，在此衷心感謝您的合作與協助。

1.請問您的身份是下列那一種？

- ☐ 教授
- ☐ 學生
- ☐ 業界人士
- ☐ 其他

2.您認為研討會是否達成原訂的目標設計？

- *具有教育的功能。。。。。。☐完全達到☐部分達到☐幾乎未達到☐完全未達到
- *具有交流的功能。。。。。。☐完全達到☐部分達到☐幾乎未達到☐完全未達到
- *提昇業界的技術的資訊。。。。☐完全達到☐部分達到☐幾乎未達到☐完全未達到

3.您認為研討會的內容對您是否有幫助？

- *資料及資訊的取得。。。。。。☐很有幫助☐有幫助☐稍有幫助☐尚無幫助
- *認識相關領域之交流與整合現況。。。。☐很有幫助☐有幫助☐稍有幫助☐尚無幫助
- *提供國內外最新法令資訊。。。。。。☐很有幫助☐有幫助☐稍有幫助☐尚無幫助

4.您對於本研討會中的服務工作是否滿意？

- *報到與動線設計。。。。。。☐很滿意 ☐滿意 ☐稍為滿意 ☐不滿意
- *場地安排。。。。。。☐很滿意 ☐滿意 ☐稍為滿意 ☐不滿意
- *資料文件。。。。。。☐很滿意 ☐滿意 ☐稍為滿意 ☐不滿意
- *茶點供應。。。。。。☐很滿意 ☐滿意 ☐稍為滿意 ☐不滿意

5.整體而言，您會給予本次研討會的評價為？

- ☐很滿意
- ☐滿意
- ☐稍為滿意
- ☐不滿意

6.其他針對研討會的寶貴意見：

～感謝您提供的寶貴資訊～

圖 4-4 環境用藥技術應用研討會問卷內容

問卷內容分析：

本次環境用藥技術應用研討會共計 123 人與會，針對與會人員進行分析，其中教授為 6%，業界人士為 79%，其他為 15%。

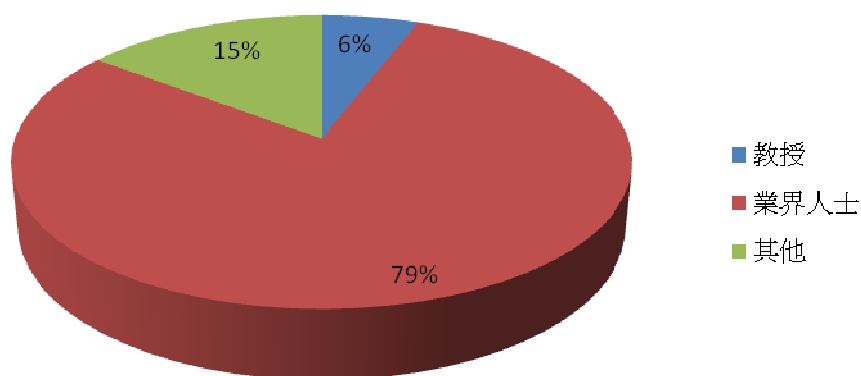


圖 4-5 環境用藥技術應用研討會與會人員身分分析

本次研討會問卷調查有效問卷約為 70 份，針對當日研討會主題內容與服務動線場地安排，滿意度為 34%很滿意、63%為滿意、3%為稍微滿意。

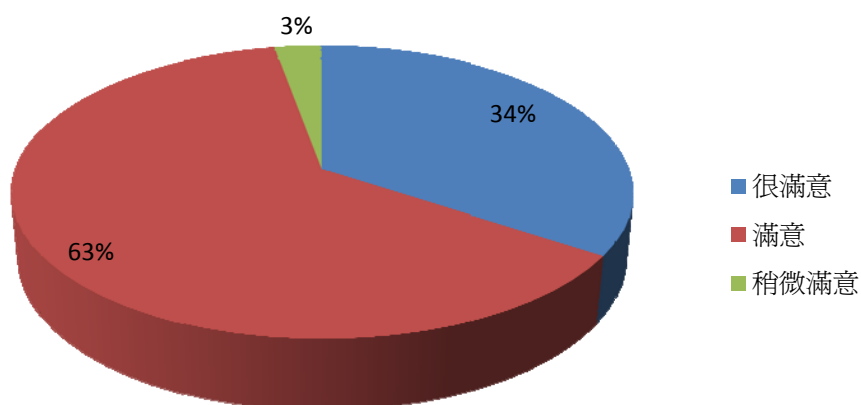


圖 4-6 環境用藥技術應用研討會整體滿意度

歸納問卷與會人員所提出意見，如下：

- 一、建議研討會可定期辦理，可提升業者技術及服務品質，避免業界低價惡性競爭，亦可達到產官學研互相交流。
- 二、研討會議題內容豐富，建議主講時間可拉長，以更豐富主題內容。
- 三、目前研討會辦理地點皆於北部，可考慮在中部地區舉辦，地理位置較為中心。
- 四、主辦單位需要事先公告講題開放錄音或攝影狀況。
- 五、研討會可因應主題舉辦，如研討會主題內容與往年重覆，亦可 2 至 3 年舉辦一次，成果較為顯著。
- 六、目前研討會課程重複性較高，建議能有不同相關領域的講師來主講。

第五章 環境用藥藥效實驗室參訪

為建立國內環境用藥實驗室管理規範，於先期作業首先針對國內環境用藥藥效實驗室進行參訪，參訪作業將協同環境檢驗所及專家學者進行實驗室參訪，參訪行程規劃如下：

一、目的

環檢所於 90 年 3 月 8 日公告環境衛生用藥藥效測試通則，於 90 年 6 月 8 日起開始實施，本年度透過環境用藥藥效實驗室參訪作業，了解目前於環境用藥藥效檢測實驗室的操作流程及實驗室設備資源，於參訪過程中藉由專家學者及環檢所以及實驗室人員進行學術性、技術性的交流，並記錄各實驗室之參訪資料，提供給環保署作為未來制度參考依據。

二、主辦單位：行政院環境保護署環境衛生及毒物管理處。

三、協辦單位：環資國際有限公司

四、參訪人員

(一)署內承辦人員

(二)環檢所承辦人員

(二)專家學者

1.台灣大學昆蟲學系 徐爾烈教授

2.台灣大學昆蟲學系 黃榮南教授

五、行政作業

(一)參訪實驗室內容及餐點規劃

(二)參訪專家學者聯繫

(三)參訪過程接待學者專家及餐點安排

六、實驗室參訪作業

(一)國立高雄大學

1.校址：高雄市楠梓區高雄大學路 700 號

2.實驗室主持人：白秀華 教授

3.參訪日期：11 月 7 日

4.實驗室種類：環境用藥藥效實驗室

5.實驗室參訪照片



圖 5-1 國立高雄大學參訪作業紀錄照片

(二)國立屏東科技大學

1.校址：屏東縣內埔鄉老埤村學府路 1 號

2.實驗室主持人：張念台 教授

3.參訪日期：11 月 14 日

4.實驗室種類：環境用藥藥效實驗室

5.實驗室參訪照片



圖 5-2 國立屏東科技大學參訪作業紀錄照片

(三)國立中興大學

1.校址：台中市南區國光路 250 號

2.實驗室主持人：唐立正 副教授

3.參訪日期：11 月 14 日

4.實驗室種類：環境用藥藥效實驗室

5.實驗室參訪照片



圖 5-3 國立中興大學唐老師實驗室參訪作業紀錄照片

(四)國立中興大學

- 1.校址：台中市南區國光路 250 號
- 2.實驗室主持人：黃紹義 教授
- 3.參訪日期：11 月 14 日
- 4.實驗室種類：環境用藥藥效實驗室
- 5.實驗室參訪照片



圖 5-4 國立中興大學黃老師實驗室參訪作業紀錄照片

(五)國立嘉義大學

- 1.校址：嘉義市鹿寮里學府路 300 號
- 2.實驗室主持人：熊文俊 副教授
- 3.參訪日期：11 月 21 日
- 4.實驗室種類：水生生物毒理實驗室
- 5.實驗室參訪照片



圖 5-5 國立嘉義大學熊老師實驗室參訪作業紀錄照片

七、實驗室參訪會議記錄與建議

環境用藥藥效實驗室

(一)養蟲室

- 1.蚊蟲養殖室宜與實驗室分開，並有雙層紗門隔絕，避免飼養的蚊子溢出養蟲罐之外。
- 2.蟑螂飼養盒（箱）周圍宜加以清空，飼養飼料宜密封，避免引來其他環境有害生物（如老鼠、蟑螂等）

(二)生物藥效測驗室

- 1.藥效測試室應有獨立空間，不應與實驗室同一空間
- 2.此外養蟲室宜有固定之日夜（光照）週期及溫濕度控制。

(三)測試昆蟲觀察恢復室

無昆蟲恢復觀察室，設計可於實驗室中進行。

(四)藥劑配置室

- 1.廠商送檢藥劑應與實驗室其他化學品分開存放
- 2.送檢藥劑應放置於有抽氣裝置之櫥櫃。

(五)生物藥效測試室

- 1.實驗室建議應有抽氣設備及空調，避免密閉空間引起人員之危害。
- 2.生物藥效測試，宜選擇在室外空曠之地區進行，尤其以噴灑爲主之藥效試驗。

水生生物毒理試驗實驗室

(一)試驗生物

各種魚種適合進行藥效試驗之大小(或重量、日齡)宜有明確規範。

(二)實驗設備：

- 1.建議以恆溫與光照溫度進行控制
- 2.飼養箱宜有清楚標示品名與飼養紀錄。
- 3.藥效試驗之結果判定依制定標準，除了死與活，活動力降低外，是否有其他外觀形態之改變或內在生理、生化指標，可做為判定實驗藥劑毒性之依據。

(三)試劑

不同魚種或針對不同藥劑之實驗方法是否有不同，宜建立標準操作程序為規範。試驗魚種也應有標準飼料方法之建立以統一。

八、參訪達成效益與成果

目前國內環境用藥廠商於申請文件中需檢附之產品藥效檢測報告，主要由國內學術機關附屬之實驗室協助廠商進行檢測，實驗室參考實驗規範大多採環檢所於 90 年制定環境用藥藥效測試通則。

本年度首先參訪國內五間環境用藥藥效實驗室，了解目前國內實驗室之規模及實驗技術，同時參訪作業亦聘請兩位學者專家提出目前國內藥效實驗室現況建議，目前經由學者專家提出共計八大項建議，以利環保署提供相關資料於環檢所針對通則進行修正，進而完善我國藥效試驗室品保品管制度。

第六章 其他協助、支援及相關事項

6.1 環境用藥查核成果年度記者會

環保署每年例行進行市售環境用藥抽驗查核，為確保民眾選購合法安全有效之環境用藥，防止來路不明的環境用藥流竄，各地方環保機關都會針對超商、雜貨店、藥局、量販店、10 元商店、花市、市場等環境用藥販賣場所不定期進行標示查核及成分含量抽驗。今年度共查核 3 萬 3,525 件環境用藥，其中查獲標示不合格 451 件，以不合格過期居多；抽驗有效成分 166 件。查核結果於 100 年 2 月 22 日召開記者會，邀請國內媒體進行查核成果採訪。

本團隊協助進行環境用藥查核成果看版設計及場地佈置，其過程如圖 6-1 所示：



圖 6-1 環境用藥查核成果年度記者會

6.2 口服急毒性 OECD 420 附件翻譯

完成 OECD 420(口服急毒性)附件翻譯如下，原文如附件二十一所示：

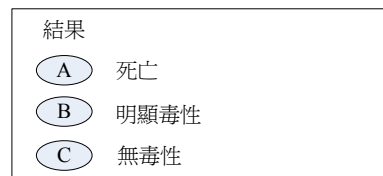
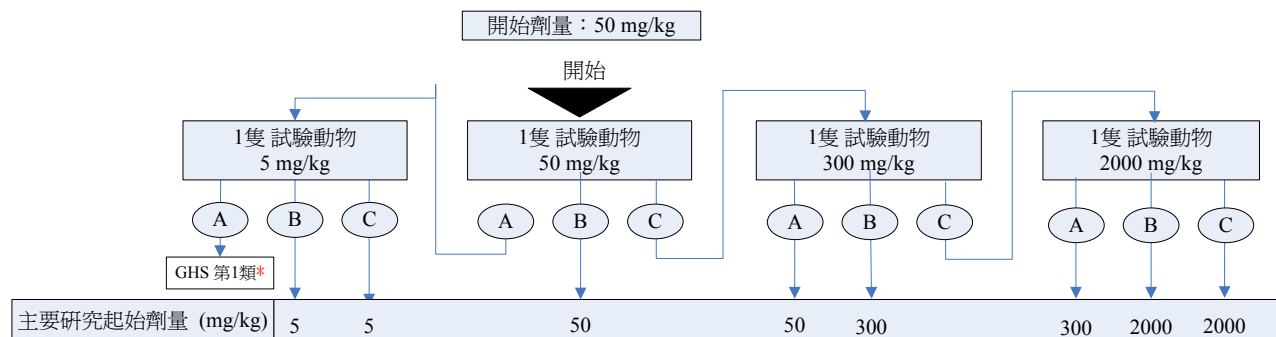
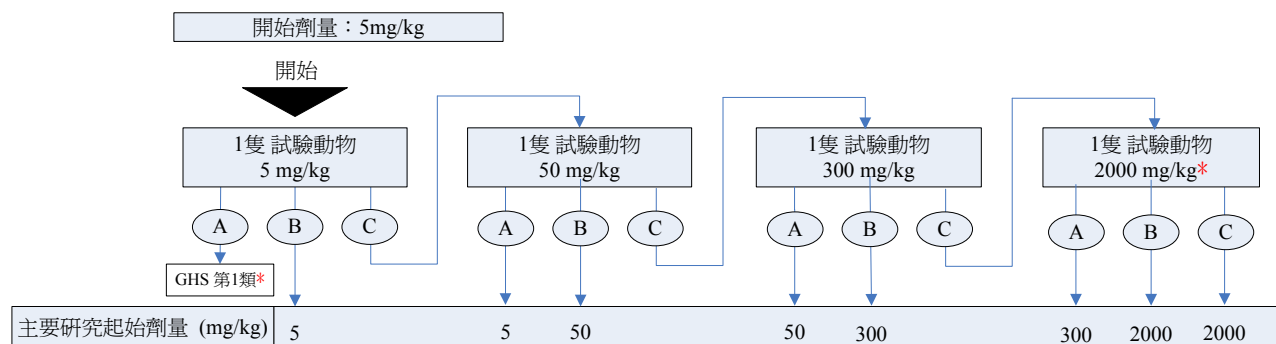
定義

- 口服急毒性(Acute oral toxicity)：在 24 個小時內經由口服單一劑量物質或多種劑量所發生的不良影響(adverse effects)。
- 延遲性死亡(Delayed death)：動物在 48 個小時內沒有死亡或顯示瀕死現象，但在 14 天的觀察期間時死亡。
- 劑量(Dose)：試驗物質使用的總量。劑量以每單位試驗動物體重含有的試驗物質重量表示(如 mg/kg)。
- 明顯毒性(Evident toxicity)：描述在利用試驗物質後顯示清楚的毒性跡象 (見 Van den Heuvel, M.J., Clark, D.G., Fielder, R.J., Koundakjian, P.P., Oliver, G.J.A., Pelling, D., Tomlinson, N.J. and Walker, A.P. (1990). The international validation of a fixed-dose procedure as an alternative to the classical LD50 test. *Fd. Chem. Toxicol.* 28, 469-482. (3))，因此可以預期在下一個最高的固定劑量會產生嚴重疼痛和忍受嚴重痛苦的跡象，瀕死狀態(moribund status)(標準列於 Humane Endpoint Guidance Document (8))或很可能死亡。
- GHS：化學品全球調和制度 (Globally Harmonised Classification System for Chemical Substances and Mixtures, GHS)。聯合經濟合作暨發展組織 OECD(人體健康及環境)、聯合國危險物品運輸專家委員會(物理化學性質)、國際勞工組織(危害通識(hazard communication)) 共同合作，並由組織間有效管理化學品計畫 (Inter-Organization Programme for the Sound Management of Chemicals, IOMC)統籌協調。
- 即將死亡(Impending death)：預期在下一次觀察時間前會有瀕死狀態(moribund status)或死亡。老鼠表現出這種跡象包括痙攣，側臥姿勢，躺著和震顫。(更多細節見 Humane Endpoint Guidance Document (8))。
- LD₅₀(半數致死口服劑量)：由統計得到的單一物質劑量經由口服路徑時能引起 50% 動物死亡。LD₅₀ 數值表示成每單位試驗動物體重含有的試驗物質重量表示(如

mg/kg)。

- 劑量限值(Limit dose)：試驗中劑量的最高限制 (2000 或 5000mg/kg)。
- 瀕死狀態(Moribund status)：處在即使被處理(treated)也是垂死或無法生存的狀態。(更多細節見 Humane Endpoint Guidance Document (8))。
- 預測死亡(Predictable death)：在計畫的實驗時間結束前，表現出死亡的臨床跡象，例如無行為能力可取得水或食物。(更多細節見 Humane Endpoint Guidance Document (8))。

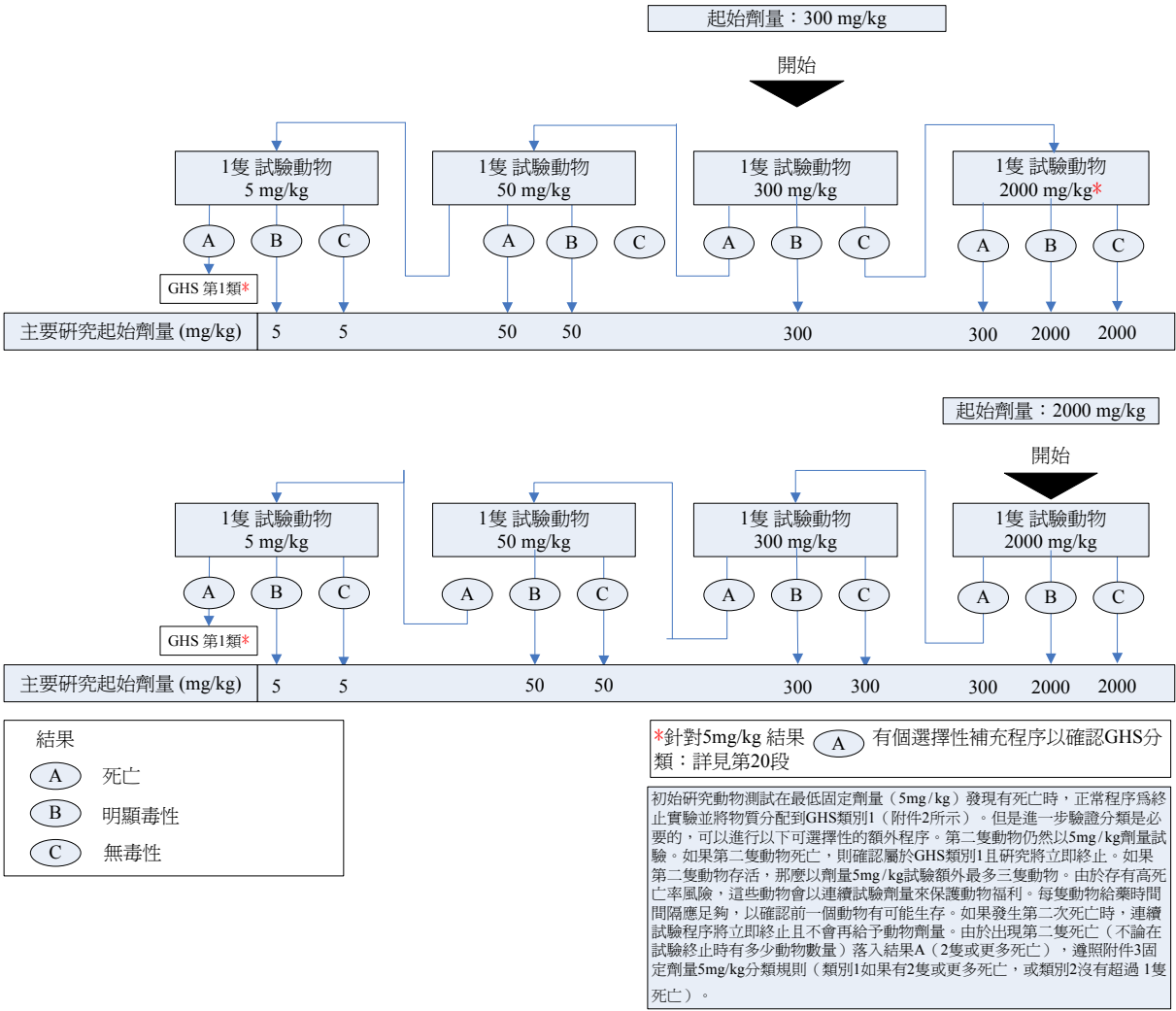
附件2：FLOW CHART FOR THE SIGHTING STUDYT



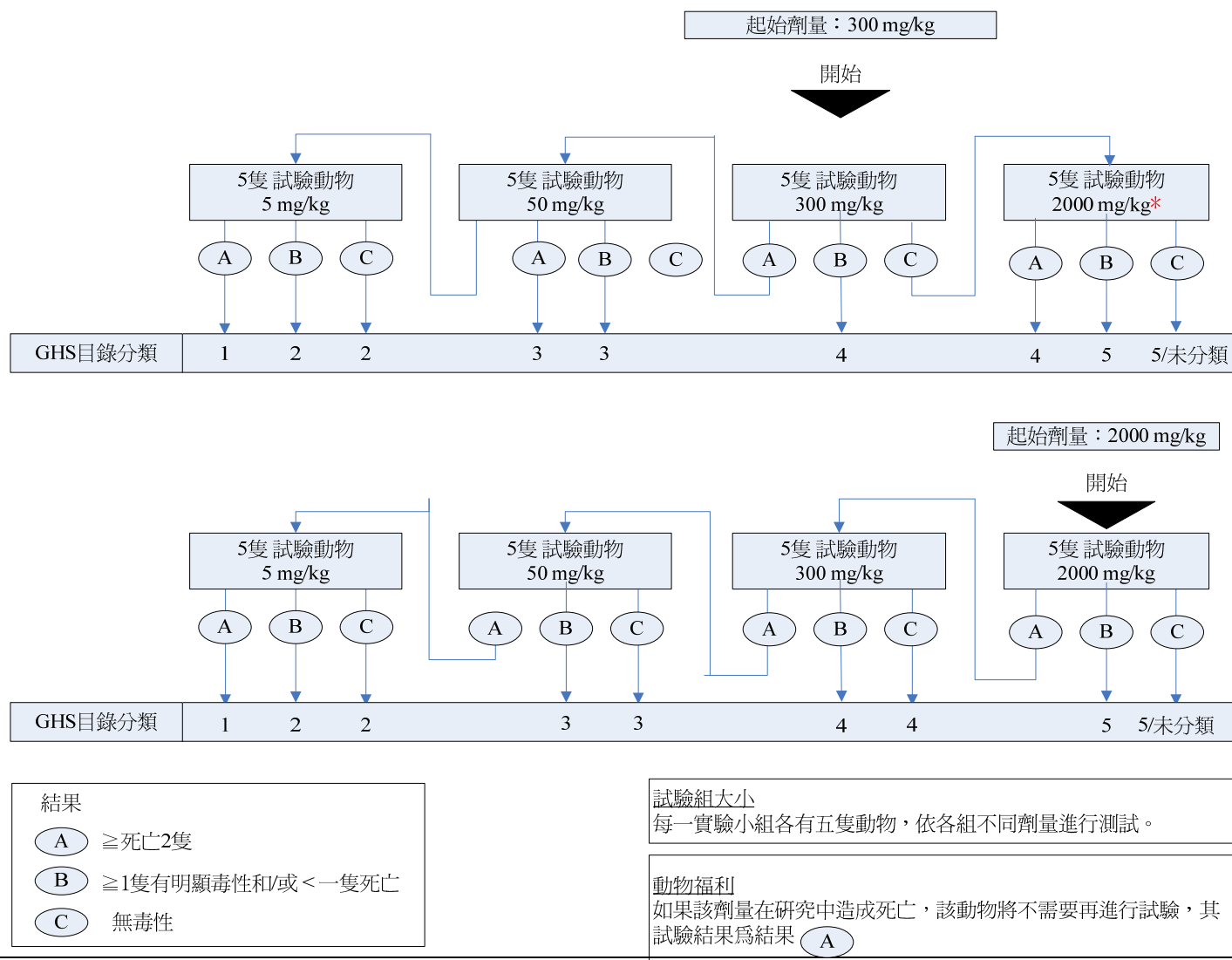
*針對5mg/kg 結果 (A) 有個選擇性補充程序以確認GHS分類：詳見第20段

初始研究動物測試在最低固定劑量（5mg/kg）發現有死亡時，正常程序為終止實驗並將物質分配到GHS類別1（附件2所示）。但是進一步驗證分類是必要的，可以進行以下可選擇性的額外程序。第二隻動物仍然以5mg/kg劑量試驗。如果第二隻動物死亡，則確認屬於GHS類別1且研究將立即終止。如果第二隻動物存活，那麼以劑量5mg/kg試驗額外最多三隻動物。由於存有高死亡率風險，這些動物會以連續試驗劑量來保護動物福利。每隻動物給藥時間間隔應足夠，以確認前一個動物有可能生存。如果發生第二次死亡時，連續試驗程序將立即終止且不會再給予動物劑量。由於出現第二隻死亡（不論在試驗終止時有多少動物數量）落入結果A（2隻或更多死亡），遵照附件3固定劑量5mg/kg分類規則（類別1如果有2隻或更多死亡，或類別2沒有超過 1隻死亡）。

附件2：FLOW CHART FOR THE SIGHTING STUDYT



附件3：FLOW CHART FOR THE SIGHTING STUDY



一、分類試驗物質 LD50 預期超過 2000mg/kg 則沒有測試的需要

1. 毒性分類 5(hazard Category 5)的標準為鑑定試驗物質有相對低的急性毒性危害，但在某些情況下對易受傷(vulnerable)族群可能造成危險。這些物質被預期口服或皮膚的 LD50 範圍在 2000-5000 mg/kg，或其他路徑含有相等劑量。試驗物質在下列情況裡可能在危害種類中被分類為：2000 mg/kg<LD50<5000 mg/kg (GHS 分類 5)：

- (a)由附件 3 中任何測試方案指向此種類，依據死亡發生率；
- (b)由已得到可靠的證據表示 LD50 在種類 5 的數值範圍內；或其他動物研究或在人體毒性效應顯示對人體健康具急性效應影響；
- (c)透過推斷、估計或測量數據，無法判斷要分至哪一個種類
 - 可信賴的訊息表示對人體產生明顯毒性效應，
 - 當以口服路徑測試到種類 4 數值時，觀察到死亡率發生，
 - 測試到種類 4 數值時，專家判斷確認有明顯臨床毒性跡象，除了出現腹瀉、毛髮直立或未加修飾的；
 - 專家判斷確認可靠訊息表示從其它動物研究結果顯示有明顯急性效應的潛能。

二、測試劑量超過 2000 mg/kg

2.以特別法規證明需要性，才可以考慮使用最高固定劑量 5000 mg/kg。為保護動物福利的需要性，否則不鼓勵測試 5000 mg/kg，並且只有在試驗結果和保護動物或人體健康有直接的關聯性才考慮進行試驗。

(一)初始研究 (Sighting Study)

3.附件 2 連續程序的決策規則延伸到包含 5000 mg/kg 劑量水平。因此初始研究以劑量 5000 mg/kg 開始，則結果 A(死亡)需要第 2 動物以 2000 mg/kg 試驗；結果 B 和 C(明顯毒性或沒有毒性) 允許選擇 5000 mg/kg 作為主要研究的開始劑量。與此類似如果開始劑量為 5000 mg/kg 以外的劑量，以 2000 mg/kg 試驗的結果 B 和 C 需進行 5000 mg/kg 試驗；隨後的 5000 mg/kg 結果 A 規定

主要研究開始劑量為 2000 mg/kg，結果 B 和 C 規定主要研究開始劑量為 5000 mg/kg

(二)主要研究 (Main Study)

4.附件 3 連續程序的決策規則延伸到包含 5000 mg/kg 劑量水平。因此當主要研究使用開始劑量為 5000 mg/kg，結果 A(≥ 2 死亡) 需要第 2 組測試 2000 mg/kg；結果 B(明顯毒性和/或 ≤ 1 死亡) 或 C(沒有毒性)將導致這個物質依據 GHS 無法分類。

與此類似如果開始劑量為 5000 mg/kg 以外的劑量，以 2000mg/kg 試驗的結果 C 需進行 5000 mg/kg 試驗；隨後的 5000 mg/kg 結果 A 會將這個物質分類到 GHS 分類 5，

結果 B 或 C 將導致這個物質無法分類。

6.3 微生物製劑黑殭菌資料收集

收集黑殭菌相關文獻，Journal Title Journal of economic entomology (USA) ISSN 0022-0493 Vol. No. v. 90(2) p. 473-482，作者為Kaakeh, W. (Purdue University, West Lafayette, IN.); Reid, B.L.; Bohnert, T.J.; Bennett, G.W.。論文名稱是：Toxicity of imidacloprid in the German cockroach (Dictyoptera: Blattellidae), and the synergism between imidacloprid and *Metarhizium anisopliae* (Imperfect Fungi: Hyphomycetes)。

文獻中主要是探討益達胺對德國蟑螂的毒性試驗，還有益達胺與黑殭菌之間的協同作用。摘要中提到當蟑螂接觸黑殭菌孢子懸浮液後餵食益達胺比僅單獨餵食益達胺能較快速死亡，此兩種方式反應能顯著快速殺死蟑螂。代表益達胺誘餌與黑殭菌間的可能具有協同作用(也就是大於預期的致死率)，蟑螂的死亡率依局部接種黑殭菌懸浮液有明顯的增加。

(網站相關連結如下：

<http://agris.fao.org/agris-search/search/display.do?f=1998%2FUS%2FUS98058.xml%3BUS1997049309>)

於 1993 年 5 月 12 日，美國環保署首次登記註冊黑殭菌產品名稱爲 Bio-Path Cockroach Control Chamber，其產品有效成分即爲黑殭菌 0.35%(*表示最少含有 1×10^4 CFUs per chamber)，防治對象爲蟑螂。美國環保署登記下載資料如圖 6-2 所示：

Household Use Directions

The chambers should be placed anywhere that roaches occur in kitchens, bathrooms, bedrooms, utility rooms, laundry rooms, basements, recreational vehicles, and boats.

1. Do not open pouch until ready to use.
2. Cut pouch open. Remove from pouch and separate individual chambers by working back and forth along perforations.
3. Place all 12 chambers in areas where cockroaches are present. (see illustration) For smaller kitchens (less than 8 feet by 12 feet) use at least 10 chambers and a minimum of 2 per bathroom. For heavy infestations, 24 chambers per 8 foot by 12 foot room may be required. Place chambers under sinks, along side of refrigerators, shelves, near plumbing fixtures. Do not place under radiators, baseboard heating elements, or other sources of heat. For larger kitchens or areas of heavy infestation additional chambers are recommended. For best results place chambers next to walls and in cabinets. Chambers should be replaced every 2 to 3 months to maximize performance. Do not exceed a rate of more than one chamber per 4 square feet.

HAZARDS TO DOMESTIC ANIMALS

The safety of this product has not been evaluated on cold blooded animals.

For Use in Residential, Commercial, Industrial and Institutional Areas

Bio-Path™ Cockroach Control Chambers may be used to kill roaches in residential establishments, apartments, stores (except pet stores), offices, industrial buildings, commercial establishments including food service, food manufacturing and food processing facilities. Bio-Path™ Cockroach Control Chambers can also be used inside computer and electronic equipment facilities, greenhouses, schools, buses, trucks, aircraft, railcars, ships and vessels.

1. Do not open pouch until ready to use.
2. Cut open pouch. Remove chambers from pouch and separate individual chambers by working back and forth along perforations.
3. Place chambers in locations where roaches have been seen and where they hide. Roaches are known to infest dark, warm, damp locations. Use 10-12 chambers per 96 square feet of surface area to be treated. For best results place chamber next to walls and in cabinets. Do not place under radiators, baseboard heating elements, or other sources of heat. Chambers should be replaced every 2 to 3 months to maximize performance.

HAZARDS TO DOMESTIC ANIMALS

The safety of this product has not been evaluated on cold blooded animals.

preapproved
May 10, 1993

圖 6-2 美國環保署登記 Bio-Path Cockroach Chamber 產品資料

6.4 協助辦理增列微生物製劑公聽會

環保署於本年度 4 月 18 號辦理「新增列管圓形芽孢桿菌(*Bacillus sphaericus*)、白殭菌(*Beauveria bassiana*)、黑殭菌(*Metarhizium anisopliae*)應用於防制環境衛生病媒之微生物製劑」公聽會。

本計畫於去年計畫時程內收集分析美國環保署所註冊使用在防治居家害蟲的微生物製劑，分析並收集圓形芽孢桿菌(*Bacillus sphaericus*)、白殭菌(*Beauveria bassiana*)、黑殭菌(*Metarhizium anisopliae*)等菌種資料，並於今年度辦理公聽會時協助會議記錄及其餘行政事宜。當日公聽會情形如下：



圖 6-3 微生物製劑公聽會辦理情形

6.5 歐盟對二氯苯、蔡之限用禁用狀況

對二氯苯(1,4-Dichlorobenze, 1,4-DCB)爲一種廣泛用於除臭和消除霉菌的燻煙劑，2010 年 6 月公佈 SOCIO-ECONOMIC EVALUATION ARISING FROM A PROPOSAL FOR RISK REDUCTION MEASURES RELATED TO RESTRICTIONS ON 1,4-DICHLOROBENZENE 之調查報告(由歐盟下轄之 Directorate-General Enterprise and Industry 出版)，內容建議禁止銷售以對二氯苯爲基礎的家用清潔用品，如空氣清淨劑及廁所芳香劑，並建議在 12~24 個月的期間內頒布針對對二氯苯逐步淘汰的禁令。查詢歐盟環境用藥的註冊期限(對二氯苯之 UC Number 爲 203-400-5)，對二氯苯已於 2010 年到期，並至今年 8 月 28 日尚未註冊。

此外，經查詢於此時刻重新登記時，瑞典是尚且是唯一針對對二氯苯在使用上進行禁止使用的歐盟國家(1990 年發佈)；而斯洛伐克則是進行總量上的管理，包括從購買、運輸、包裝、濃度、營銷等，都要進行明確的標示(2006 年發佈)；其餘各國皆無任何限制。因此，依據歐盟運作規範，其餘各國應將於今年至明年期間，將會逐步提出禁用規範。

6.6 美國微生物製劑汙染環境處理方式

美國如遇 Pesticide 事件涉及到環境(野生動物、空氣、土壤或水)汙染時，需聯繫國家環境機構，即致電至國家 Pesticide 信息中心(National Pesticide Information Center; NPIC)，NPIC 將進一步向美國環保署報備此事件，且將有 Pesticide 專家提供有用的事件與信息參考。除此之外，針對事件之產品製造商將依法提交負面影響報告給美國環保署，而其相關罰則於 FIFRA 中規範，如下所示。

SEC. 13. o7 U.S.C. 136k 停止販賣、使用、移除與查扣沒入

- (a)停止販賣等命令：任何除害劑或設備被署長或於檢驗發現違反本法，或已經、預計違反本法進行販賣，或已被取消或停止適用之註冊除害劑，署長將發布或列印”停止販賣、使用或移除”的命令給觸犯以上之除害劑或設備擁有者，收到該命令者除了按照條款規定，一律嚴禁販賣、使用或移除除害劑或設備。
- (b)查扣沒入：任何除害劑或設備如果具下列情形，應被沒入或譴責之當地地方法院起訴，且地方法院得禁止該物質有關之運送、儲存、販賣、輸入等運作行為
- (3)當除害劑或設備根據本法規定之標示使用，卻導致環境負面影響。

SEC. 14. o7 U.S.C. 136l 罰則

(a)民事罰則

- (1)總則：任何註冊者、商業行為、批發商、經銷商、零售商或其他服務商違反本法之任何規定，其各項罪狀經署長評估處美金 5,000 元(約台幣 149,325 元)以下罰鍰。
- (2)個人行為：前提(1)總則外之任何個人行為或人民違反本法任何規定而收到警告信件或傳票時，其各項罪狀經署長評估可能處美金 1,000 元(約台幣 29,865 元)以下罰鍰。除了任何行為外，只提供害蟲控制服務而無運送任何除害劑服務的民衆，若違反本法任何規定，經署長評估初犯處美金 500 元(約台幣 14,933 元)以下罰鍰，再犯者處美金 1,000 元(約台幣 29,865 元)以下罰鍰。

上述資料之原文如下所示。

Reporting an Environmental Incident (wildlife, air, soil or water):

1. If a pesticide incident has occurred involving wildlife, air, soil or water, contact your State Environmental Agency to report the problem.
2. Next, call the National Pesticide Information Center (NPIC) at 1-800-858-7378 to report the incident. NPIC provides these reports to the EPA under a cooperative agreement. Trained pesticide specialists are available to document the incident and provide information that could be helpful in your unique situation.
3. Also, consider reporting the incident to the product's manufacturer. Manufacturers are required by law to submit reports of adverse effects to the US EPA.

FIFRA(Federal Insecticide, Fungicide and Rodenticide Act)

SEC. 13. 67 U.S.C. 136k STOP SALE, USE, REMOVAL, AND SEIZURE.

(a) STOP SALE, ETC., ORDERS.—Whenever any pesticide or device is found by the Administrator in any State and there is reason to believe on the basis of inspection or tests that such pesticide or device is in violation of any of the provisions of this Act, or that such pesticide or device has been or is intended to be distributed or sold in violation of any such provisions, or when the registration of the pesticide has been canceled by a final order or has been suspended, the Administrator may issue a written or printed “stop sale, use, or removal” order to any person who owns, controls, or has custody of such pesticide or device, and after receipt of such order no person shall sell, use, or remove the pesticide or device described in the order except in accordance with the provisions of the order.

(b) SEIZURE.—Any pesticide or device that is being transported or, having been transported, remains unsold or in original unbroken packages, or that is sold or offered for sale in any State, or that is imported from a foreign country, shall be liable to be proceeded against in any district court in the district where it is found and seized for confiscation by a process in rem for condemnation if—

- (3) in the case of a pesticide or device, when used in accordance with the requirements imposed under this Act and as directed by the labeling, it nevertheless causes unreasonable adverse effects on the environment.

SEC. 14. o7 U.S.C. 136l PENALTIES.

(a) CIVIL PENALTIES.—

(1) IN GENERAL.—Any registrant, commercial applicator, wholesaler, dealer, retailer, or other distributor who violates any provision of this Act may be assessed a civil penalty by the Administrator of not more than \$5,000 for each offense.

(2) PRIVATE APPLICATOR.—Any private applicator or other person not included in paragraph (1) who violates any provision of this Act subsequent to receiving a written warning from the Administrator or following a citation for a prior violation, may be assessed a civil penalty by the Administrator of not more than \$1,000 for each offense, except that any applicator not included under paragraph (1) of this subsection who holds or applies registered pesticides, or uses dilutions of registered pesticides, only to provide a service of controlling pests without delivering any unapplied pesticide to any person so served, and who violates any provision of this Act may be assessed a civil penalty by the Administrator of not more than \$500 for the first offense nor more than \$1,000 for each subsequent offense.

資料來源：

1. 國家除害劑信息中心 (National Pesticide Information Center; NPIC) :
<http://npic.orst.edu/reportprob.html#env>
2. 聯邦殺蟲劑、殺菌劑及殺鼠劑管理法 (FIFRA) :
<http://www.epa.gov/agriculture/lfra.html#Summary> of the Federal Insecticide, Fungicide, and Rodenticide Act

6.7 環境用藥安全使用性別研究調查問卷

本計畫針對環境用藥安全使用性別研究進行問卷調查，問卷內容設計以環境用藥購賣產品劑型與使用方式等衍生問題，進行性別差異度探討，問卷設計如圖 6-4 所示，而其規劃至受訪相關內容及調查評估如下所述：

環境用藥安全使用性別研究調查問卷	
為配合行政院環境保護署進行「環境用藥安全使用性別研究」，針對 <u>環境用藥使用者</u> 就下列問卷將以針對環境用藥使用方式、頻率等衍生問題，進行性別差異度探討，本問卷內容皆採用不記名方式進行，敬請放心作答。	
1. 您的國別為 ☐ 本國人士 ☐ 外籍人士	
2. 目前婚姻狀況 ☐ 已婚 ☐ 未婚	
3. 您是否有子女 ☐ 有 ☐ 無	
4. 您的年齡為 ☐ 20-25 歲 ☐ 26-30 歲 ☐ 31-35 歲 ☐ 36-40 歲 ☐ 41-45 歲 ☐ 46-50 歲 ☐ 51-60 歲 ☐ 60 歲以上	
5. 目前居住地區 ☐ 北部地區 ☐ 中部地區 ☐ 南部地區 ☐ 東部地區 ☐ 外島	
6. 居住的區域為 ☐ 住宅區(郊區) ☐ 住宅區(都會區) ☐ 商業區 ☐ 工業區	
7. 您目前居住環境為 ☐ 公寓 ☐ 華廈 ☐ 平房 ☐ 別墅	
8. 您目前倚賴的交通工具為 ☐ 汽車 ☐ 機車 ☐ 腳踏車 ☐ 大眾運輸工具	
9. 您工作的類別	
☐ 農、林、漁、牧業	
☐ 製造/傳統產業	
☐ 營造及不動產相關業	
☐ 住宿及餐飲業/文化/運動/休閒	
☐ 生技美容業/資訊/科技業	
☐ 批發/零售/傳直銷業	
☐ 金融/投顧/保險業/法律/工商服務	
☐ 傳媒/出版/藝術業/政府/公共行政業	
☐ 教育服務業	
☐ 醫藥保健/環境衛生業	
☐ 家庭主婦	
☐ 其他服務業_____	
10. 您的最高學歷為 ☐ 高中(含專科) ☐ 大學 ☐ 碩士 ☐ 博士	
11. 目前工作收入 ☐ 20,000 元以下 ☐ 20,001 元~35,000 元 ☐ 35,001 元~50,000 元 ☐ 50,001 元~65,000 元 ☐ 65,001 元~80,000 元 ☐ 80,001 元以上	

12. 在日常生活中是否因環境蟲害需求而使用過環境用藥(環境用藥為日常生活中所使用之殺蟲劑、蚊香、電蚊香、殺鼠劑等)
☐是 ☐否, 若填否感謝您參與此問卷, 後續問題將不需再填寫。

13. 您家中最常見害蟲 ☐蒼蠅 ☐蚊子 ☐蟑螂 ☐跳蚤 ☐螞蟥 ☐老鼠

14. 家中是否有飼養寵物 ☐有 ☐無

15. 如遇家中出現害蟲尋求解決的管道為 ☐自行使用殺蟲劑 ☐請專業人士進行居家害蟲清除

16. 您使用的環境用藥其購買地點為 ☐量販店、大賣場 ☐超級市場
☐網路拍賣 ☐巷口雜貨店 ☐藥局 ☐其他_____

17. 您家中所使用環境用藥每年所花費金額為 ☐無 ☐500 元以下 ☐500 元~1000 元 ☐1000 元~1500 元 ☐1500 元~2000 元 ☐2000 元以上

18. 您購買環境用藥產品時是否有限定特殊的品牌愛好 ☐是 ☐否

19. 相同環境用藥功效的各種品牌中(如同樣為防治蟑螂), 就您所選擇該品牌的首要考慮因素為 ☐該品牌除防治蟑螂外, 仍具有其他防治功能(如跳蚤等)-多重防治效果 ☐該品牌包裝好看、順眼 ☐比較各品牌的防治效果選擇最佳者 ☐以價格來考量

20. 購買環境用藥產品時, 品牌資訊來自於 ☐網路廣告 ☐電視媒體 ☐報章雜誌 ☐口耳相傳 ☐於賣場中得知

21. 您在購買環境用藥產品時, 於產品包裝上是否會注意及確認該產品是否具有環保署所核發之環境用藥許可證及標示說明 ☐是 ☐否

22. 使用環境用藥產品時您是否會先閱讀該產品的使用方法說明書 ☐是 ☐否

23. 您使用環境用藥的習慣方法為 ☐依照產品使用方法說明書使用 ☐蚊蟲不死之前一直使用(如殺蟑劑、殺蚊劑) ☐依自我感受來使用環境用藥

24. 您所使用環境用藥的頻率為 ☐每天一次 ☐每週一次 ☐每月一次

25. 您使用環境用藥的範圍為(可複選) ☐客廳 ☐廚房 ☐房間 ☐庭院 ☐浴室 ☐其他_____

26. 您於日常生活中最常使用的環境用藥的類別為 ☐殺菌劑 ☐殺蟲劑 ☐殺鼠劑 ☐殺? 劑 ☐蚊香劑

27. 您最常使用的環境用藥產品劑型為(可複選) ☐噴霧劑 ☐蚊香 ☐電蚊香片 ☐液體電蚊香 ☐燻煙劑 ☐煙霧劑 ☐餌劑 ☐粉劑 ☐粒劑 ☐片劑 ☐塊劑 ☐液劑 ☐油劑 ☐糊狀劑

28. 針對環境用藥的使用或購買是否曾經上網找尋過相關資料 ☐是 ☐否

29. 如環境用藥辦理系列宣導網路活動是否考慮參與 ☐是 ☐否

30. 您希望於環保署環境用藥宣導網站上得到哪些相關的資料
☐如何使用各類環境用藥產品
☐如何正確購買環境用藥產品
☐如何降低使用環境用藥以達環境整潔

31. 您所居住的社區如有鄰里清潔活動您是否會一同參與 ☐是 ☐否

圖 6-4 環境用藥安全使用性別研究調查問卷

有效問卷共計 101 份

一、性別

男性 37 位、女性 64 位。

二、日常生活中是否因環境蟲害需求而使用過環境用藥

是 76%、否 24%。

三、平時家中所購買的環境用藥購買地點

量販店及大賣場 46%、超級市場 17%、網路拍賣 2%、巷口雜貨店及便利商店 23%、藥局 11%、其他 2%。

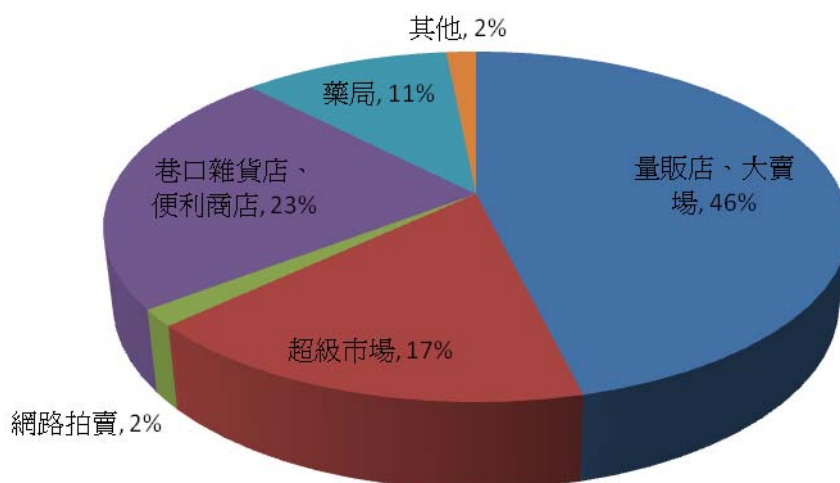


圖 6-5 環境用藥購買地點

四、購買環境用藥時會考慮哪些因素

品牌 44%、劑型 9%、價格 12%、防治對象 35%。

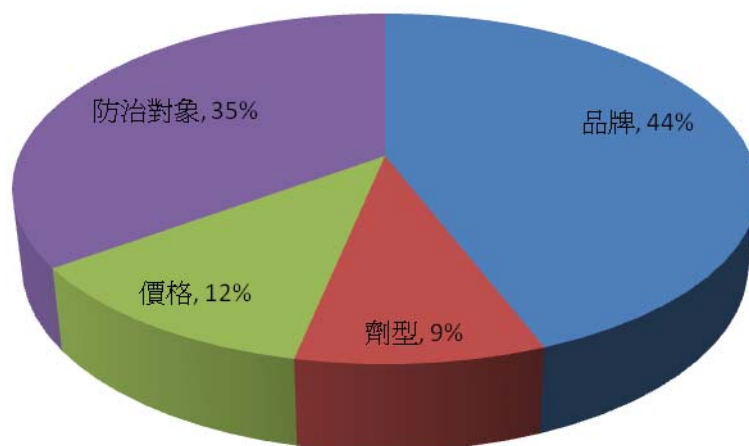


圖 6-6 品牌購買因素

五、選購產品針對防治對象選擇環境用藥產品會選擇

家中出現的害蟲 76%、防治對象最多的 24%。

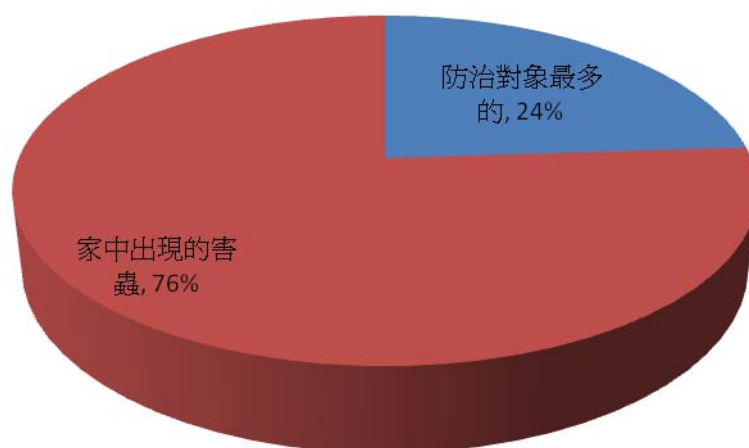


圖 6-7 產品防治對象

六、針對各種防治對象有不同劑型產品於市面販售，假設購買產品主要為殺蚊，您會選購下列哪種劑型產品

噴霧劑 34%、蚊香 23%、電蚊香片 16%、液體電蚊香 25%、煙霧劑 2%。

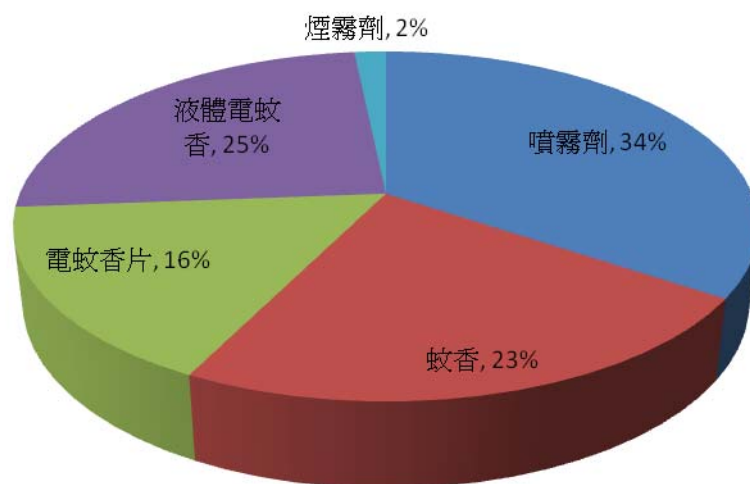


圖 6-8 最常使用之殺蚊產品劑型

七、呈上，選擇該劑型進行購買的原因為

習慣購買 17%、較無味道 25%、安全性高 27%、殺蟲率較好 13%、操作方式較為簡單 17%。

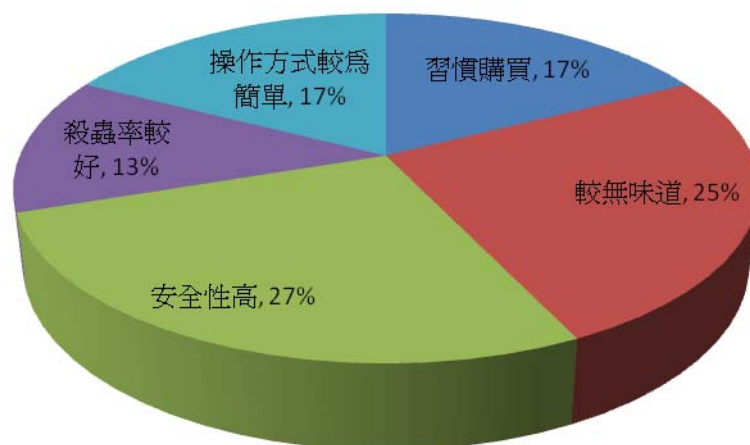


圖 6-9 殺蚊產品劑型購買因素

八、選定產品購買同時是否查看產品包裝上是否有環保署合格字號

是 69%、否 31%。

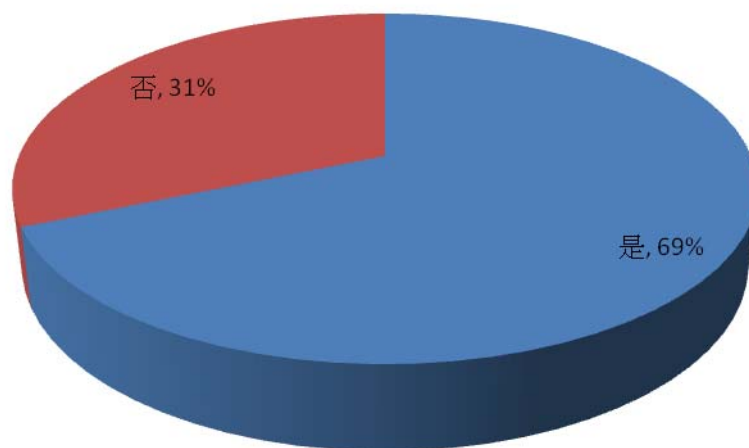


圖 6-10 購買產品是否注意具有核發證號

九、使用環境用藥時，是否會依產品上所登載的使用方式進行使用
是 88%、否 12%。

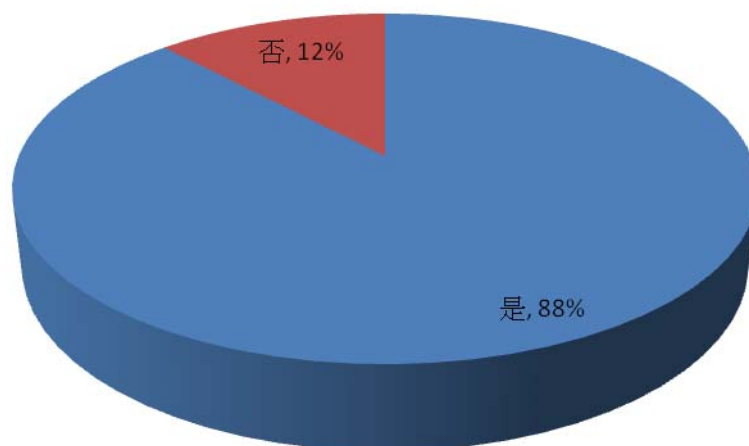


圖 6-11 使用產品會進行閱讀標示說明

十、針對環境用藥的使用或購買是否曾經上網找尋過相關資料
是 32%、否 68%。

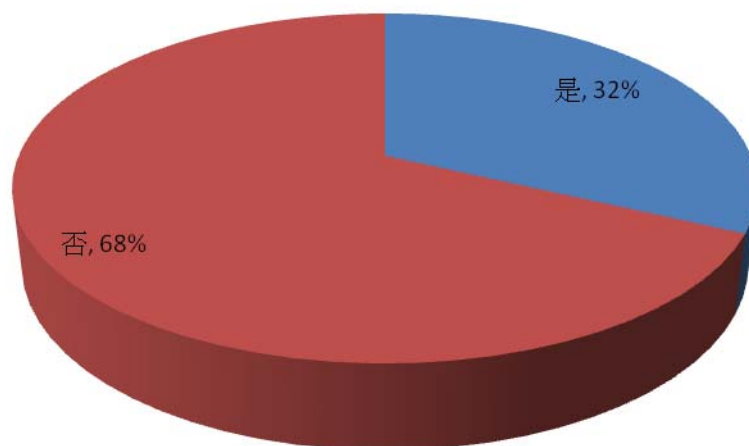


圖 6-12 使用或購買前會上網查詢相關資料

十一、如環境用藥辦理系列宣導網路活動是否考慮參與

是 35%、否 53%、不一定 12%。

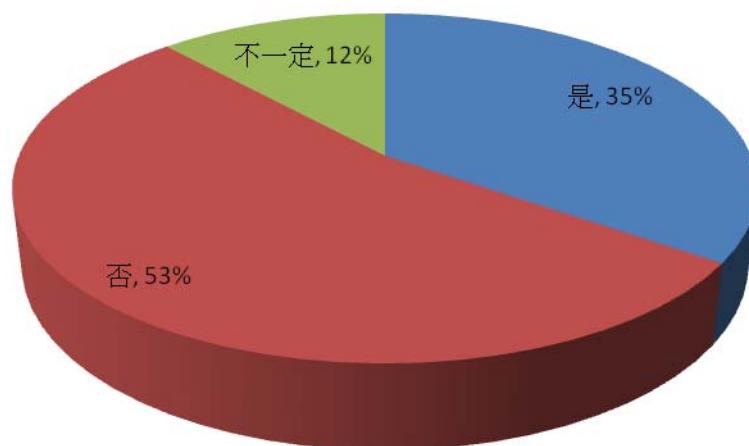


圖 6-13 參與網路宣導活動

十二、希望於環保署環境用藥宣導網站上得到哪些相關的資料

如何使用各類環境用藥產品 26%、如何正確購買環境用藥產品 29%、如何降低使用環境用藥以達環境整潔 46%。

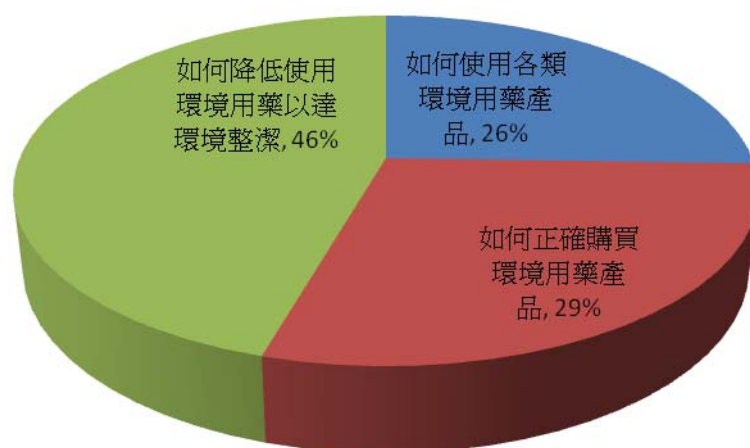


圖 6-14 希望於宣導網站獲得的資訊

十三、認同以清掃環境來代替噴灑環境用藥

是 94%、否 6%。

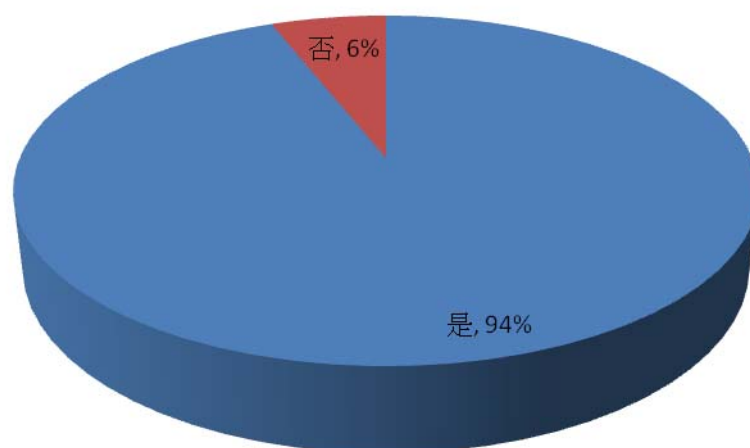


圖 6-15 認同以清掃環境代替噴灑環境用藥

此次問卷調查主要針對大台北之住宅區進行書面問卷街頭訪問，問卷經調查統計後，可大致分析數據資料如下：

以女性為主受訪皆為本國人士占 100%，於學歷分別落於國中以下為 14%、國中為 27%、高中含專科為 32%、大學為 24%、碩士為 3%。

由上述基本資料進而分析女性於環境用藥購買消費狀態，在購買產品大多選擇於量販店或大賣場為 46%、巷口雜貨店或便利商店為 23%、超級市場為 17%；購買時考慮的因素以品牌愛好 44%為主、考慮防治對象 35%為第二；購買產品針對家中出現害蟲所購買的高達 76%、考慮防治對象多的為 24%；假設主要購買殺蚊產品的主要為噴霧罐為 34%、液體電蚊香為 25%、蚊香為 23%；針對前述劑型購買的原因以 27%安全性高為首要選擇、較無味道 25%、習慣購買與操作方式較為簡單各為 17%，針對上述數據分析，於消費行為中受訪者於購買環境用藥產品時較傾向可殺死居家中出現的為主，針對殺蟲商品的選購原因為安全性較高為首，針對此數據進而分析，發現勾選安全性較高者大多選購產品劑型大多為選購產品劑型為電蚊香片、液體電蚊香、煙霧劑等；會查看選購商品是否印有合格字號比例則有 69%。

另針對消費者於產品使用行為進行分析，於環境用藥產品的使用會依據產品上所登載的使用方式進行使用為 88%；於產品購買時會先上網查詢相關資料為 32%。

於問卷中置入環境用藥系列宣導資訊，辦理網路宣導活動的民眾的參與度為 35%表示願意參加；於環境用藥宣導網站上想要了解如何降低使用環境用藥已達環境整潔達到 46%、正確購買環境用藥產品為 29%、如何正確使用各類環境用藥產品為 26%；認同以清掃環境來代替噴灑環境用藥高達 94%。

建議加強宣導環境用藥各類產品的使用說明與錯誤使用方法可能所造成的環境、人體健康影響；購買環境用藥產品時必須其產品需具備環保署核發字樣，以免民眾錯買非法環境用藥或錯誤使用方法引發環境污染、中毒事件發生，並加強如何以清掃代替噴灑環境用藥資訊，以供民眾參考。

6.8 環境用藥網路查核

在多元化的世代，網路拍賣購物已成為現代人倚賴的購買通路，目前各大拍賣網站中已明列出商品刊登規則，本計畫依據環境用藥管理法之法規定義，進行各大拍賣網站環境用藥販賣查核。

一、網路查核重點

非持有環境用藥許可證、環境用藥販賣業或病媒防治業許可執照，不得為環境用藥廣告。廣告定義：說明內容具有產品之效能、使用方式、製法或安全性。

二、網路查核販售環境用藥法規參考依據

- (一)依環境用藥管理法第 5 條第 1 項規定，環境衛生用藥係指環境衛生用殺蟲劑、殺蟻劑、殺鼠劑、殺菌劑及其他防制有害環境衛生生物之藥品。如蚊香、電蚊香、液體電蚊香、噴霧殺蟲劑、蟑螂藥、螞蟥藥、老鼠藥、環境衛生殺菌劑等，以及萘丸、合成樟腦丸、對二氯苯等防蟲藥劑。
- (二)另依環境用藥管理法第 32 條規定，非持有環境用藥許可證、環境用藥販賣業或病媒防治業許可執照者，不得為環境用藥廣告。如一般民眾、個人或非上述業者，上網廣告販(拍)賣環境衛生用藥者，則為非法廣告，並依環境用藥管理法第 48 條處新台幣 6 萬元以上 30 萬元以下罰鍰。如為持有環境用藥許可證、環境用藥販賣業或病媒防治業許可執照者，可上網環境用藥廣告，惟須遵守環境用藥廣告管理辦法規定。
- (三)又依環境用藥管理法第 9 條「製造、加工或輸入環境用藥，應將其名稱、成分、性能、製法之要旨、分析方法、毒理報告、藥效（效力）報告及有關資料或證件，連同標示及樣品，向中央主管機關申請查驗登記，經核發許可證後，始得製造、加工或輸入。」，凡未經本署查驗登記取得製造或輸入許可證之環境用藥，即為偽造環境用藥。另該法第 46 條「製造、加工、輸入偽造或禁用環境用藥者，處負責人新臺幣 30 萬元以上 150 萬元以下罰鍰。明知為偽造、禁用環境用藥，而販賣、轉讓或意圖販賣而陳列、貯存或為之調配、分裝者，處負責人新臺幣 9 萬元以上 45 萬元以下罰鍰。」

三、本計畫網路查核販售環境用藥流程

- (一)建立網路拍賣帳號
- (二)搜尋奇摩拍賣、露天拍賣、樂天商城...等相關網路拍賣網站所違法刊登之環境用藥
- (三)搜尋條件：以防制對象進行搜尋，如：蟑螂、跳蚤、螞蟥、白蟻、小黑蚊、鼠..等。
- (四)建立違反環境用藥相關法規之業者名單
- (五)提交違反環境用藥法規之名單至環保署

查核流程如圖 6-16 所示：

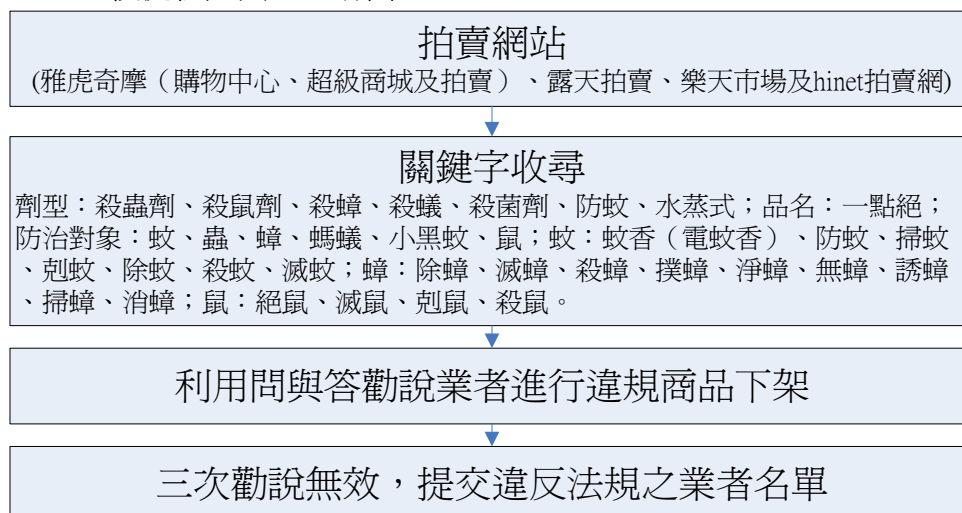


圖 6-16 查核流程圖

四、環保署查核販售環境用藥流程

- (一)依據本計畫所提交之違反相關法規之業者名單，發文至地方環保機關。
- (二)地方環保局依據查核名單，進行稽查。

五、網路查核販售環境用藥成果

截至 100 年 11 月 29 日，本計畫陸續於雅虎奇摩(購物中心、超級商城及拍賣)與露天拍賣查核環境用藥商品共計 57 項，目前已針對賣家進行勸導，查核資料如表 6-1。將持續於拍賣網站，進行查核網路販售環境用藥商品。

表 6-1 網路查核資料

編號	拍賣帳號 商品編號	拍賣名稱	拍賣網址
1	<u>ninety_nine99.tw</u>	鱷魚水蒸式殺滅滅蟑劑	http://tw.page.bid.yahoo.com/tw/auction/e44609352?u=ninety_nine99.tw
2	<u>diykd</u>	鱷魚白蟻油/水性蟑螂螞蟻藥水	http://tw.page.bid.yahoo.com/tw/auction/1212787759?u=diykd
3	<u>diykd</u>	鱷魚手錶造型防蚊器 日本進口	http://tw.page.bid.yahoo.com/tw/auction/b55199868?u=ninety_nine99.tw
4	<u>e505592713xa</u>	591【高雄蟑螂王】一點絕蟑螂藥手機電腦腳踏車達人 5g 一支 300 元免運費(提問更便宜)	http://tw.page.bid.yahoo.com/tw/show/qanda?aID=b61828408&u=&.r=1269635823
5	<u>yseven_a</u>	【免運費】一點絕蟑螂藥 5g 1 支 \$300、買 5 支 \$1500《優惠內詳》超商取貨、貨到付款	http://tw.page.bid.yahoo.com/tw/auction/1211693941
6	<u>james19830430</u>	【滅蟑！】蟑螂餌膠，簡單將蟑螂滅光光！	http://tw.page.bid.yahoo.com/tw/auction/1216883132
7	<u>forever-23</u>	【賤四螂】免運費可刷卡 萬人見證連鎖殺蟑法《開發票中千萬》一點絕 2% 凝膠餌劑蟑螂藥	http://tw.page.bid.yahoo.com/tw/auction/c59041416?u=forever-23
8	<u>sosolongkimo</u>	【台中市可面交免運費】一點絕 2%凝膠餌劑 蟑螂藥 全家便利貨到一支 300 元~ 提問享優惠 長刊期商品	http://tw.page.bid.yahoo.com/tw/auction/f23285443?u=sosolongkimo
9	<u>vcd14386011</u>	【經銷商新隆生技】一點絕蟑螂藥 5g1 支 300 元 台中市可面交免運《開發票》提問就有優惠 長刊期商品	http://tw.page.bid.yahoo.com/tw/auction/c58329856?u=vcd14386011
10	<u>yoyo_chih</u>	【詩貝 Show 生活館】螞蟻-99 防治螞蟻驅蟻劑粉狀 B-01-1120g/4 盒 免運	http://tw.page.bid.yahoo.com/tw/auction/1215540955

編號	拍賣帳號 商品編號	拍賣名稱	拍賣網址
		費	
11	<u>yoyo_chih</u>	【詩貝 Show 生活館】印度苦楝駭蟲剋星 12 入裝免運費	http://tw.page.bid.yahoo.com/tw/auction/b61497396
12	<u>woops38</u>	*東北五金*居家防白蟻好幫手,恐龍鱷魚白蟻油,優惠特價中	http://tw.page.bid.yahoo.com/tw/auction/b59575561
13	<u>r23460r</u>	【經銷商新隆生技】一點絕蟑螂藥 30g1 支 1250 元 台中可面交《開發票》優惠內詳 可超取免運	http://tw.page.bid.yahoo.com/tw/auction/b62658712
14	<u>gigi3973308</u>	拜沛達蟑螂凝膠型餌劑(蟑螂藥)-200 元~挑戰最低價 *超級有效*(新品/正常貨)	http://tw.page.bid.yahoo.com/tw/show/qanda?aID=c58980787
15	<u>chang_0819</u>	《達日來百貨批發倉儲》鱷魚水蒸式殺蟻滅蟑劑 2 入/盒 《大台中市最便宜》	已下架
16	<u>10022</u>	【10022】螞蟻-98 防治螞蟻驅蟻劑膏狀 A-02-1100g/4 瓶~可刷卡免運費	已下架
17	<u>sosolongkimo</u>	【台中市面交免運費】一點絕 2%凝膠餌劑 30g 蟑螂藥夏天促銷期間 1250 元~加送一支 5g~\$300~	http://goods.ruten.com.tw/item/show?21106017186676
18		【耶加雪啡雜貨鋪】蟑無計-特效 環保 除蟲 收納 保養 環境消毒 蟑螂藥,解決蟑螂問題	http://goods.ruten.com.tw/item/show?21104253182762
19	<u>q0931616832</u>	【經銷商新隆生技】一點絕蟑螂藥 5g1 支 300 元	http://goods.ruten.com.tw/item/show?21011253571604

編號	拍賣帳號 商品編號	拍賣名稱	拍賣網址
		《公司貨附發票》除蟑好幫手. 優惠內詳,免運	
20	a581514	【蔬菜之家】鼠剋命糊狀劑 100 克(10 片裝)//防治家鼠餌劑新一代老鼠藥直接置於老鼠時常出沒地方,如鼠洞、通道、取食處等	http://goods.ruten.com.tw/item/show?21103231373163
21	beingkite	全新北之特防蹣噴液	已下架
22	xyz21211	除蟑必備 一點絕 2%凝膠餌劑 5g 蟑螂藥 免運費公司貨	http://class.ruten.com.tw/user/index00.php?s=xyz21211
23	a23460a	除蟑必備 一點絕蟑螂藥 5g1 支特價 保證公司新貨,免運	http://goods.ruten.com.tw/item/show?21104125605311
24	gp01fbnt	陶避 蟑螂螞蟻粉筆劑(3 入) 特賣出清	http://goods.ruten.com.tw/item/show?21104183288154
25	lisensmile	鱷魚水蒸(水煙)式殺蹣滅蟑劑 25g(白蟻適用)	http://goods.ruten.com.tw/item/show?21104024222268
26	d56660773	包子饅頭童裝部 奧除驅蟻劑(80g) *除臭驅蟲,防治螞蟻,火蟻,批發,螞蟻剋星(現貨	http://tw.page.bid.yahoo.com/tw/auction/d56660773
27	e50320939	免運費》【菊水安殺蟲劑】牌子老、信譽好、不傷芽、不傷植株、行家限定	http://tw.page.bid.yahoo.com/tw/auction/e50320939?u=Y8101970528
28	c61145647	【蔬菜之家】興家安速水煙殺蟲劑 20 公克裝(即日起買一送一)日本製造所有害蟲一次搞定	http://tw.page.bid.yahoo.com/tw/auction/c61145647?u=Y5737159212
29	d55220984	☆樂樂購☆鐵馬星空☆Z07-002* 居家必備・螞蟻愛粒劑・螞蟻	http://tw.page.bid.yahoo.com/tw/auction/d55220984?u=Y8929357809

編號	拍賣帳號 商品編號	拍賣名稱	拍賣網址
		全部殺光光	
30	b65358486	三泉行~蟑螂螞蟻誘餌試用包~4 袋 100 元 免運費	http://tw.page.bid.yahoo.com/tw/auction/b65358486?ei=UTF-8&p=b65358486
31	f26227083	日本原裝進口~除蹣殺蟑效果最佳~興家安速水蒸式殺蟲劑(20 公克)x5 罐裝~免運費	http://tw.page.bid.yahoo.com/tw/auction/f26227083?ei=UTF-8&p=f26227083
32	d56722644	批發價省很大-日本進口水煙殺蟲劑	http://tw.page.bid.yahoo.com/tw/auction/d56722644?ei=UTF-8&p=d56722644
33	e41098407	* 東北五金 * 台灣製全新必安住快速氣霧式殺蟲劑	http://tw.page.bid.yahoo.com/tw/auction/e41098407?ei=UTF-8&p=e41098407
34	b64345329	陶避 蟑螂螞蟻粉筆劑(3 入) 特賣出清	http://tw.page.bid.yahoo.com/tw/auction/b64345329?ei=UTF-8&p=b64345329
35	d57182667	撲蟑殺蟲劑 除蟑螂 跳蚤	http://tw.page.bid.yahoo.com/tw/auction/d57182667?ei=UTF-8&p=d57182667
36	tomz1202	殺蟑膠餌	http://goods.ruten.com.tw/item/show?21111036684665
37	yingjiuan00	曄康環保殺蟑藥	http://goods.ruten.com.tw/item/show?21111013815093
38	johnmanser	居家、營業場所完美除蟑，讓蟑螂無所遁形，殺蟑滅鼠達人讓您高枕無憂!(請勿下標謝謝)	http://goods.ruten.com.tw/item/show?21104172294856
39	guestandy	日本殺蟑藥-撕蟑螂 -買3 盒送耐思洗髮粉--要買要快喔!非常有效喔!每盒 200 元	http://goods.ruten.com.tw/item/show?21004024232426#auc
40	peterhjj	雷達連環殺蟑堡	http://goods.ruten.com.tw/item/show?21107293179473
41	(金廣)達企業	鱷魚白蟻油/水性蟑螂螞蟻藥水	http://tw.page.bid.yahoo.com/tw/auction/1212787759

編號	拍賣帳號 商品編號	拍賣名稱	拍賣網址
42	<u>水水亮亮</u>	【水水亮亮】 螞蟻-99 防治螞蟻驅蟻劑粉狀 B-01-1120g/4 盒(關於我)**	http://tw.page.bid.yahoo.com/tw/auction/b65820804?u=Y5589131353
43	<u>*大進批發五金*歡迎光臨</u>	*大進建材五金批發* 鱷魚水性蟑螂白蟻油・白蟻新剋星有效撲滅・預防(特價中)	http://tw.page.bid.yahoo.com/tw/auction/b68838342
44	<u>急需使用票券,樂意預約面交服務</u>	喀匠的屋__Costco 好市多__【韓國原裝進口】 漢高 COMBAT 威滅 滅蟻隊 (滅蟻屋)	http://tw.page.bid.yahoo.com/tw/auction/c61629347
45	<u>下標後留言通知可立即結標 ^ ^</u>	免運費*螞蟻-98 防治螞蟻驅蟻劑膏狀 A-02-1100g/4 瓶	http://tw.page.bid.yahoo.com/tw/auction/1223186807
46	<u>Y3130190758</u>	【新奧除驅蟻劑】居家&園藝的小小幫手;限量 7 瓶 (螞蟻剋星) 只剩 4 瓶!!!	http://tw.page.bid.yahoo.com/tw/auction/c64691534
47	<u>阿健雜貨舖</u>	阿健雜貨舖~~~全新商品 全巢淨 除螞蟻劑~(直購價:59 元)	http://tw.page.bid.yahoo.com/tw/auction/f29822379?u=Y7806555358
48	<u>Y7667992863</u>	鱷王水蒸式白蟻蟑蟻藥	http://tw.page.bid.yahoo.com/tw/auction/f27904306
49	<u>Qyo 糖果屋</u>	☆~ Qyo 糖果屋... 【JJ727】螞蟻蟑螂粉筆劑(3 入)~ 提昇生活品質~	http://tw.page.bid.yahoo.com/tw/auction/f30189326
50	<u>展群科技</u>	【蟑無計】最新第三代盒裝版,解決蟑螂客戶見證,德國大小蟑螂,十送一特惠另有蟻無計	http://tw.page.bid.yahoo.com/tw/auction/1219789677?u=Y3528478876
51	<u>~雙寶坊~滿千免運</u>	~雙寶坊~滿千免運~螞蟻愛粒劑.螞蟻藥.螞蟻全部殺光光	http://tw.page.bid.yahoo.com/tw/auction/d60890554?u=Y2823989108

編號	拍賣帳號 商品編號	拍賣名稱	拍賣網址
52	<u>GI-GI 雜貨店</u> <u>(2 館)</u>	拜沛達蟑螂凝膠型餌劑 (蟑螂藥)-200 元~挑戰最 低價 *超級有效*(新品/ 正常貨)	http://tw.page.bid.yahoo.com/tw/auction/1222731636?
53	<u>11/30~12/4 出國</u> <u>~不寄貨</u>	{ Thurs day } 限時搶購 一點絕 2%凝膠餌劑,蟑螂 藥 5g1 支 269 元《公司貨》 免運	http://tw.page.bid.yahoo.com/tw/auction/b69353943?
54	<u>Miu'S 小舖 效</u> <u>率+服務+品質</u>	免運費 全新公司貨 一 點絕 2% 除蟑 殺蟑 必 備 蟑螂藥 5g	http://tw.page.bid.yahoo.com/tw/auction/b69303074?
55	<u>★ 奇 £ 幻 \$</u> <u>森 ψ 林 ☆</u>	ㄥ 原 裝 進 口 ㄥ S I E G E 一 點 絕 2 % 凝 膠 餌 劑 ~無 味~ (蟑螂剋星)	http://tw.page.bid.yahoo.com/tw/auction/f29913316?
56	<u>Y9244473117</u>	蟑螂藥 蟑螂粉 升級 Top Plus 添加天然餌食配方 2~3 天見效(一罐 165 克)	http://tw.page.bid.yahoo.com/tw/auction/b67331891
57	<u>Y7957165625</u>	YT (宇泰五金) 正台灣 製/鱷魚水性蟑螂/白蟻油 /螞蟥.白蟻新剋星有效撲 滅.防治/特價中	http://tw.page.bid.yahoo.com/tw/auction/d61151753

6.9 世界衛生組織(WHO)病媒蚊研究中心資料收集

世界衛生組織(WHO)於 1991 年 10 月 1 日在馬來西亞理科學大學(Universiti Sains Malaysia)生物科學院中設立病媒蚊研究中心(Vector Control Research Unit; VCRU)，並委託 VCRU 進行 WHO 測試盒實驗與 WHO 體外微量測定模板實驗，其測試實驗申請表與相關收費標準如附件二十二所示。

一、VCRU 設施，如圖 6-17 所示

- (一)家用殺蟲劑測試實驗室(含 test chamber)
- (二)殺蟲劑分析實驗室(含氣相層析儀)
- (三)城市害蟲實驗室
- (四)分子實驗室(含電泳儀、離心儀、PCR 儀與其他生化設備)
- (五)教學實驗室
- (六)體外微量測定模板實驗室
- (七)殺蟲劑抗藥測試盒實驗室
- (八)養蟲室(含八種蚊子、七種蟑螂、螞蟥與家蠅)



圖 6-17 VCRU 設施

二、研究方向

(一)生物學與病媒蚊控制

- 1.黑斑蚊、家蚊、瘧蚊與 *Mansonia* 蚊之分類與生態學
- 2.篩選、配製殺蟲劑(殺成蟲劑與殺幼蟲劑)、昆蟲生長調節劑、黑斑蚊/家蚊/*Mansonia* 蚊之引誘劑與忌避劑
- 3.結合化學、生物製劑與其他方法控制病媒蚊
- 4.療效與空間噴灑機(ULV/熱霧化)
- 5.以分子研究病媒蚊抗藥性
- 6.空間噴灑家用殺蟲劑產品，量測其對病媒蚊之半致死效應
- 7.以生化研究病媒蚊抗藥性(基線值與抗藥機制)

(二)蟑螂/螞蟥/白蟻之生物學與控制

- 1.調查馬來西亞北部之居家蟑螂/螞蟥族群
- 2.存在於馬來西亞旅館、餐廳與食品工廠之德國蟑螂的抗藥性(基線值、抗藥機制與基因頻率評估)
- 3.篩選新型殺蟑螂/螞蟥劑(餌與殘留)
- 4.馬來西亞半島北部之蟑螂/螞蟥生態
- 5.居家蟑螂之衛生影響
- 6.生物研究與控制地下白蟻

(三)家用殺蟲劑

- 1.新配方之居家殺蟲劑(蚊香、氣霧劑、mat 與液體蒸發器)進行實驗室與田間試驗
- 2.居家殺蟲劑之產品研發與品質控制

三、VCRU 實驗室品質控制

VCRU 實驗室品質控制詳細記載如附件二十三所示，以下節錄實驗室品質控制之流程進行介紹：

(一)全體人員之責任

VCRU 之組織架構如圖 6-18 所示，全體人員包含負責人、研究主任、研究助理主任與研究助理。

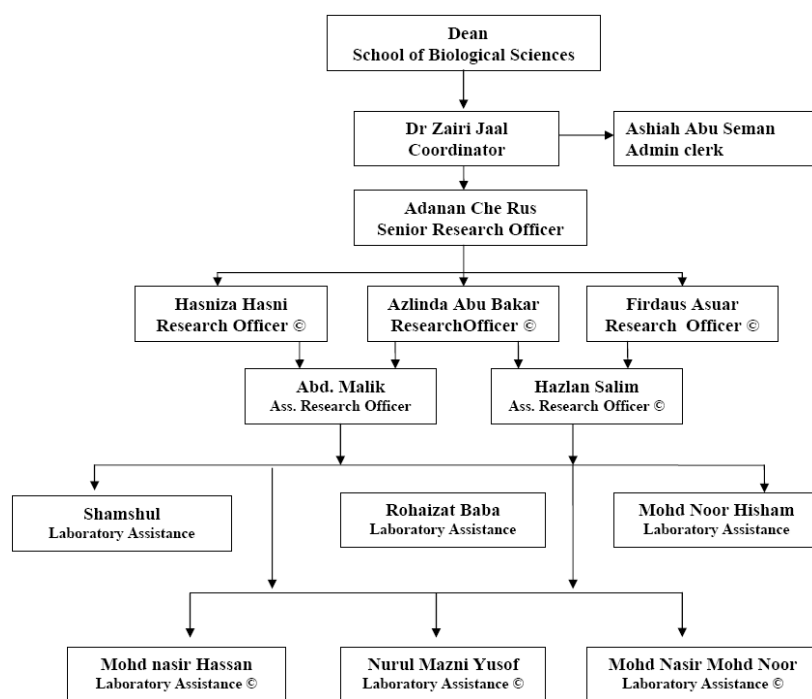


圖 6-18 VCRU 組織架構

(二)內部審查

經由品質管理者進行每年至少兩次的定期審查，且審查間隔不超過 9 個月。審查工作針對每個實驗室之工作方面，可能影響服務品質或性能之軸承，確保實驗品質與資訊更新，並抽查研究人員進行審核，確保其專業度與適任程度。

(三)改善行動

針對審查報告結果與糾正措施之建議內容，進行實驗室的改善。

(四)文件與變更控制

(五)校正與維持

VCRU 為 Skim Akreditasi Makmal Malaysia(SAMM)認可之實驗室，針對所有使用之量測儀器與設備皆進行定期校正，且在可能的情況下，

追溯到國家或國際量測標準。

(六)測試過程

- 1.鑑定測試項目或相關之測試項目範圍
- 2.鑑定任何測試敘述
- 3.檢查或測試標準設計與特性(含任何容忍限度)
- 4.測量設備使用清單，詳細說明其使用範圍、類型與準確度
- 5.測試項目與設備之安排與連接
- 6.操作順序與驗證
- 7.維持環境與其他條件(包含公差)
- 8.處理、製備、檢驗或測試之特別說明(如易損壞測試項目之特殊處理)
9. 異常發生或不符合之結果所採取的措施
- 10.確保安全或個人防護所採取的措施

(七)測試樣品處理與管理

測試樣品一律編列序號或其他代碼識別，並標示在顯而易見處。除此之外，測試前，樣品需放置於客戶要求處，以防止未經授權的移動或使用；測試過程中，樣品需採取預防措施，以確保標示完整未受損壞；測試結束後，則需將樣品安全儲存一段時間，並依照客戶要求處置。

(八)記錄

任何展示實驗室品質體系之有效運作與各實驗室之測試結果記錄應詳記時間且保存 2 年以上，應保存之記錄如下所列：

- 1.實驗室管理手冊(含取代副本)
- 2.實驗室程序(含取代副本)
- 3.測試程序
- 4.測試報告

5.測試記錄副本

6.校正記錄

7.審查報告與清單

(九)測試報告

對於實驗室進行的所有測試皆需填寫測試報告，且經由技術經理簽署，其內容至少包含以下所列：

1.實驗室名稱與地址

2.唯一的序號；客戶名稱與地址

3.測試方法或程序

4.詳載任何偏離、增加或排除之試驗

5.量測、檢察與導出之結果，任何支持誤差之證據(圖、表、草稿與照片)

6.相關之不確定性聲明

7.樣品是否符合要求之聲明

8.測試人員簽署姓名與日期，以示負責

若為更正或補充後之測試報告，需要標記”補充測試報告之序號...”等字樣，並符合上述項目。

(十)人事與訓練

VCRU 之所有人員皆須通過培訓取得合格資格，確保測試實驗之準確性與可信度

資料來源：

1.病媒蚊研究中心(VCRU)：<http://vcru.usm.my/default.asp?mn=home>

第七章 工作進度

本計畫目前執行進度已完成總體工作項目之 100 %，執行成果簡要說明如下。
各項合約工作細項完成進度請參閱表 7-1 工作項目辦理情形一覽表。

7.1 環保署工作進度管控表

表 7-1 環境用藥安全管理執行計畫預定進度表

工作項目	月次	工作 比重	預訂 進度	100 年											
				1 月	2 月	3 月	4 月	5 月	6 月	7 月	8 月	9 月	10 月	11 月	12 月
(一)辦理歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥許可管理規定之調查評析：(30%)															
1.收集並分析歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥管理之最新法令規定。	10	工作 內容	初步收集				持續收集				持續收集				
		累積百 分比		10	20	30		40		60	80	90	100		
2.收集歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區有關環境用藥管理及其替代物之相關資訊，提出相關建議採行措施。	10	工作 內容	初步收集分析結果				持續收集分析結果				持續收集分析結果				
		累積百 分比		10	20	30		40		60	80	90	100		
3.針對現行環境用藥管理措施提出檢討及建議。	10	工作 內容	初步收集分析結果				持續收集分析結果並提出建議				提出修正後之建議				
		累積百 分比									50	80	100		
(二)辦理環境用藥安全使用宣導及安全使用網站資料更新及維護：(40%)															
1.設計並製作環境用藥安全使用宣導單張、摺頁或其它型式宣導品至少2種，總份數不得少於1000份及辦理宣導活動(如徵圖比賽)。主題包括噴霧罐、煙霧劑(或燻煙劑)、蟑螂餌劑、殺鼠劑、殺菌劑等居家用劑型或配合居家環境清理及安全使用環境用藥。徵圖比賽活動包括評選活動初評及複評之外聘委員計10人、頒獎活動、活動獎品【第1名30,000元、第2名20,000元、	20	工作 內容			規劃宣導品及徵圖比賽					辦理 徵圖 比賽	評分、頒獎及 網路票選		宣導 品發 送		
		累積百 分比			20	30	40	50	60	70	80	90	100		

工作項目	月次	工作 比重	預訂 進度	100 年											
				1 月	2 月	3 月	4 月	5 月	6 月	7 月	8 月	9 月	10 月	11 月	12 月
第3名10,000元、網路票選獎5,000元、網路抽獎3,000元(各1名)、佳作5名(5,000元/名)或等值獎品】、獎狀(牌)製作(9只)、郵寄等。															
2.更新並維護環境用藥安全使用網站資料。	10	工作 內容		網頁 改版 初步 規劃	網頁 設計	網頁 建置	網站資料不定時更新								
		累積百 分比		20	40	60	70	75	80	85	90	95	100		
3.針對環境用藥安全使用網站，配合時令推出3種不同網頁背景設計。	10	工作 內容				世界 地球 日版 面		端午 節版 面		父親 節、中 秋節 版面		滅鼠 週版 面			
		累積百 分比				20		40		80		100			
(三)辦理 1 場為期 1 天環境用藥技術應用研討會（17%）															
辦理為期1天環境用藥管理及病媒防治技術研討會	17	工作 內容				初步規劃			聯絡投稿		研討 會行 程確 認	辦理 研討 會			
		累積百 分比				10	20	30	50	70	80	100			
(四)其他協助、支援及相關事項（13%）															
1.協助本署處理環境用藥突發媒體新聞事件、消費事件或緊急狀況之相關因應措施，並協助收集翻釋整理環境用藥管理、綠色化學等相關資料。	3	工作 內容	依臨時需求處理												
		累積百 分比		10	20	30	40	50	60	70	80	90	100		

環境用藥安全管理評析計畫

工作項目	月次	工作 比重	預訂 進度	100 年											
				1 月	2 月	3 月	4 月	5 月	6 月	7 月	8 月	9 月	10 月	11 月	12 月
2.協助本署辦理環境用藥管理、公聽會等相關會議作業(必要時邀請專家學者參與)及行政支援。	3	工作 內容	依臨時需求處理												
		累積百 分比			10	20	30	40	50	60	70	80	90	100	
3.環境用藥安全使用性別研究調查問卷	3										20	40	100		
4.環境用藥藥效實驗室參訪	4												40	100	
(五)第一次工作進度報告(5月17日)															
(六)期中報告(9月5日)															
(七)期末報告(12月19日)															

表 7-2 環境用藥安全管理計畫實際預定進度及查核點說明

契約書之預定進度累積百分比(%)		100%			實際執行進度(%)	100%	
工作內容項目	實際執行情形	差異分析(打√)			落後原因	困難檢討及對策	預計改善完成日期
		符合	落後	超前			
(一)辦理歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥許可管理規定之調查評析	--	√					
1.收集並分析歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥管理之最新法令規定。	1.完成歐盟最新註冊之有效成分-殺鼠劑共計 39 項、殺菌劑共計 27 項 2.完成美國殺鼠劑產品四大類規範產品規格合格名單及新增 1 項殺菌劑有效成分 Amisulbrom 與 1 項殺蟲劑有效成分 Ethiprole 3.完成日本於建築物衛生環境法之註冊規定條件法規資料更新 4.完成大陸地區有害生物防治服務機構資質等級評定之實施辦法資料更新、中國衛生有害生物防治協會 PCO 綜合實力排行評定實施辦法	√					
2.收集歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區有關環境用藥管理及其替代物之相關資訊，提出相關建議採行措施。	完成四種綠色產品資料收集： 美國 1.Chlorantraniliprole 殺蟲劑有效成分可取代除蟲菊精類、氨基甲酸酯與有機磷殺蟲劑，已取得美國 EPA 註冊之降低風險殺蟲劑且添加於美國之販賣產品中；2.VigorOx [®] Biocide 殺菌劑可取代戊二醛除菌劑，已取得專利與 EPA 註	√					

契約書之預定進度累積百分比(%)		100%			實際執行進度(%)	100%	
工作內容項目	實際執行情形	差異分析(打√)			落後	困難檢	預計改
	冊。 印尼 1.Mitol 20EC 殺菌劑之成分為天然之丁香酚與丁香酚酯，已取得專利與製造許可證； 2.Samro Biosida 殺菌劑之成分由植物提煉與微生物發酵而成。						
3.針對現行環境用藥管理措施提出檢討及建議。	1.建議持續掌握國際公約之規範，並與國際接軌有關環境用藥之禁用之有效成分 2.建議加重環境用藥罰則，擬定環境用藥對於生態影響方面之規範 3.建議規範居家殺鼠劑產品規格，以降低殺鼠劑影響之風險，已達到保護家中孩童與寵物 4.建議提高我國於毒性分類之濃度劑量可參考WHO 公告之殺蟲劑毒性分類	√					
(二)辦理環境用藥安全使用宣導及安全使用網站資料更新及維護	--	√					
1.設計並製作環境用藥安全使用宣導單張、摺頁或其它型式宣導品至少 2 種，總份數不得少於 1000 份及辦理宣導活動(如徵圖比賽)。主題包括噴霧罐、煙霧劑(或燻煙劑)、蟑螂餌劑、殺鼠劑、殺菌劑等居家常用劑型或配合居家環境清理及安全使用環境用藥。徵圖比賽活動包括評選活動初評及複評之外聘委員計 10 人、頒獎活動、活動獎品【第 1 名 30,000 元、第 2 名 20,000	1.宣導品設計書籤、摺頁、便利貼共計 1000 份;海報共計 230 份 2.於 100 年 10 月 18 日完成辦理安全使用環境衛生用藥繪圖比賽。	√					

契約書之預定進度累積百分比(%)		100%			實際執行進度(%)	100%	
工作內容項目	實際執行情形	差異分析(打√)			落後	困難檢	預計改
元、第 3 名 10,000 元、網路票選獎 5,000 元、網路抽獎 3,000 元(各 1 名)、佳作 5 名(5,000 元/名)或等值獎品】、獎狀(牌)製作(9 只)、郵寄等。							
2.更新並維護環境用藥安全使用網站資料。	於 100 年 8 月 12 日完成改版上線。	√					
3.針對環境用藥安全使用網站，配合時令推出 3 種不同網頁背景設計。	配合時令已上架地球日版面、端午節版面、父親節版面、中秋節版面及滅鼠週版面。	√					
(三)辦理 1 場為期 1 天環境用藥技術應用研討會	已於 100 年 10 月 28 日於集思台大會議中心 蘇格拉底廳完成辦理環境用藥技術應用研討會。	√					
(四)其他協助、支援及相關事項		√					
1.協助本署處理環境用藥突發媒體新聞事件、消費事件或緊急狀況之相關因應措施，並協助收集翻釋整理環境用藥管理、綠色化學等相關資料。	1 環境用藥查核成果年度記者會 2 口服急毒性 OECD 420 附件翻譯 3 歐盟對二氯苯、萘之限用禁用狀況 4 美國微生物製劑汙染環境處理方式 5 環境用藥網路查核 6 世界衛生組織(WHO)病媒蚊研究中心資料收集	√					
2.協助本署辦理環境用藥管理、公聽會等相關會議作業(必要時邀請專家學者參與)及行政支援。	1.微生物製劑黑殭菌資料收集 2.協助辦理增列微生物製劑公聽會	√					
3.環境用藥安全使用性別研究調查問卷	購買產品針對家中出現害蟲所購買的高達 76%、考慮防治對象多的為 24%；假設主要購買殺蚊產品的主要為噴霧罐為 34%、液體電蚊香為 25%、蚊香為 23%；針對前述劑型購買的原因以 27%安全性高為首要選擇、較無味道	√					

契約書之預定進度累積百分比(%)		100%			實際執行進度(%)	100%	
工作內容項目	實際執行情形	差異分析(打√)			落後	困難檢	預計改
	25%、習慣購買與操作方式較為簡單各為17%，針對上述數據分析，於消費行為中受訪者於購買環境用藥產品時較傾向可殺死居家中出現的的為主，針對殺蟲商品的選購原因為安全性較高為首，針對此數據進而分析，發現勾選安全性較高者大多選購產品劑型大多為選購產品劑型為電蚊香片、液體電蚊香、煙霧劑等；會查看選購商品是否印有合格字號比例則有 69%。 另針對消費者於產品使用行為進行分析，於環境用藥產品的使用會依據產品上所登載的使用方式進行使用為 88%；於產品購買時會先上網查詢相關資料為 32%。建議加強宣導環境用藥各類產品的使用說明與錯誤使用方法可能所造成的環境、人體健康影響；購買環境用藥產品時必須其產品需具備環保署核發字樣，以免民眾錯買非法環境用藥或錯誤使用方法引發環境污染、中毒事件發生，並加強如何以清掃代替噴灑環境用藥資訊，以供民眾參考。						
4.環境用藥藥效實驗室參訪	完成國內四間環境用藥藥效實驗室參訪與水生生物實驗室參訪	√					

查核點	預定完成時間	查核點內容說明
2011 年「世界地球日」版面上架	100/04/22 前	環境用藥安全使用網站世界地球日版面上架
第 1 次會前專家會議	100/04/22 前	針對工作進度報告召開第 1 次會前專家會議
第 1 次工作進度報告	100/04/30 前	提出第 1 次工作進度報告 5 份
2011 年「端午節」版面上架	100/06/03 前	環境用藥安全使用網站端午節版面上架
2011 年「父親節」版面上架	100/8/1 前	環境用藥安全使用網站父親節版面上架
第 2 次會前專家會議	100/08/24 前	針對期中報告召開第 1 次會前專家會議
期中報告	100/08/31 前	提出期中報告 12 份
2011 年「中秋節」版面上架	100/09/10 前	環境用藥安全使用網站中秋節版面上架
環境用藥安全使用徵圖比賽	100/10/31 前	需辦理完成環境用藥安全使用徵圖比賽
環境用藥技術應用研討會	100/10/31 前	需辦理完成環境用藥技術應用研討會
2011 年「滅鼠週」版面上架	100/10/31 前	環境用藥安全使用網站世界滅鼠週版面上架
第 3 次會前專家會議	100/11/23 前	針對期末報告召開第 1 次會前專家會議
期末報告	100/11/30 前	提出期末報告(初稿)12 份

7.2 環資國際工作進度管控表

本章節為工作進度內部管控表，依據環保署工作時程訂定，並計算工作進度，詳如表 7-3 所示：

表 7-3 毒性化學物質許可審查及環境用藥安全管理計畫內部管控表

工作項目	作業進度	開始工作日期	預定完成日期	實際進度(%)	工作權重(%)	實際進度占總進度百分比(%)
(一)辦理歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥許可管理規定之調查評析	--	--	--	--	30	30.0
1.收集並分析歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區環境用藥管理之最新法令規定。	1.完成歐盟最新註冊之有效成分-殺鼠劑共計 39 項、殺菌劑共計 27 項 2.完成美國殺鼠劑產品四大類規範產品規格合格名單及新增 1 項殺菌劑有效成分 Amisulbrom 與 1 項殺蟲劑有效成分 Ethiprole 3.完成日本於建築物衛生環境法之註冊規定條件法規資料更新 4.完成大陸地區有害生物防治服務機構資質等級評定之實施辦法資料更新、中國衛生有害生物防治協會 PCO 綜合實力排行評定實施辦法	2 月 15 日	11 月 30 日	100	10	10
2.收集歐盟、美國及亞洲(泰國、印尼、越南、中國大陸、日本、韓國等)地區有關環境用藥管理及其替代物之相關資訊，提出相關建議採行措施。	完成四種綠色產品資料收集： 美國 1.Chlorantraniliprole 殺蟲劑有效成分可取代除蟲菊精類、氨基甲酸酯與有機磷殺蟲劑，已取得美國 EPA 註冊之降低風險殺蟲劑且添加於美國之販賣產品中； 2.VigorOx® Biocide 殺菌劑可取代戊二醛除菌劑，已取得專利與 EPA 註冊。 印尼 1.Mitol 20EC 殺菌劑之成分為天然之丁香酚與丁香酚酯，已取得專利與製造許	2 月 15 日	11 月 30 日	100	10	10

環境用藥安全管理評析計畫

工作項目	作業進度	開始工作日期	預定完成日期	實際進度(%)	工作權重(%)	實際進度占總進度百分比(%)
	可證； 2.Samro Biosida 殺菌劑之成分由植物提煉與微生物發酵而成。					
3.針對現行環境用藥管理措施提出檢討及建議。	1.建議持續掌握國際公約之規範，並與國際接軌有關環境用藥之禁用之有效成分 2.建議加重環境用藥罰則，擬定環境用藥對於生態影響方面之規範 3.建議規範居家殺鼠劑產品規格，以降低殺鼠劑影響之風險，已達到保護家中孩童與寵物 4.建議提高我國於毒性分類之濃度劑量可參考 WHO 公告之殺蟲劑毒性分類	2 月 15 日	11 月 30 日	100	10	10
(二)辦理環境用藥安全使用宣導及安全使用網站資料更新及維護	--	--	--	--	40	40
1.設計並製作環境用藥安全使用宣導單張、摺頁或其它型式宣導品至少 2 種，總份數不得少於 1000 份及辦理宣導活動(如徵圖比賽)。主題包括噴霧罐、煙霧劑(或燻煙劑)、蟑螂餌劑、殺鼠劑、殺菌劑等居家常用劑型或配合居家環境清理及安全使用環境用藥。徵圖比賽活動包括評選活動初評及複評之外聘委員計 10 人、頒獎活動、活動獎品【第 1 名 30,000 元、第 2 名 20,000 元、第 3 名 10,000 元、網路票選獎 5,000 元、網路抽獎 3,000 元(各 1 名)、佳作 5 名(5,000 元/名)或等值獎品】、獎狀(牌)製作(9 只)、郵寄等。	1.宣導品設計書籤、摺頁、便利貼共計 1000 份;海報共計 230 份 2.於 100 年 10 月 18 日完成辦理安全使用環境衛生用藥繪圖比賽。	2 月 15 日	11 月 30 日	100	20	20

工作項目	作業進度	開始工作日期	預定完成日期	實際進度(%)	工作權重(%)	實際進度占總進度百分比(%)
2.更新並維護環境用藥安全使用網站資料。	於 100 年 8 月 12 日完成改版上線。	2 月 15 日	11 月 30 日	100	10	10
3.針對環境用藥安全使用網站，配合時令推出 3 種不同網頁背景設計。	配合時令已上架地球日版面、端午節版面、父親節版面、中秋節版面及滅鼠週版面。	2 月 15 日	11 月 30 日	100	10	10
(三)辦理 1 場為期 1 天環境用藥技術應用研討會	已於 100 年 10 月 28 日於集思台大會議中心 蘇格拉底廳完成辦理環境用藥技術應用研討會。	2 月 15 日	8 月 31 日	100	17	17
(四)其他協助、支援及相關事項		2 月 15 日	12 月 31 日	100	13	13
1.協助本署處理環境用藥突發媒體新聞事件、消費事件或緊急狀況之相關因應措施，並協助收集翻釋整理環境用藥管理、綠色化學等相關資料。	1 環境用藥查核成果年度記者會 2 口服急毒性 OECD 420 附件翻譯 3 歐盟對二氯苯、萘之限用禁用狀況 4 美國微生物製劑汙染環境處理方式 5 環境用藥網路查核 6 世界衛生組織(WHO)病媒蚊研究中心資料收集	2 月 15 日	12 月 31 日	100	3	3
2.協助本署辦理環境用藥管理、公聽會等相關會議作業(必要時邀請專家學者參與)及行政支援。	1.微生物製劑黑殭菌資料收集 2.協助辦理增列微生物製劑公聽會	2 月 15 日	12 月 31 日	100	3	3
3.環境用藥安全使用性別研究調查問卷	購買產品針對家中出現害蟲所購買的高達 76%、考慮防治對象多的為 24%；假設主要購買殺蚊產品的主要為噴霧罐為 34%、液體電蚊香為 25%、蚊香為 23%；針對前述劑型購買的原因以 27%安全性高為首要選擇、較無味道 25%、習慣購買與操作方式較為簡單各為 17%，針對上述數據分析，於消費行為中受訪者於購買環境用藥產品時較傾向可殺死居家中出現的為主，針對殺蟲商品的選購	8 月 1 日	10 月 31 日	100	3	3

工作項目	作業進度	開始工作日期	預定完成日期	實際進度(%)	工作權重(%)	實際進度占總進度百分比(%)
	原因為安全性較高為首，針對此數據進而分析，發現勾選安全性較高者大多選購產品劑型大多為選購產品劑型為電蚊香片、液體電蚊香、煙霧劑等；會查看選購商品是否印有合格字號比例則有69%。 另針對消費者於產品使用行為進行分析，於環境用藥產品的使用會依據產品上所登載的使用方式進行使用為88%；於產品購買時會先上網查詢相關資料為32%。建議加強宣導環境用藥各類產品的使用說明與錯誤使用方法可能所造成的環境、人體健康影響；購買環境用藥產品時必須其產品需具備環保署核發字樣，以免民眾錯買非法環境用藥或錯誤使用方法引發環境污染、中毒事件發生，並加強如何以清掃代替噴灑環境用藥資訊，以供民眾參考。					
4.環境用藥藥效實驗室參訪	完成國內四間環境用藥藥效實驗室參訪與水生生物實驗室參訪	10月1日	11月30日	100	4	4
						100

第八章 結論與建議

結論

本年度計畫工作項目為：

一、收集國際間環境用藥許可管理法規之調查評析

二、環境用藥使用宣導及安全使用網站

三、辦理環境用藥技術應用研討會

四、環境用藥藥效實驗室參訪

五、其他協助、支援及相關事項

(一)完成辦理環境用藥查核成果年度記者會

(二)完成口服急毒性 OECD420 附件翻譯作業

(三)收集微生物製劑黑殭菌資料

(四)完成協助辦理增列微生物製劑公聽會

(五)收集歐盟對二氯苯、萘之限用禁用狀況

(六)收集美國微生物製劑汙染環境處理方式

(七)完成環境用藥安全使用之性別研究及調查評析

(八)提出 50 筆環境用藥網路查核

(九)收集世界衛生組織(WHO)病媒蚊研究中心資料

以上五大項工作，從法規制度提升、行政工作協助至環境用藥宣導作業推廣，包含了制度面、宣導面及行政面等工作內容。

上述工作的進行與相關機制的擬定，於前置作業的準備需要相當多的協助，對於未來的環境用藥的法規提升以及制度研擬，國際環境用藥法規的資料收集

亦相當重要，以下針對本年度之主要工作項目內容進行說明：

- 一、**國際環境用藥的法規制度收集**，針對先進國家美國、日本、歐盟及鄰近的亞洲國家進行資料收集，彙整的相關資料可做為未來環境用藥工作政策的參考。針對資料收集，本計畫除了針對各國的管理背景、資料架構、法源依據、註冊相關管理規定著手收集之外，並依據各國管制項目內容進行評析，提供業務單位針對其相關資料進行後續作業評估作業。
- 二、隨著社會環保意識的抬頭，減少使用化學產品的使用**環境用藥使用宣導及安全使用網站**為貼近民眾生活的重要一部分，本計畫掌握民眾最想知道的如何購買產品資訊、如何安全使用環境用藥，進行全面性的推廣活動與增加網站的活潑度，本年度截至 100 年 11 月 24 日瀏覽人氣約為一萬七千人次，同時兼具民眾於吸收知識與娛樂的效果。
- 三、辦理一場次年度的**環境用藥技術應用研討會**為環保機關最貼近業者的學術性活動，當日與會人數共計 123 人，演講主題內容針對環境用藥應用於驅蚊及誘蚊防治效果及登革熱防治相關議題邀請專家學者專題介紹，除環境用藥業者及環保機關，同時提供民眾入場並針對有效防除家中擾人的害蟲防治方法進行介紹，以提昇對於環境用藥的了解，藉以達到環境用藥應用技術整體之宣導。
- 四、目前於國內環境用藥申請註冊時，依法規規定需檢附相關申請文件，環保署於本年度提出針對國內**環境用藥藥效實驗室參訪**作業共計參訪五間環境用藥藥效實驗室，藉以了解目前於國內藥效實驗室規模技術，於參訪後綜合專家學者意見，彙整提供於後續管理規範制定之基礎。

本年度從行政支援協助、國際法規資訊收集評估建議至研討會舉辦及環境用藥藥效實驗室參訪，亦完成了相當豐富的成果，期望能對環境用藥管理帶來一定的成效，並讓更多民眾了解有關環境用藥相關的環保觀念。

建議

本計畫於環境用藥管理由 97 年執行至今，對於相關業務的推動及國際法規資料評估已逐漸建全各國管理資訊，針對本年度所收集成果，就計畫所屬的工作項目提出相關建議：

一、收集國際間環境用藥許可管理法規之調查評析

- (一)目前於鹿特丹公約編列危險化學品共 39 項，其中屬於除害劑的化學品為 32 項；斯德哥爾摩公約規範之持久性有機污染物共 21 項，而屬於除害劑的持久性有機汙染物為 12 項；建議我國於環境用藥有效成分評估修訂目前國內尚未規範之有效成分，以健全管理制度。
- (二)越南於環境用藥管理，針對販賣場所之安全性，必需確保環境用藥不得與醫藥、糧食、飲料與其他消費品一同販售，目前於我國並無針對銷售商品陳列擬定相關管理規章，建議針對環境用藥於商品購買存放應制定相關管理規定，並針對販售場所安全性加以規範。
- (三)美國針對殺鼠劑管理規範於本年度進行產品規格修正，並依據殺鼠劑安全性分為四大類，同時針對目前已上架販售之商品重新進行評估，本次修正管理規範主要為降低殺鼠劑影響之風險，並進而保護孩童與寵物及野生動物；建議我國於殺鼠劑的管理可參酌美國的管理規範，針對藥劑放置的地點與最容易誤觸殺鼠劑放置的孩童與動物，進行產品的安全包裝規範，以防止誤食中毒的狀況發生。
- (四) WHO 已於 2009 年更新殺蟲劑毒性分類，並與化學品全球調和制度 (Globally Harmonized System; GHS) 之毒性分類同步，建議我國亦更新環境用藥之毒性分類。

二、環境用藥使用宣導

環境用藥為生活中最常接觸的化學藥劑，民眾於家中遭到入侵蟲害的同時，部分民眾未依正確的產品標示方式進行環境用藥的使用，我國針對環境用藥的宣導於近幾年逐步擴大宣導，本年度辦理繪圖比賽、宣導品以

及如何購買環境用藥宣導短片進行宣導；建議針對宣導作業可延續本年度宣導短片製作方式，擬訂多種主題，於國小、國中加強宣導播放，已達環境教育向下扎根的根本。

三、環境用藥技術應用研討會

於本年度所舉辦的環境用藥技術應用研討會，針對主題內容的設計大多為防治、用藥噴灑，其主題內容較偏向於技術面之專題演講，建議明年可針對民眾舉辦有關環境用藥相關資訊的說明會，從居家用藥安全至如何減少孳生源有效推廣於大眾，同時建議研討會舉辦地區可選定地理位置較中心的地區舉辦，以嘉惠更多想蒞臨參與的大眾。

四、環境用藥藥效實驗室參訪作業

本年度參訪共計五間的環境用藥藥效實驗室，目前國內實驗室規模大部分為學術單位研究所對業者進行試驗，建議針對國內藥效試驗實驗室可修正環境衛生用藥藥效測試通則，同時制定藥效檢測收費標準，已利市場公平交易制度；另可針對較具規模之實驗室進行參訪，以健全修訂其測試通則。

五、環境用藥網路查核作業

本年度於環境用藥網路查核作業，分別於露天拍賣與奇摩拍賣兩大賣場，共計查核 57 件商品，於我國環境用藥管理法規特別針對民眾於拍賣網站販賣一般環境用藥刊登廣告疑義發布相關解釋令，目前民眾於正確刊登產品的資訊尚未健全；建議於我國針對網路販售產品可增訂相關管理規範，於販售平台應先達到把關的制度，並採取連帶處罰，以降低民眾刊登違反環境用藥廣告之虞。

書面附件

附件一

評選會議回覆意見

「環境用藥安全管理執行計畫」

服務建議書審查會議審查意見及回覆

◆ 王委員順美

項次	審查意見	意見回覆
1	請加強說明環境用藥之預防方式、替代方式、綠色環境用藥，宣導的素材、WEB 頁、書籤、便利貼、徵圖，建議加上更多的小撇步供使用。	本年度環境用藥宣導除針對安全使用納入宣導方向外，亦強化如何預防例如使用清掃代替使用殺蟲劑，並於製作的宣導品上放上小撇步以及簡單標語達到推廣的效果。
2	加強運用各種管道，特別是在社區、家庭做宣導。	宣導的部分除於環保署、各地方環保局外放置宣導品外，一般民眾與業者辦理公務時可索取外，並透過繪圖比賽、技術研討會及網站宣導方式，推動環境用藥安全使用或其簡易預防方式至鄰里、社區及家庭等。

◆黃委員紹毅

項次	審查意見	意見回覆
1	本計畫之一重點工作為收集並分析國際間環境用藥管理之最新法令規定。工作方法列在第 3-1~3-2 頁，主要是從各國之環保單位網站收集。因為要收集的內容還不是很明確，所以這樣的收集方式可能有一些問題。面對廣大的資料庫，如何做判別，可能需要更精細的做規劃，才能得到較為有系統的資料。所以個人以為所有資料之來源部分，需詳細陳述，統於期末報告中將原文列出來。另外，就收集內容方面，建議也許先就一些國內在環境用藥管理較為短缺的部分進行。因為此部分為計畫中之重要工作項目，如環資公司沒有太大把握，也可以和所邀請之專家學者先行詢問，並且和委託之業務單位充分溝通後進行。	針對國際環境用藥法規，以各國環境用藥主管機關網站為主要來源資料，除訂閱該電子報之外，若無提供此功能的國家，亦會定時上網進行最新資料來源，並搭配以電子郵件與收集主管機關進行信件郵件。若該國網站資源相當豐富，則以另增關鍵字查詢增加收集範圍，並於期末報告增加原文附件以供參閱。 針對各國法規資料收集，本年度除進行國際法規資料進行專家審議外，於資料收集方面亦增加多國交換學生協助資料收集，來提升國際法規資訊收集制度。
2	第 3-2 頁有關日本資料收集部分，既然是為收集最新之法令規定，此處列出之資料為 1999 年出版，距今有 10 多年，何能稱為最新資料，有必要再調整收集之方式及對象。	針對日本資料的收集，以更新至 2011 年之最新管理規範，請參閱 2.3-3 章節。
3	有關徵圖比賽部分，目前規定稿件支規格需為八開圖畫紙，並未明定是要手繪或者可以使用數位（電腦繪圖）方式。這個部分可能需明訂，比較不會起爭議。	因顧及投稿對象未受年齡限制，所以徵件手繪及電腦繪圖藉時將採用兩者併行收件之方式，徵圖比賽詳細規劃如 3.2 章節。

◆袁委員中新

項次	審查意見	意見回覆
1	蒐集各國環境用藥管理相關法規內容中，缺泰國、印尼、越南、韓國等。	亞洲地區(包含合約規定收集國家泰國、印尼、越南、韓國，以及新增之新加坡、香港)環境用藥管理相關內容，請參閱報告 2.2 章節。
2	環境用藥技術應用研討會之規劃內容較像「研習會」，是否符合環保署構想需再確認。另除量化指標(如：120 人、1200 份等)外，亦應訂定質化指標，俾作為計畫成效評估之依據。	本年度所舉辦的環境用藥技術研討會，針對環境用藥專家學者進行邀稿及講習，內容除環境用藥最新管理規範及趨勢外，並含環境用藥安全使用的宣導，參與對象不受限含有環境用藥業者、一般民眾及學術單位，凡報名者皆可免費參與；質化指標並規劃預計於研討會後邀請參與者進行問卷調查，其滿意度可做為計畫成效的評估依據之一，可參閱報告書第四章節。
3	服務建議書第六章中未把專案經理簡澄珊之簡歷資料列入，另表 7-1 中環境工程師為何人？	簡澄珊小姐本年度原擔任本計畫專案經理，然因職務調整經由環保署同意改為擔任本計畫主持人，於 94 年起即參與毒性化學物質運作管理與輔導計畫，相關整體制度的規劃以及系統的建立，期間並曾派駐於環保署毒管處進行行政業務資訊等處理；於 97 年度專職於本計畫擔任許可證專業審查工程師，針對國際間最新環境用藥法規與綠色化學趨勢動態皆相當了解，除了本身工作之熱誠外其豐富的專業知識，針對本計畫所需要之經驗相當完備並考取毒化物相關證照，能夠達到環保署所要求之目標。
4	「環境用藥安全使用宣導及安全使用網站」之內容應再予更新精進，俾具備可讀性、易懂性、正確性(如：Q&A)。	環境用藥安全使用網站內容針對使用對象進行網頁內容分類如兒童、一般民眾，並將內容調整為具備可讀性、易懂性、正確性。於網站中亦會提供些小遊戲讓民眾於遊戲作答中增進環境用藥安全使用的觀念。

◆陳委員淑玲

項次	審查意見	意見回覆
1	本計畫工作內容與服務建議書相符，惟內容須補充並確實執行工作內容要求之亞洲地區泰國、印尼、越南、韓國等國家之環境用藥管理相關規定蒐集工作。原計畫書中額外增加之「香港」、「新加坡」，仍請一併蒐集分析。	亞洲地區(包含合約規定收集國家泰國、印尼、越南、韓國，以及新增之新加坡、香港)環境用藥管理相關內容，請參閱報告 2.2 章節。
2	服務建議書第二章第 2-17 至 2-20 頁所附各國殺鼠劑管理現況、環境用藥許可申請對照表，內容請修正。例如：1.殺鼠劑產品「有效成分法定許可期限」，美國對許可證有「再註冊」(Reregistration)規定，週期約 15 年；中國大陸亦規定為 5 年，並非沒規定；2.「製造、輸入許可申請」，內容均描述銷售販賣非製造、輸入規定；3.「標示」，應比較其標示項目；4.「禁用環境用藥」，歐盟 98/8/EEC 即有規定，非無明確規定。	針對環境用藥許可申請對照表，已進行意見之修正，請參閱 2.5 章節。
3	辦理全國環境用藥安全宣導徵圖比賽，請問 貴公司將用何種方式將比賽訊息公開？如何加強其消息曝光率來吸引全國民眾、學生、甚至家長參加投稿？網路票選將如何防堵網路灌票？另徵圖比賽評審委員應考慮動漫領域之專家。	針對繪圖比賽除透過環保署公文，於環境用藥安全使用網站及鄰里進行徵圖之宣傳。透過網路、鄰里、學校來邀請各階層的投稿；在網路票選部分，採用填寫真實姓名、手機與正確之電子郵件信箱，且加入驗證碼的填寫，並於投票完畢需置信箱進行確認信函的回覆，加上 IP 位址比對，已達灌票防堵問題產生。針對評審委員部分，將會視繪圖比賽規範，聘請合乎其專業領域(如手繪或動漫)為主的專家進行評分，以維持其評分公正性，請參閱 3.2 章節。
4	投標廠商環資國際公司具有承辦數年環保署委辦環境用藥計畫資歷，工作經驗豐富，應可勝任本工作。	感謝委員的支持與肯定。

附件二

工作進度報告會議審查回覆意見

「環境用藥安全管理執行計畫」

工作進度報告會議審查意見及回覆

◆ 蔡秋美

項次	審查意見	意見回覆
1	請收集印尼環境用藥臨時許可證與正式相關規定；第 2-9 頁 LC50 半致死濃度是否為魚類。	針對印尼環境用藥臨時許可證的相關資料請參閱 2.2-2 章節；針對毒理檢測項目 LC50 是否針對魚類，目前經查無相關資料，針對此部分會持續收集相關資料。
2	第 3-10 頁參賽同意書中創意意涵說明 300 字修正為 100 字以內。	針對參賽同意書中意涵說明文字，與業務單位協調後，字數已修正為 300 字以內。
3	徵圖比賽防堵灌票方式以投票者提供身份證字號第一位英文字母與後 5 碼方式需修正。	針對灌票防堵的方式，改為採用填寫真實姓名、手機與正確之電子郵件信箱，且加入驗證碼的填寫，並於投票完畢需置信箱進行確認信函的回覆，加上 IP 位址比對，可達到灌票防堵問題產生。
4	環境用藥工廠查核作業修正為環境用藥藥效實驗室參訪，請環資國際提供查核項目。	已把環境用藥工廠查核工作項目，改為環境用藥藥效實驗室參訪，實驗室查核項目請參閱報告第五章節。

◆陳簡任技正淑玲

項次	審查意見	意見回覆
1	世界衛生組織(WHO)在印尼設有病媒蚊研究中心，請提供建議其建議劑量。	經查詢資料，目前世界衛生組織(WHO)設置之病媒蚊研究中心位於馬來西亞，針對其內容規範請參閱 6.9 章節。
2	新加坡屬於東南亞國家，請針對小黑蚊資料進行收集；NEA 針對氫氰化物(熏蒸)法不需註冊，請查詢氫氰化物管理部門。	與國內小黑蚊之學者專家詢問有關東南亞國家針對小黑蚊出現的地區，目前新加坡尚未出現相關案例；針對氫氰化物(熏蒸)法用於控制目標生物(鼠)，主要於船艙滅鼠方面，由新加坡國家環境局(EPA)管理之氰化氫(燻蒸)法(Hydrogen Cyanide (Fumigation) Act)所規範，採用此方法不需在 CVPA 規範下進行註冊。
3	工作進度報告主要收集以往未收集的泰國、印尼、新加坡與越南等國家環境用藥管理資訊，其餘如美國、歐盟等其餘國家環境用藥比較於期中、期末時提出完整比較表。	針對各國環境用藥相關法規規範完整比較表，請參閱報告 2.6 章節。
4	環境用藥宣導品其書籤內容以簡單明瞭為主；海報發送則以賣場為主；便利貼或便條紙以標題明顯，並可於紙張印製浮水印的宣導內容。	書籤內容設計以簡單明瞭方式製作；海報設計主題為如何購買環境用藥為主；便利貼及便條紙的設計會注意標題的明顯度，並以浮水印方式製作，宣導品樣式請參閱 3.4 章節。
5	繪圖比賽活動內容提到將畫作貼於黑色硬卡指可能不方便寄送，建議可提供光碟電子檔，於複審時再進行彩色掃描列印供委員審核；徵圖比賽審查可邀請動漫文創交流協會陳治華理事長提供相關資訊及協助。	已調整徵件寄送方式，並於比賽審查時邀請動漫文創交流協會理事長一同參與，報告內容請參閱 3.2 章節。
6	環境用藥性別問卷調查內容可以特定環境用藥劑型為主。	問卷設計主要以環境用藥產品劑型及選購習慣，進行問卷調查內容規劃，請參閱 6.7 章節。

附件三

期中報告會議審查回覆意見

「環境用藥安全管理執行計畫」

期中報告會議審查意見及回覆

◆ 王順成 委員

項次	審查意見	意見回覆
1	有關泰國環衛用藥管理資料太簡略，希望再補充。	針對泰國環境用藥管理規定調查評析，已加入管理背景、網站架構、註冊申請標準及流程等其他相關資料，請參閱 2.2-1 章節。
2	印尼環衛用藥是否與一般農藥混合的管理，請於文章中說明。	於印尼環境用藥管理規定，環境用藥納入農藥管理規範下，請參閱 2.2 章節。
3	文中 Pesticide 翻為殺蟲劑易與原殺蟲劑(Insecticide)混淆，是否另尋合適之翻譯名詞，以免全文混淆不清。	針對報告中的各國環境用藥代表名詞，因各國管理規範不盡相同，採用除害劑加上(Pesticide)撰寫。
4	第 2-11 頁表 2-1、表 2-2 殺蟲劑之普通名翻譯是否正確，應再確認。	針對各國環境用藥禁用、限制使用名單，調整採原文置於內文中，並於章節後備註資料來源出處。
5	第 2-22 頁越南環衛用藥管理之資料僅有網站，未將網站之主要管理內容摘出，請補充。	針對越南環境用藥管理資料，已加入管理背景、註冊申請標準及流程等其他相關資料，請參閱 2.2-3 章節。
6	第 3-16 頁未列出環境用藥專業領域學界老師名單，請補充。	安全使用環境衛生用藥繪圖比賽環境用藥專業領域學界老師，已將環境用藥專業領域老師加入內文中，請參閱 3.2 章節。
7	第 4-2 頁引言人應增加，以擴大研討會之參與度。	環境用藥技術應用研討會，於引言人部分已進行調整，並依據合約規定邀請共計 12 名，包含主持人與演講者，請參閱第四章。
8	第 6-2 頁 OECD 420 之翻譯請附原文以為校正比對應用。	於交辦事項中翻譯 OECD 420 之翻譯原文已加入附件，請參閱附件二十一。

◆ 張念台 委員

項次	審查意見	意見回覆
1	期中報告前，請列出執行計畫名稱、期限、負責人等資料。	於期末報告已加入報告摘要，包含計畫名稱、期限、負責人等資料等相關資料。
2	有關辦理國際環衛用藥法規之調查評析，請： (1)注意不同國家負責環衛之主管機關為何 (2)專有名詞正確性 (3)建議要有專家審核計畫	針對各國環境衛生用藥之主管機關，已先向業務單位確認各國的主管機關是否正確；於專有名詞如有翻譯名詞將以前翻譯名詞（原文名詞）方式撰寫；專家審核計畫請參閱 2.6 章節。
3	有關網頁建置，宜注意： (1)資料之正確性 (2)讀者需求 (3)親和性	於環境用藥安全使用網站網頁內容，於上架前資料內容皆由署內進行內容審閱，已確立資料的正確度；針對讀者需求，已搭配性別研究調查問卷了解民眾於環境用藥相關需求來增加網頁主題，請參閱 3.1 章節。
4	實驗室參訪，宜： (1)確立目標為何、目的為何 (2)是否以參訪為本署未來訂定藥效試驗室標準之先期工作	實驗室參訪首要為參觀國內藥效實驗室設施操作流程，後續研擬比照國內其他合格實驗室，核發環境用藥藥效實驗室許可，並預計修正環境衛生用藥藥效測試通則規範，以健全國內藥效實驗室完整制度。

◆ 黃紹毅老師

項次	審查意見	意見回覆
1	本計畫之一重點工作為收集並分析國際間環境用藥管理之最新法令規定。結果列在第 2-1~2-27 頁。個人認為，這整個工作之目的及範圍可能要再進一步釐清。如第二章標題為...環境用藥許可管理法規之調查評析，章節 2.1 為...最新法令規定，章節 2.1-1~2.1-5 則為...相關環境用藥管理。整體的感覺有一點亂，而且有一些國家的資料多，有些國家資料很少。另外，有一些資料並非英文呈現。不知執行單位如何取舍呈現資料？	針對國際間環境用藥管理之最新法令，已增加本年度應完成的工作項目，藉以清楚了解本年度工作項目所擬定收集目標及內容方向；章節項目亦已進行調整，並且針對各國的法規資訊增加相關管理規章，製作完整國別資料比較表，請參閱 2.5 章節；後續針對表單附件將放置原文於附件提供比對參考。
2	在章節 2.2 部分，內文與標題好像不是很對應，麻煩在檢討是否要如此呈現。	已進行章節架構調整，章節已分為替代物資收集及提出建議採行措施、環境用藥國際法規管理資訊專家會前審核流程。
3	在章節 2.3 部分，第一段有關與國內管理政策措施進行比較部分，目前還尚未見到比較部分。此部分為整個計畫的重點，即為找出彼此的優缺點，以供學習改進。但以目前資料收集、呈現的方式來看，尚未發現具體的結果。同時，建議於期末報告時，將每一個(含台灣)之管理方法以表格列出，並具體比較評析每一項目。	已於 2.5 章節中加入國內外制度管理規範比較分析表，以利分析檢討國內外法令規章之優缺點並提出相關建議。
4	有關網站部分，在面對國際化的需求下，是不是可以考慮加入英文版本。	於國際化英文網站的需求，與業務單位協調是否針對英文網頁內容進行英文網頁架設。

◆ 袁中新 委員

項次	審查意見	意見回覆
1	建議於期中報告中增列工作執行成果摘要。	已於期末報告已加入報告摘要，包含計畫名稱、期限、負責人等資料等相關資料。
2	實際工作狀況較難和預定工作進行比較，建議採用甘特圖呈現。	報告格式為依據環保署合約格式進行撰寫，針對委員的建議，納入本團隊後續報告寫法進度呈現方式參考。
3	「用藥使用宣導及安全使用網站」之內容豐富，唯應在期中報告中描述瀏覽人數及曝光度，以彰顯其成效。	安全使用環境用藥宣導網站於本年度改版後加入網站計數器，截至 100 年 11 月 24 日網站約一萬七千人瀏覽，文章內容請參閱 3.1 章節。
4	「安全使用環境衛生用藥繪圖比賽」採專家評審及網站票選併用方式，其權重如何分配？又應如何避免網站票選時發生重複計票等灌水情形？	針對專家評審及網路票選，由專家評審進行第一名、第二名、第三名以及佳作五名與評審團特別獎五名，網路票選投票則為參加投稿且符合初審規則，於安全使用環境衛生用藥繪圖比賽開放全民投票，採投票數最高前十名；針對灌票防堵的方式，採用填寫真實姓名、手機與正確之電子郵件信箱，且加入驗證碼的填寫，並於投票完畢需置信箱進行確認信函的回覆，加上 IP 位址比對，可達到灌票防堵問題產生。
5	「環境用藥技術應用研討會」之進度為 50%，應詳細說明目前已完成之工作項目及內容。	環境用藥技術應用研討會已於 10 月份完成辦理，研討會完成之工作項目與內容，請參閱報告第四章節。
6	建議針對環境用藥藥效實驗室參訪之實際成果及收獲成效加以說明及描述。	環境用藥藥效實驗室參訪成果成效請參閱報告第五章。
7	整體而言，本計畫其中量化目標多已達成，但仍應加強報告內容之品質及深度。	針對報告的內容，於期末報告已增加章節內容並強化各國法規資料資料。

附件四

期末報告會議審查回覆意見

「環境用藥安全管理執行計畫」

期末報告會議審查意見及回覆

◆ 王順成 委員

項次	審查意見	意見回覆
1	全文英文摘要關鍵詞太長，請修正或拆成兩或三字。	英文摘要已修正關鍵詞。
2	除害劑(pesticide)應修正為除害物劑較為正確。	經與專家學者顧問詢問後，目前徐爾烈教授建議 pesticide 之中譯名稱仍以「除害劑」撰寫較適當。
3	第 2-11 頁，泰國管理法規依據與目的中，採用了更好的標準和更實用的程序，請清楚說明。	此次修正較前兩次法規內容所規範的危害物質更擴大其範圍，除了管制原有規範之毒性物質，亦將工業與環境中的毒性物質納入危害物質法中加以規範，並促進各有關機構之間的合作、控制和監督危害物質的使用，請參閱月泰國環境用藥管理規定 2.2 章節。
4	第 2-19 頁，高急性毒素應改為高急性毒。殺真菌劑修正為殺菌劑即可。	高級性毒素已修正為高級性毒。殺真菌劑已修正為殺菌劑，請參閱第 2-19 頁。
5	表 2.5-2 我國之禁用環境用藥成分與各國比較，其中大部分非環境用藥成分，請修正標題。	表 2.5-2 標題修正為我國環境用藥禁止含有之成分與各國比較，表中列出的 78 項禁用成分，依據我國環境管理法之法規公告禁用成分。
6	關於建議殺鼠劑管理部分及環境用藥之管理，同意政府應成立販賣場改一小隔離專區販賣，以與世界潮流同步。	感謝委員的肯定，針對賣場獨立販賣區，會另外收集相關資訊，提供於業務單位。

◆ 張念台 委員

項次	審查意見	意見回覆
1	報告中藥劑或化學物，均請增加中文名稱。	針對有效及禁用成分，統一修正報告，增加其中文名稱。
2	Pesticide 的中文翻譯為「除害劑」或再斟酌商確後統一使用。	經與專家學者顧問詢問後，目前徐爾烈教授建議 pesticide 之中譯名稱仍以「除害劑」撰寫較適當。
3	第 2-10 頁中的 pest control operator(PCO)翻譯有誤，請更正。	PCO 之翻譯已修正為病媒防治業，請參閱報告第 2-10 頁。
4	第 2-89 與 2-90 頁中表格甚為實用，其中部份資料(如費用、年限)請再確認訂正。	針對表格內文之比較，已針對內容進行修正，請參閱表 2.5-1。
5	藥效試驗實驗室的參訪目的與成果宜再說明。	針對藥效實驗室參訪目的與成果，以增加內文成果撰述，請參閱報告第五章節。
6	第 5-7 頁，「養蟲室」誤寫「養蟲事」請更正。	已進行報告內文修正，請參閱報告 5-7 頁。
7	整體而言，本計畫執行成效良好，成果達到預期要求，建議小幅修正後通過。	感謝委員的肯定，針對委員所提出的意見，已修正於報告中。

◆ 黃紹毅老師

項次	審查意見	意見回覆
1	本計畫之一重點工作為收集並分析國際間環境用藥管理之最新法令規定，結果列在第二章。雖然在期中報告時，整體資料呈現還滿雜亂，但顯然在後續部分，環資公司已經依照審查委員建議之方向修改，所以這個部分目前做得非常好。尤其是最後將所有資料整理成第 2-89 與 2-90 兩頁，非常清楚。但此兩頁中”--- “部分代表什麼意義需註明。	感謝委員的肯定。針對”---“的意義，已補充說明於內文中，請參閱報告第 2-89 至 2-90 頁。
2	有關第 2-93 頁，表 2.5-3 部分，該等化學物質是台灣目前沒有管制禁用的嗎？如果是，為什麼台灣還沒有管制禁用？	表 2.5-3 部分為我國目前沒有管制禁用的有效成分，已於內文中補充說明。
3	有關國際間環境用藥之公約部分，參考第 2-89 頁，台灣為唯一沒有加入之國家。是政治因素或是其他因素？加入後有什麼樣的好處？如果對國家有顯著的幫助，應該建議政府積極找方法加入。	我國目前尚未加入國際間環境用藥之公約部分，為政府機關政策考量，但我國近年積極參與國際公約相關會議，以掌握全球資訊脈動。
4	有關第 2-2 頁及其他部分，將 pesticide 翻譯成除害劑部分。事實上目前對其有不同的翻譯，如殺蟲劑、農藥等。在第 2-79 頁建議以除害劑進行內文撰寫，有沒有什麼原因？	由於 pesticide 之中譯名若為殺蟲劑與 insecticide 之中譯名相同；翻譯為農藥與環境用藥理解有出入；與學者專家徐爾烈老師研討後，建議於內文撰寫時，將 pesticide 統一撰寫為「除害劑」，以避免與其他用詞混淆。
	有關環境用藥實驗室參訪結果部分，整體的份量稍嫌不足。建議是不是可以仿照分析國際間環境用藥管理之最新法令規定的方式，將所參訪之各藥效試驗室(無須具名)之相關部分，以表格方式做一些比較(如養蟲室之有無及相關養蟲設備、藥效試驗器具、及收費等資料)，提	針對藥效實驗室參訪目的與成果，以增加內文成果撰述，請參閱報告第五章節。

	供政府及相關單位做為未來制定相關規範之參考依據。	
	內文中有一些編排及文字錯誤(如第5-7 頁藥效試驗”是”等)，請校正並於正式報告時修正。	已進行報告內文修正。

◆ 袁中新 委員

項次	審查意見	意見回覆
1	請補充本計畫各工作項目之預定及實際進度，並以甘梯圖或表呈現。	已修正至報告第七章節。
2	表 2.5-2 有關我國禁用環境用藥成分與各國比較表中亦應將日本或韓國列入。	已補充日本之禁用有效成分於表 2.5-2，韓國之禁用有效成分，目前應無法收集到相關資訊，故韓國的部分無法補充至比較表中。
3	配合節慶置換網頁版面工作項目中，「世界地球日」與「端午節」版面雷同，而「父親節」與「滅鼠週」版面亦雷同，似未符合更換版面之意旨。	配合節慶置換網頁版面，主要為置換宣導網頁上方之版頭，本年度所置換網頁版頭，皆因應節慶主題進行置換。
4	第三章有關環境用藥使用宣導成效之描述過於簡略，應說明透過網頁重建，環境衛生用藥徵圖比賽、宣導產品設計及發放，究竟讓民眾的環境用藥觀念或認知提升多少？	針對民眾的環境用藥觀念或認知提升多少，透過本年度的環境用性別研究調查問卷民眾於產品購買會查看產品包裝的為 69%，其中 94% 民眾認同，本年度的宣導重點，以清掃環境來代替環境用藥，可參閱 6.7 章節。
5	環境用藥技術應用研討會之實施成效，以問卷調查方式呈現值得肯定，為在問卷分析方面，應針對全部問題進行分析，即便是出席人員身份分布也具有一定意義。	針對與會人員身分進行分析，並針對問卷設計之研討會達成原定目標、內容對與會人員助益及動線整體評價進行整體分析，請參閱報告第四章節。
6	環境用藥藥效實驗參訪成效描述過於簡略，應針對環境用藥管理相關法規及規範，彙整各實驗室之軟硬體優缺點，以及具體建議。	針對藥效實驗室參訪目的與成果，以增加內文成果撰述，請參閱報告第五章節。
7	第八章結論的格式不對，內容尚待加強。	報告書內容已修正符合合約規定格式。

◆ 業務單位

項次	審查意見	意見回覆
1	修正環境用藥安全使用性別問卷為行政院環保署進行，非” APEC” 相關問卷。	已修正刪除摘要及內文 APEC 文字。
2	第 2-1 頁，鹿特丹公約之 PIC 於 2006 年 2 月 24 日停止適用為何意，請說明。	鹿特丹公約之 PIC 為預備程序同時具有法律約束力，時間為 1989 年發起至 2006 年 2 月 24 日，由於鹿特丹公約於 2004 年施行，故原先為預備程序之 PCI 之效期，已於 2006 年 2 月 24 日停止適用。
3	第 2-89 與 2-90 頁，請補齊各國許可證之有效期限與各國法規之英文名稱，及其內容修訂。	已於報告中補充各國許可證之有效期限與各國法規之英文名稱，並進行內容修訂。
4	補充歐盟對二氯苯、萘之限用禁用說明。	歐盟對二氯苯、萘之限用禁用狀況，請參閱 6.5 章節。
5	宣導品為” 各” 1000 份，請更正。	已進行宣導品份數修正。
6	第 2-32 頁，印尼臨時許可證展延次數為何？” 永久” 許可證之翻譯名詞確認並修正。	印尼臨時許可證可展延一次（年限為一年）。 ” 永久 ” 許可證之英譯為”permanent/fixed license”，已將中譯名詞修正為” 固定” 許可證。

光碟附件

附件一

2011 年鹿特丹公約修正版



ROTTERDAM CONVENTION

**on the Prior Informed Consent Procedure
for Certain Hazardous Chemicals
and Pesticides in International Trade**

TEXT AND ANNEXES

(Revised in 2011)



INTRODUCTION

The dramatic growth in chemicals production and trade during the past three decades has raised both public and official concern about the potential risks posed by hazardous chemicals and pesticides. Countries lacking adequate infrastructure to monitor the import and use of these chemicals are particularly vulnerable.

In response to these concerns, the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) started developing and promoting voluntary information-exchange programmes in the mid 1980's. FAO launched its International Code of Conduct on the Distribution and Use of Pesticides in 1985 and UNEP set up the London Guidelines for the Exchange of Information on Chemicals in International Trade in 1987.

Soon after, the two organizations jointly introduced the 1989 Prior Informed Consent (PIC) procedure. Jointly implemented by FAO and UNEP this programme has helped to ensure that governments have the information they need about hazardous chemicals for assessing risks and taking informed decisions on chemical imports.

Seeing the need for mandatory controls, officials attending the 1992 Rio Summit adopted Chapter 19 of Agenda 21, which called for the adoption of a legally binding instrument on the PIC procedure by the year 2000. Consequently, the FAO Council (in 1994) and the UNEP Governing Council (in 1995) mandated their executive heads to launch negotiations which lead to the finalization of the text of the Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals in International Trade in March 1998.

The Convention was adopted and opened for signature at a Conference of Plenipotentiaries in Rotterdam on 10 September 1998 and entered into force on 24 February 2004.

The first Conference of the Parties to the Rotterdam Convention (COP-1) was held in September 2004 resulting in the addition of 14 chemicals to

Annex III (decision RC-1/3) and the adoption of Annex VI on arbitration and conciliation (decision RC-1/11). The amendments to Annex III entered into force on 1 February 2005, except the deletion of the existing entries for certain severely hazardous formulations of Monocrotophos and Parathion that entered into force on 1 January 2006. Annex VI, as communicated to all Parties by the Depositary, entered into force on 11 January 2006 in accordance with paragraph 3 of Article 22 of the Convention.

The fourth Conference of the Parties (COP-4) was held in October 2008 resulting in the addition of one chemical (all tributyltin compounds) to Annex III (decision RC-4/5). This amendment to Annex III entered into force on 1 February 2009.

The fifth Conference of the Parties (COP-5) was held in June 2011 resulting in the addition of three chemicals (alachlor, aldicarb and endosulfan) to Annex III (decisions RC-5/3, RC-5/4 and RC-5/5). These amendments to Annex III entered into force on 24 October 2011.

FAO and UNEP jointly perform the Secretariat functions for the Rotterdam Convention. Should you wish to obtain additional information about the Rotterdam Convention, please consult the website at www.pic.int.

**ROTTERDAM CONVENTION ON THE PRIOR INFORMED CONSENT
PROCEDURE FOR CERTAIN HAZARDOUS CHEMICALS AND PESTICIDES
IN INTERNATIONAL TRADE**

The Parties to this Convention,

Aware of the harmful impact on human health and the environment from certain hazardous chemicals and pesticides in international trade,

Recalling the pertinent provisions of the Rio Declaration on Environment and Development and chapter 19 of Agenda 21 on “Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products”,

Mindful of the work undertaken by the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) in the operation of the voluntary Prior Informed Consent procedure, as set out in the UNEP Amended London Guidelines for the Exchange of Information on Chemicals in International Trade (hereinafter referred to as the “Amended London Guidelines”) and the FAO International Code of Conduct on the Distribution and Use of Pesticides (hereinafter referred to as the “International Code of Conduct”),

Taking into account the circumstances and particular requirements of developing countries and countries with economies in transition, in particular the need to strengthen national capabilities and capacities for the management of chemicals, including transfer of technology, providing financial and technical assistance and promoting cooperation among the Parties,

Noting the specific needs of some countries for information on transit movements,

Recognizing that good management practices for chemicals should be promoted in all countries, taking into account, inter alia, the voluntary standards laid down in the International Code of Conduct and the UNEP Code of Ethics on the International Trade in Chemicals,

Desiring to ensure that hazardous chemicals that are exported from their territory are packaged and labelled in a manner that is adequately protective

of human health and the environment, consistent with the principles of the Amended London Guidelines and the International Code of Conduct,

Recognizing that trade and environmental policies should be mutually supportive with a view to achieving sustainable development,

Emphasizing that nothing in this Convention shall be interpreted as implying in any way a change in the rights and obligations of a Party under any existing international agreement applying to chemicals in international trade or to environmental protection,

Understanding that the above recital is not intended to create a hierarchy between this Convention and other international agreements,

Determined to protect human health, including the health of consumers and workers, and the environment against potentially harmful impacts from certain hazardous chemicals and pesticides in international trade,

Have agreed as follows:

ARTICLE 1

Objective

The objective of this Convention is to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

ARTICLE 2

Definitions

For the purposes of this Convention:

(a) “Chemical” means a substance whether by itself or in a mixture or preparation and whether manufactured or obtained from nature, but does not

include any living organism. It consists of the following categories: pesticide (including severely hazardous pesticide formulations) and industrial;

(b) “Banned chemical” means a chemical all uses of which within one or more categories have been prohibited by final regulatory action, in order to protect human health or the environment. It includes a chemical that has been refused approval for first-time use or has been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process and where there is clear evidence that such action has been taken in order to protect human health or the environment;

(c) “Severely restricted chemical” means a chemical virtually all use of which within one or more categories has been prohibited by final regulatory action in order to protect human health or the environment, but for which certain specific uses remain allowed. It includes a chemical that has, for virtually all use, been refused for approval or been withdrawn by industry either from the domestic market or from further consideration in the domestic approval process, and where there is clear evidence that such action has been taken in order to protect human health or the environment;

(d) “Severely hazardous pesticide formulation” means a chemical formulated for pesticidal use that produces severe health or environmental effects observable within a short period of time after single or multiple exposure, under conditions of use;

(e) “Final regulatory action” means an action taken by a Party, that does not require subsequent regulatory action by that Party, the purpose of which is to ban or severely restrict a chemical;

(f) “Export” and “import” mean, in their respective connotations, the movement of a chemical from one Party to another Party, but exclude mere transit operations;

(g) “Party” means a State or regional economic integration organization that has consented to be bound by this Convention and for which the Convention is in force;

(h) “Regional economic integration organization” means an organization constituted by sovereign States of a given region to which its member States have transferred competence in respect of matters governed by this Convention

and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to this Convention;

(i) “Chemical Review Committee” means the subsidiary body referred to in paragraph 6 of Article 18.

ARTICLE 3

Scope of the Convention

1. This Convention applies to:

- (a) Banned or severely restricted chemicals; and
- (b) Severely hazardous pesticide formulations.

2. This Convention does not apply to:

- (a) Narcotic drugs and psychotropic substances;
- (b) Radioactive materials;
- (c) Wastes;
- (d) Chemical weapons;
- (e) Pharmaceuticals, including human and veterinary drugs;
- (f) Chemicals used as food additives;
- (g) Food;
- (h) Chemicals in quantities not likely to affect human health or the environment provided they are imported:
 - (i) For the purpose of research or analysis; or
 - (ii) By an individual for his or her own personal use in quantities reasonable for such use.

ARTICLE 4

Designated national authorities

1. Each Party shall designate one or more national authorities that shall be authorized to act on its behalf in the performance of the administrative functions required by this Convention.

2. Each Party shall seek to ensure that such authority or authorities have sufficient resources to perform their tasks effectively.

3. Each Party shall, no later than the date of the entry into force of this Convention for it, notify the name and address of such authority or authorities

to the Secretariat. It shall forthwith notify the Secretariat of any changes in the name and address of such authority or authorities.

4. The Secretariat shall forthwith inform the Parties of the notifications it receives under paragraph 3.

ARTICLE 5

Procedures for banned or severely restricted chemicals

1. Each Party that has adopted a final regulatory action shall notify the Secretariat in writing of such action. Such notification shall be made as soon as possible, and in any event no later than ninety days after the date on which the final regulatory action has taken effect, and shall contain the information required by Annex I, where available.

2. Each Party shall, at the date of entry into force of this Convention for it, notify the Secretariat in writing of its final regulatory actions in effect at that time, except that each Party that has submitted notifications of final regulatory actions under the Amended London Guidelines or the International Code of Conduct need not resubmit those notifications.\

3. The Secretariat shall, as soon as possible, and in any event no later than six months after receipt of a notification under paragraphs 1 and 2, verify whether the notification contains the information required by Annex I. If the notification contains the information required, the Secretariat shall forthwith forward to all Parties a summary of the information received. If the notification does not contain the information required, it shall inform the notifying Party accordingly.

4. The Secretariat shall every six months communicate to the Parties a synopsis of the information received pursuant to paragraphs 1 and 2, including information regarding those notifications which do not contain all the information required by Annex I.

5. When the Secretariat has received at least one notification from each of two Prior Informed Consent regions regarding a particular chemical that it has verified meet the requirements of Annex I, it shall forward them to the Chemical Review Committee. The composition of the Prior Informed Consent regions shall be defined in a decision to be adopted by consensus at the first meeting of the Conference of the Parties.

6. The Chemical Review Committee shall review the information provided in such notifications and, in accordance with the criteria set out in Annex II, recommend to the Conference of the Parties whether the chemical in question should be made subject to the Prior Informed Consent procedure and, accordingly, be listed in Annex III.

ARTICLE 6

Procedures for severely hazardous pesticide formulations

1. Any Party that is a developing country or a country with an economy in transition and that is experiencing problems caused by a severely hazardous pesticide formulation under conditions of use in its territory, may propose to the Secretariat the listing of the severely hazardous pesticide formulation in Annex III. In developing a proposal, the Party may draw upon technical expertise from any relevant source. The proposal shall contain the information required by part I of Annex IV.

2. The Secretariat shall, as soon as possible, and in any event no later than six months after receipt of a proposal under paragraph 1, verify whether the proposal contains the information required by part I of Annex IV. If the proposal contains the information required, the Secretariat shall forthwith forward to all Parties a summary of the information received. If the proposal does not contain the information required, it shall inform the proposing Party accordingly.

3. The Secretariat shall collect the additional information set out in part 2 of Annex IV regarding the proposal forwarded under paragraph 2.

4. When the requirements of paragraphs 2 and 3 above have been fulfilled with regard to a particular severely hazardous pesticide formulation, the Secretariat shall forward the proposal and the related information to the Chemical Review Committee.

5. The Chemical Review Committee shall review the information provided in the proposal and the additional information collected and, in accordance with the criteria set out in part 3 of Annex IV, recommend to the Conference of the Parties whether the severely hazardous pesticide formulation in question should be made subject to the Prior Informed Consent procedure and, accordingly, be listed in Annex III.

ARTICLE 7

Listing of chemicals in Annex III

1. For each chemical that the Chemical Review Committee has decided to recommend for listing in Annex III, it shall prepare a draft decision guidance document. The decision guidance document should, at a minimum, be based on the information specified in Annex I, or, as the case may be, Annex IV, and include information on uses of the chemical in a category other than the category for which the final regulatory action applies.

2. The recommendation referred to in paragraph 1 together with the draft decision guidance document shall be forwarded to the Conference of the Parties. The Conference of the Parties shall decide whether the chemical should be made subject to the Prior Informed Consent procedure and, accordingly, list the chemical in Annex III and approve the draft decision guidance document.

3. When a decision to list a chemical in Annex III has been taken and the related decision guidance document has been approved by the Conference of the Parties, the Secretariat shall forthwith communicate this information to all Parties.

ARTICLE 8

Chemicals in the voluntary Prior Informed Consent procedure

For any chemical, other than a chemical listed in Annex III, that has been included in the voluntary Prior Informed Consent procedure before the date of the first meeting of the Conference of the Parties, the Conference of the Parties shall decide at that meeting to list the chemical in Annex III, provided that it is satisfied that all the requirements for listing in that Annex have been fulfilled.

ARTICLE 9

Removal of chemicals from Annex III

1. If a Party submits to the Secretariat information that was not available at the time of the decision to list a chemical in Annex III and that information indicates that its listing may no longer be justified in accordance with the relevant criteria in Annex II or, as the case may be, Annex IV, the Secretariat shall forward the information to the Chemical Review Committee.

2. The Chemical Review Committee shall review the information it receives under paragraph 1. For each chemical that the Chemical Review Committee decides, in accordance with the relevant criteria in Annex II or, as the case may be, Annex IV, to recommend for removal from Annex III, it shall prepare a revised draft decision guidance document.

3. A recommendation referred to in paragraph 2 shall be forwarded to the Conference of the Parties and be accompanied by a revised draft decision guidance document. The Conference of the Parties shall decide whether the chemical should be removed from Annex III and whether to approve the revised draft decision guidance document.

4. When a decision to remove a chemical from Annex III has been taken and the revised decision guidance document has been approved by the Conference of the Parties, the Secretariat shall forthwith communicate this information to all Parties.

ARTICLE 10

Obligations in relation to imports of chemicals listed in Annex III

1. Each Party shall implement appropriate legislative or administrative measures to ensure timely decisions with respect to the import of chemicals listed in Annex III.

2. Each Party shall transmit to the Secretariat, as soon as possible, and in any event no later than nine months after the date of dispatch of the decision guidance document referred to in paragraph 3 of Article 7, a response concerning the future import of the chemical concerned. If a Party modifies this response, it shall forthwith submit the revised response to the Secretariat.

3. The Secretariat shall, at the expiration of the time period in paragraph 2, forthwith address to a Party that has not provided such a response, a written request to do so. Should the Party be unable to provide a response, the Secretariat shall, where appropriate, help it to provide a response within the time period specified in the last sentence of paragraph 2 of Article 11.

4. A response under paragraph 2 shall consist of either:

- (a) A final decision, pursuant to legislative or administrative measures:
 - (i) To consent to import;

- (ii) Not to consent to import; or
 - (iii) To consent to import only subject to specified conditions; or
 - (b) An interim response, which may include:
 - (i) An interim decision consenting to import with or without specified conditions, or not consenting to import during the interim period;
 - (ii) A statement that a final decision is under active consideration;
 - (iii) A request to the Secretariat, or to the Party that notified the final regulatory action, for further information;
 - (iv) A request to the Secretariat for assistance in evaluating the chemical.
5. A response under subparagraphs (a) or (b) of paragraph 4 shall relate to the category or categories specified for the chemical in Annex III.
6. A final decision should be accompanied by a description of any legislative or administrative measures upon which it is based.
7. Each Party shall, no later than the date of entry into force of this Convention for it, transmit to the Secretariat responses with respect to each chemical listed in Annex III. A Party that has provided such responses under the Amended London Guidelines or the International Code of Conduct need not resubmit those responses.
8. Each Party shall make its responses under this Article available to those concerned within its jurisdiction, in accordance with its legislative or administrative measures.
9. A Party that, pursuant to paragraphs 2 and 4 above and paragraph 2 of Article II, takes a decision not to consent to import of a chemical or to consent to its import only under specified conditions shall, if it has not already done so, simultaneously prohibit or make subject to the same conditions:
- (a) Import of the chemical from any source; and
 - (b) Domestic production of the chemical for domestic use.
10. Every six months the Secretariat shall inform all Parties of the responses it has received. Such information shall include a description of the legislative or administrative measures on which the decisions have been based, where available. The Secretariat shall, in addition, inform the Parties of any cases of failure to transmit a response.

ARTICLE 11

Obligations in relation to exports of chemicals listed in Annex III

I. Each exporting Party shall:

- (a) Implement appropriate legislative or administrative measures to communicate the responses forwarded by the Secretariat in accordance with paragraph 10 of Article 10 to those concerned within its jurisdiction;
- (b) Take appropriate legislative or administrative measures to ensure that exporters within its jurisdiction comply with decisions in each response no later than six months after the date on which the Secretariat first informs the Parties of such response in accordance with paragraph 10 of Article 10;
- (c) Advise and assist importing Parties, upon request and as appropriate:
 - (i) To obtain further information to help them to take action in accordance with paragraph 4 of Article 10 and paragraph 2 (c) below; and
 - (ii) To strengthen their capacities and capabilities to manage chemicals safely during their life-cycle.

2. Each Party shall ensure that a chemical listed in Annex III is not exported from its territory to any importing Party that, in exceptional circumstances, has failed to transmit a response or has transmitted an interim response that does not contain an interim decision, unless:

- (a) It is a chemical that, at the time of import, is registered as a chemical in the importing Party; or
- (b) It is a chemical for which evidence exists that it has previously been used in, or imported into, the importing Party and in relation to which no regulatory action to prohibit its use has been taken; or
- (c) Explicit consent to the import has been sought and received by the exporter through a designated national authority of the importing Party. The importing Party shall respond to such a request within sixty days and shall promptly notify the Secretariat of its decision.

The obligations of exporting Parties under this paragraph shall apply with effect from the expiration of a period of six months from the date on which the

Secretariat first informs the Parties, in accordance with paragraph 10 of Article 10, that a Party has failed to transmit a response or has transmitted an interim response that does not contain an interim decision, and shall apply for one year.

ARTICLE 12

Export notification

1. Where a chemical that is banned or severely restricted by a Party is exported from its territory, that Party shall provide an export notification to the importing Party. The export notification shall include the information set out in Annex V.

2. The export notification shall be provided for that chemical prior to the first export following adoption of the corresponding final regulatory action. Thereafter, the export notification shall be provided before the first export in any calendar year. The requirement to notify before export may be waived by the designated national authority of the importing Party.

3. An exporting Party shall provide an updated export notification after it has adopted a final regulatory action that results in a major change concerning the ban or severe restriction of that chemical.

4. The importing Party shall acknowledge receipt of the first export notification received after the adoption of the final regulatory action. If the exporting Party does not receive the acknowledgement within thirty days of the dispatch of the export notification, it shall submit a second notification. The exporting Party shall make reasonable efforts to ensure that the importing Party receives the second notification.

5. The obligations of a Party set out in paragraph 1 shall cease when:

- (a) The chemical has been listed in Annex III;
- (b) The importing Party has provided a response for the chemical to the Secretariat in accordance with paragraph 2 of Article 10; and
- (c) The Secretariat has distributed the response to the Parties in accordance with paragraph 10 of Article 10.

ARTICLE 13

Information to accompany exported chemicals

1. The Conference of the Parties shall encourage the World Customs Organization to assign specific Harmonized System customs codes to the individual chemicals or groups of chemicals listed in Annex III, as appropriate. Each Party shall require that, whenever a code has been assigned to such a chemical, the shipping document for that chemical bears the code when exported.

2. Without prejudice to any requirements of the importing Party, each Party shall require that both chemicals listed in Annex III and chemicals banned or severely restricted in its territory are, when exported, subject to labelling requirements that ensure adequate availability of information with regard to risks and/or hazards to human health or the environment, taking into account relevant international standards.

3. Without prejudice to any requirements of the importing Party, each Party may require that chemicals subject to environmental or health labelling requirements in its territory are, when exported, subject to labelling requirements that ensure adequate availability of information with regard to risks and/or hazards to human health or the environment, taking into account relevant international standards.

4. With respect to the chemicals referred to in paragraph 2 that are to be used for occupational purposes, each exporting Party shall require that a safety data sheet that follows an internationally recognized format, setting out the most up-to-date information available, is sent to each importer.

5. The information on the label and on the safety data sheet should, as far as practicable, be given in one or more of the official languages of the importing Party.

ARTICLE 14

Information exchange

1. Each Party shall, as appropriate and in accordance with the objective of this Convention, facilitate:

- (a) The exchange of scientific, technical, economic and legal information concerning the chemicals within the scope of this Convention, including toxicological, ecotoxicological and safety information;

- (b) The provision of publicly available information on domestic regulatory actions relevant to the objectives of this Convention; and
 - (c) The provision of information to other Parties, directly or through the Secretariat, on domestic regulatory actions that substantially restrict one or more uses of the chemical, as appropriate.
2. Parties that exchange information pursuant to this Convention shall protect any confidential information as mutually agreed.
3. The following information shall not be regarded as confidential for the purposes of this Convention:
- (a) The information referred to in Annexes I and IV, submitted pursuant to Articles 5 and 6 respectively;
 - (b) The information contained in the safety data sheet referred to in paragraph 4 of Article 13;
 - (c) The expiry date of the chemical;
 - (d) Information on precautionary measures, including hazard classification, the nature of the risk and the relevant safety advice; and
 - (e) The summary results of the toxicological and ecotoxicological tests.
4. The production date of the chemical shall generally not be considered confidential for the purposes of this Convention.
5. Any Party requiring information on transit movements through its territory of chemicals listed in Annex III may report its need to the Secretariat, which shall inform all Parties accordingly.

ARTICLE 15

Implementation of the Convention

1. Each Party shall take such measures as may be necessary to establish and strengthen its national infrastructures and institutions for the effective implementation of this Convention. These measures may include, as required,

the adoption or amendment of national legislative or administrative measures and may also include:

- (a) The establishment of national registers and databases including safety information for chemicals;
 - (b) The encouragement of initiatives by industry to promote chemical safety; and
 - (c) The promotion of voluntary agreements, taking into consideration the provisions of Article 16.
2. Each Party shall ensure, to the extent practicable, that the public has appropriate access to information on chemical handling and accident management and on alternatives that are safer for human health or the environment than the chemicals listed in Annex III.
3. The Parties agree to cooperate, directly or, where appropriate, through competent international organizations, in the implementation of this Convention at the subregional, regional and global levels.
4. Nothing in this Convention shall be interpreted as restricting the right of the Parties to take action that is more stringently protective of human health and the environment than that called for in this Convention, provided that such action is consistent with the provisions of this Convention and is in accordance with international law.

ARTICLE 16

Technical assistance

The Parties shall, taking into account in particular the needs of developing countries and countries with economies in transition, cooperate in promoting technical assistance for the development of the infrastructure and the capacity necessary to manage chemicals to enable implementation of this Convention. Parties with more advanced programmes for regulating chemicals should provide technical assistance, including training, to other Parties in developing their infrastructure and capacity to manage chemicals throughout their life-cycle.

ARTICLE 17

Non-Compliance

The Conference of the Parties shall, as soon as practicable, develop and approve procedures and institutional mechanisms for determining non-compliance with the provisions of this Convention and for treatment of Parties found to be in non-compliance.

ARTICLE 18

Conference of the Parties

1. A Conference of the Parties is hereby established.
2. The first meeting of the Conference of the Parties shall be convened by the Executive Director of UNEP and the Director-General of FAO, acting jointly, no later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference.
3. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party provided that it is supported by at least one third of the Parties.
4. The Conference of the Parties shall by consensus agree upon and adopt at its first meeting rules of procedure and financial rules for itself and any subsidiary bodies, as well as financial provisions governing the functioning of the Secretariat.
5. The Conference of the Parties shall keep under continuous review and evaluation the implementation of this Convention. It shall perform the functions assigned to it by the Convention and, to this end, shall:
 - (a) Establish, further to the requirements of paragraph 6 below, such subsidiary bodies as it considers necessary for the implementation of the Convention;
 - (b) Cooperate, where appropriate, with competent international organizations and intergovernmental and non-governmental bodies; and
 - (c) Consider and undertake any additional action that may be required for the achievement of the objectives of the Convention.

6. The Conference of the Parties shall, at its first meeting, establish a subsidiary body, to be called the Chemical Review Committee, for the purposes of performing the functions assigned to that Committee by this Convention. In this regard:

(a) The members of the Chemical Review Committee shall be appointed by the Conference of the Parties. Membership of the Committee shall consist of a limited number of government-designated experts in chemicals management. The members of the Committee shall be appointed on the basis of equitable geographical distribution, including ensuring a balance between developed and developing Parties;

(b) The Conference of the Parties shall decide on the terms of reference, organization and operation of the Committee;

(c) The Committee shall make every effort to make its recommendations by consensus. If all efforts at consensus have been exhausted, and no consensus reached, such recommendation shall as a last resort be adopted by a two-thirds majority vote of the members present and voting.

7. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not Party to this Convention, may be represented at meetings of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or nongovernmental, qualified in matters covered by the Convention, and which has informed the Secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

ARTICLE 19

Secretariat

1. A Secretariat is hereby established.

2. The functions of the Secretariat shall be:

(a) To make arrangements for meetings of the Conference of the Parties and its subsidiary bodies and to provide them with services as required;

- (b) To facilitate assistance to the Parties, particularly developing Parties and Parties with economies in transition, on request, in the implementation of this Convention;
 - (c) To ensure the necessary coordination with the secretariats of other relevant international bodies;
 - (d) To enter, under the overall guidance of the Conference of the Parties, into such administrative and contractual arrangements as may be required for the effective discharge of its functions; and
 - (e) To perform the other secretariat functions specified in this Convention and such other functions as may be determined by the Conference of the Parties.
3. The secretariat functions for this Convention shall be performed jointly by the Executive Director of UNEP and the Director-General of FAO, subject to such arrangements as shall be agreed between them and approved by the Conference of the Parties.
4. The Conference of the Parties may decide, by a three-fourths majority of the Parties present and voting, to entrust the secretariat functions to one or more other competent international organizations, should it find that the Secretariat is not functioning as intended.

ARTICLE 20

Settlement of disputes

1. Parties shall settle any dispute between them concerning the interpretation or application of this Convention through negotiation or other peaceful means of their own choice.
2. When ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a Party that is not a regional economic integration organization may declare in a written instrument submitted to the Depositary that, with respect to any dispute concerning the interpretation or application of the Convention, it recognizes one or both of the following means of dispute settlement as compulsory in relation to any Party accepting the same obligation:

(a) Arbitration in accordance with procedures to be adopted by the Conference of the Parties in an annex as soon as practicable; and

(b) Submission of the dispute to the International Court of Justice.

3. A Party that is a regional economic integration organization may make a declaration with like effect in relation to arbitration in accordance with the procedure referred to in paragraph 2 (a).

4. A declaration made pursuant to paragraph 2 shall remain in force until it expires in accordance with its terms or until three months after written notice of its revocation has been deposited with the Depositary.

5. The expiry of a declaration, a notice of revocation or a new declaration shall not in any way affect proceedings pending before an arbitral tribunal or the International Court of Justice unless the parties to the dispute otherwise agree.

6. If the parties to a dispute have not accepted the same or any procedure pursuant to paragraph 2, and if they have not been able to settle their dispute within twelve months following notification by one party to another that a dispute exists between them, the dispute shall be submitted to a conciliation commission at the request of any party to the dispute. The conciliation commission shall render a report with recommendations. Additional procedures relating to the conciliation commission shall be included in an annex to be adopted by the Conference of the Parties no later than the second meeting of the Conference.

ARTICLE 21

Amendments to the Convention

1. Amendments to this Convention may be proposed by any Party.

2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. The text of any proposed amendment shall be communicated to the Parties by the Secretariat at least six months before the meeting at which it is proposed for adoption. The Secretariat shall also communicate the proposed amendment to the signatories to this Convention and, for information, to the Depositary.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting.

4. The amendment shall be communicated by the Depositary to all Parties for ratification, acceptance or approval.

5. Ratification, acceptance or approval of an amendment shall be notified to the Depositary in writing. An amendment adopted in accordance with paragraph 3 shall enter into force for the Parties having accepted it on the ninetieth day after the date of deposit of instruments of ratification, acceptance or approval by at least three fourths of the Parties. Thereafter, the amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits its instrument of ratification, acceptance or approval of the amendment.

ARTICLE 22

Adoption and amendment of annexes

1. Annexes to this Convention shall form an integral part thereof and, unless expressly provided otherwise, a reference to this Convention constitutes at the same time a reference to any annexes thereto.

2. Annexes shall be restricted to procedural, scientific, technical or administrative matters.

3. The following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention:

(a) Additional annexes shall be proposed and adopted according to the procedure laid down in paragraphs 1, 2 and 3 of Article 21;

(b) Any Party that is unable to accept an additional annex shall so notify the Depositary, in writing, within one year from the date of communication of the adoption of the additional annex by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time withdraw a previous notification of non-acceptance in respect of an additional annex and the annex shall thereupon enter into force for that Party subject to subparagraph (c) below; and

- (c) On the expiry of one year from the date of the communication by the Depositary of the adoption of an additional annex, the annex shall enter into force for all Parties that have not submitted a notification in accordance with the provisions of subparagraph (b) above.
4. Except in the case of Annex III, the proposal, adoption and entry into force of amendments to annexes to this Convention shall be subject to the same procedures as for the proposal, adoption and entry into force of additional annexes to the Convention.
5. The following procedure shall apply to the proposal, adoption and entry into force of amendments to Annex III:
- (a) Amendments to Annex III shall be proposed and adopted according to the procedure laid down in Articles 5 to 9 and paragraph 2 of Article 21;
 - (b) The Conference of the Parties shall take its decisions on adoption by consensus;
 - (c) A decision to amend Annex III shall forthwith be communicated to the Parties by the Depositary. The amendment shall enter into force for all Parties on a date to be specified in the decision.
6. If an additional annex or an amendment to an annex is related to an amendment to this Convention, the additional annex or amendment shall not enter into force until such time as the amendment to the Convention enters into force.

ARTICLE 23

Voting

1. Each Party to this Convention shall have one vote, except as provided for in paragraph 2 below.
2. A regional economic integration organization, on matters within its competence, shall exercise its right to vote with a number of votes equal to the number of its member States that are Parties to this Convention. Such an organization shall not exercise its right to vote if any of its member States exercises its right to vote, and vice versa.

3. For the purposes of this Convention, “Parties present and voting” means Parties present and casting an affirmative or negative vote.

ARTICLE 24

Signature

This Convention shall be open for signature at Rotterdam by all States and regional economic integration organizations on 11 September 1998, and at United Nations Headquarters in New York from 12 September 1998 to 10 September 1999.

ARTICLE 25

Ratification, acceptance, approval or accession

1. This Convention shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. It shall be open for accession by States and by regional economic integration organizations from the day after the date on which the Convention is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

2. Any regional economic integration organization that becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations, one or more of whose member States is a Party to this Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.

3. In its instrument of ratification, acceptance, approval or accession, a regional economic integration organization shall declare the extent of its competence in respect of the matters governed by this Convention. Any such organization shall also inform the Depositary, who shall in turn inform the Parties, of any relevant modification in the extent of its competence.

ARTICLE 26

Entry into force

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession.
2. For each State or regional economic integration organization that ratifies, accepts or approves this Convention or accedes thereto after the deposit of the fiftieth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval or accession.
3. For the purpose of paragraphs 1 and 2, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of that organization.

ARTICLE 27

Reservations

No reservations may be made to this Convention.

ARTICLE 28

Withdrawal

1. At any time after three years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.
2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

ARTICLE 29

Depositary

The Secretary-General of the United Nations shall be the Depositary of this Convention.

ARTICLE 30

Authentic texts

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

Done at Rotterdam on this tenth day of September, one thousand nine hundred and ninety-eight.

ANNEX I
INFORMATION REQUIREMENTS FOR NOTIFICATIONS
MADE PURSUANT TO ARTICLE 5

Notifications shall include:

I. Properties, identification and uses

- (a) Common name;
- (b) Chemical name according to an internationally recognized nomenclature (for example, International Union of Pure and Applied Chemistry (IUPAC)), where such nomenclature exists;
- (c) Trade names and names of preparations;
- (d) Code numbers: Chemical Abstracts Service (CAS) number, Harmonized System customs code and other numbers;
- (e) Information on hazard classification, where the chemical is subject to classification requirements;
- (f) Use or uses of the chemical;
- (g) Physico-chemical, toxicological and ecotoxicological properties.

2. Final regulatory action

- (a) Information specific to the final regulatory action:
 - (i) Summary of the final regulatory action;
 - (ii) Reference to the regulatory document;
 - (iii) Date of entry into force of the final regulatory action;
 - (iv) Indication of whether the final regulatory action was taken on the basis of a risk or hazard evaluation and, if so, information on such evaluation, covering a reference to the relevant documentation;
 - (v) Reasons for the final regulatory action relevant to human health, including the health of consumers and workers, or the environment;
 - (vi) Summary of the hazards and risks presented by the chemical to human health, including the health of consumers and workers, or the environment and the expected effect of the final regulatory action;
- (b) Category or categories where the final regulatory action has been taken, and for each category:
 - (i) Use or uses prohibited by the final regulatory action;
 - (ii) Use or uses that remain allowed;

- (iii) Estimation, where available, of quantities of the chemical produced, imported, exported and used;
- (c) An indication, to the extent possible, of the likely relevance of the final regulatory action to other States and regions;
- (d) Other relevant information that may cover:
 - (i) Assessment of socio-economic effects of the final regulatory action;
 - (ii) Information on alternatives and their relative risks, where available, such as:
 - Integrated pest management strategies;
 - Industrial practices and processes, including cleaner technology.

ANNEX II

**CRITERIA FOR LISTING BANNED OR SEVERELY RESTRICTED
CHEMICALS IN ANNEX III**

In reviewing the notifications forwarded by the Secretariat pursuant to paragraph 5 of Article 5, the Chemical Review Committee shall:

- (a) Confirm that the final regulatory action has been taken in order to protect human health or the environment;
- (b) Establish that the final regulatory action has been taken as a consequence of a risk evaluation. This evaluation shall be based on a review of scientific data in the context of the conditions prevailing in the Party in question. For this purpose, the documentation provided shall demonstrate that:
 - (i) Data have been generated according to scientifically recognized methods;
 - (ii) Data reviews have been performed and documented according to generally recognized scientific principles and procedures;
 - (iii) The final regulatory action was based on a risk evaluation involving prevailing conditions within the Party taking the action;
- (c) Consider whether the final regulatory action provides a sufficiently broad basis to merit listing of the chemical in Annex III, by taking into account:
 - (i) Whether the final regulatory action led, or would be expected to lead, to a significant decrease in the quantity of the chemical used or the number of its uses;
 - (ii) Whether the final regulatory action led to an actual reduction of risk or would be expected to result in a significant reduction of risk for human health or the environment of the Party that submitted the notification;
 - (iii) Whether the considerations that led to the final regulatory action being taken are applicable only in a limited geographical area or in other limited circumstances;
 - (iv) Whether there is evidence of ongoing international trade in the chemical;
- (d) Take into account that intentional misuse is not in itself an adequate reason to list a chemical in Annex III.

Annex III¹**CHEMICALS SUBJECT TO THE PRIOR INFORMED CONSENT PROCEDURE**

CHEMICAL	RELEVANT CAS NUMBER(S)	CATEGORY
2,4,5-T and its salts and esters	93-76-5*	Pesticide
Alachlor	15972-60-8	Pesticide
Aldicarb	116-06-3	Pesticide
Aldrin	309-00-2	Pesticide
Binapacryl	485-31-4	Pesticide
Captafol	2425-06-1	Pesticide
Chlordane	57-74-9	Pesticide
Chlordimeform	6164-98-3	Pesticide
Chlorobenzilate	510-15-6	Pesticide
DDT	50-29-3	Pesticide
Dieldrin	60-57-1	Pesticide
Dinitro- <i>ortho</i> -cresol (DNOC) and its salts (such as ammonium salt, potassium salt and sodium salt)	534-52-1 2980-64-5 5787-96-2 2312-76-7	Pesticide
Dinoseb and its salts and esters	88-85-7*	Pesticide
1,2-dibromoethane (EDB)	106-93-4	Pesticide
Endosulfan	115-29-7	Pesticide
Ethylene dichloride	107-06-2	Pesticide
Ethylene oxide	75-21-8	Pesticide
Fluoroacetamide	640-19-7	Pesticide
HCH (mixed isomers)	608-73-1	Pesticide
Heptachlor	76-44-8	Pesticide
Hexachlorobenzene	118-74-1	Pesticide

¹ As amended by the Conference of the Parties by its decisions RC-1/3 of 24 September 2004, RC-4/5 of 31 October 2008 and RC-5/3, RC-5/4 and RC-5/5 of 24 June 2011.

CHEMICAL	RELEVANT CAS NUMBER(S)	CATEGORY
Lindane	58-89-9	Pesticide
Mercury compounds, including inorganic mercury compounds, alkyl mercury compounds and alkyloxyalkyl and aryl mercury compounds		Pesticide
Monocrotophos	6923-22-4	Pesticide
Parathion	56-38-2	Pesticide
Pentachlorophenol and its salts and esters	87-86-5*	Pesticide
Toxaphene	8001-35-2	Pesticide
All tributyltin compounds including: – Tributyltin oxide – Tributyltin fluoride – Tributyltin methacrylate – Tributyltin benzoate – Tributyltin chloride – Tributyltin linoleate – Tributyltin naphthenate	56-35-9 1983-10-4 2155-70-6 4342-36-3 1461-22-9 24124-25-2 85409-17-2	Pesticide
Dustable powder formulations containing a combination of: – Benomyl at or above 7 per cent, – Carbofuran at or above 10 per cent, – Thiram at or above 15 per cent	17804-35-2 1563-66-2 137-26-8	Severely hazardous pesticide formulation
Methamidophos (soluble liquid formulations of the substance that exceed 600 g active ingredient/l)	10265-92-6	Severely hazardous pesticide formulation
Phosphamidon (soluble liquid formulations of the substance that exceed 1000 g active ingredient/l)	13171-21-6 (mixture, (E)&(Z) isomers) 23783-98-4 ((Z)-isomer) 297-99-4 ((E)-isomer)	Severely hazardous pesticide formulation
Methyl-parathion (emulsifiable concentrates (EC) at or above 19.5% active ingredient and dusts at or above 1.5% active ingredient)	298-00-0	Severely hazardous pesticide formulation

CHEMICAL	RELEVANT CAS NUMBER(S)	CATEGORY
Asbestos:		
– Actinolite	77536-66-4	Industrial
– Anthophyllite	77536-67-5	Industrial
– Amosite	12172-73-5	Industrial
– Crocidolite	12001-28-4	Industrial
– Tremolite	77536-68-6	Industrial
Polybrominated biphenyls (PBB)	36355-01-8 (hexa-) 27858-07-7 (octa-) 13654-09-6 (deca-)	Industrial
Polychlorinated biphenyls (PCB)	1336-36-3	Industrial
Polychlorinated terphenyls (PCT)	61788-33-8	Industrial
Tetraethyl lead	78-00-2	Industrial
Tetramethyl lead	75-74-1	Industrial
Tris (2,3-dibromopropyl) phosphate	126-72-7	Industrial

* Only the CAS numbers of parent compounds are listed. For a list of other relevant CAS numbers, reference may be made to the relevant decision guidance document.

ANNEX IV
INFORMATION AND CRITERIA FOR LISTING SEVERELY HAZARDOUS
PESTICIDE FORMULATIONS IN ANNEX III

Part 1. Documentation required from a proposing Party

Proposals submitted pursuant to paragraph 1 of Article 6 shall include adequate documentation containing the following information:

- (a) Name of the hazardous pesticide formulation;
- (b) Name of the active ingredient or ingredients in the formulation;
- (c) Relative amount of each active ingredient in the formulation;
- (d) Type of formulation;
- (e) Trade names and names of the producers, if available;
- (f) Common and recognized patterns of use of the formulation within the proposing Party;
- (g) A clear description of incidents related to the problem, including the adverse effects and the way in which the formulation was used;
- (h) Any regulatory, administrative or other measure taken, or intended to be taken, by the proposing Party in response to such incidents.

Part 2. Information to be collected by the Secretariat

Pursuant to paragraph 3 of Article 6, the Secretariat shall collect relevant information relating to the formulation, including:

- (a) The physico-chemical, toxicological and ecotoxicological properties of the formulation;
- (b) The existence of handling or applicator restrictions in other States;
- (c) Information on incidents related to the formulation in other States;
- (d) Information submitted by other Parties, international organizations, non-governmental organizations or other relevant sources, whether national or international;
- (e) Risk and/or hazard evaluations, where available;

- (f) Indications, if available, of the extent of use of the formulation, such as the number of registrations or production or sales quantity;
- (g) Other formulations of the pesticide in question, and incidents, if any, relating to these formulations;
- (h) Alternative pest-control practices;
- (i) Other information which the Chemical Review Committee may identify as relevant.

Part 3. Criteria for listing severely hazardous pesticide formulations in Annex III

In reviewing the proposals forwarded by the Secretariat pursuant to paragraph 5 of Article 6, the Chemical Review Committee shall take into account:

- (a) The reliability of the evidence indicating that use of the formulation, in accordance with common or recognized practices within the proposing Party, resulted in the reported incidents;
- (b) The relevance of such incidents to other States with similar climate, conditions and patterns of use of the formulation;
- (c) The existence of handling or applicator restrictions involving technology or techniques that may not be reasonably or widely applied in States lacking the necessary infrastructure;
- (d) The significance of reported effects in relation to the quantity of the formulation used;
- (e) That intentional misuse is not in itself an adequate reason to list a formulation in Annex III.

ANNEX V

INFORMATION REQUIREMENTS FOR EXPORT NOTIFICATION

I. Export notifications shall contain the following information:

- (a) Name and address of the relevant designated national authorities of the exporting Party and the importing Party;
- (b) Expected date of export to the importing Party;
- (c) Name of the banned or severely restricted chemical and a summary of the information specified in Annex I that is to be provided to the Secretariat in accordance with Article 5. Where more than one such chemical is included in a mixture or preparation, such information shall be provided for each chemical;
- (d) A statement indicating, if known, the foreseen category of the chemical and its foreseen use within that category in the importing Party;
- (e) Information on precautionary measures to reduce exposure to, and emission of, the chemical;
- (f) In the case of a mixture or a preparation, the concentration of the banned or severely restricted chemical or chemicals in question;
- (g) Name and address of the importer;
- (h) Any additional information that is readily available to the relevant designated national authority of the exporting Party that would be of assistance to the designated national authority of the importing Party.

2. In addition to the information referred to in paragraph I, the exporting Party shall provide such further information specified in Annex I as may be requested by the importing Party.

ANNEX VI²
SETTLEMENTS OF DISPUTES

A. Rules on arbitration

The arbitration procedure for purposes of paragraph 2 (a) of article 20 of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade shall be as follows:

ARTICLE 1

1. A Party may initiate recourse to arbitration in accordance with article 20 of the Convention by written notification addressed to the other Party to the dispute. The notification shall be accompanied by a statement of the claim, together with any supporting documents, and shall state the subject matter for arbitration including, in particular, the articles of the Convention the interpretation or application of which are at issue.

2. The claimant Party shall notify the secretariat that the Parties are referring a dispute to arbitration pursuant to article 20. The written notification of the claimant Party shall be accompanied by the statement of claim and the supporting documents referred to in paragraph 1 above. The secretariat shall forward the information thus received to all Parties.

ARTICLE 2

1. In disputes between two Parties, an Arbitral Tribunal shall be established. It shall consist of three members.

2. Each of the Parties to the dispute shall appoint an arbitrator and the two arbitrators so appointed shall designate by common agreement the third arbitrator, who shall be the President of the Tribunal. The President of the Tribunal shall not be a national of one of the Parties to the dispute, nor have his or her usual place of residence in the territory of one of these Parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

² Adopted by the First Meeting of the Conference of the Parties by its decision RC-1/11 of 24 September 2004.

3. In disputes between more than two Parties, Parties in the same interest shall appoint one arbitrator jointly by agreement.

4. Any vacancy shall be filled in the manner prescribed for the initial appointment.

5. If the Parties do not agree on the subject matter of the dispute before the President of the Arbitral Tribunal is designated, the Arbitral Tribunal shall determine the subject matter.

ARTICLE 3

1. If one of the Parties to the dispute does not appoint an arbitrator within two months of the date on which the respondent Party receives the notification of the arbitration, the other Party may inform the Secretary-General of the United Nations who shall make the designation within a further two-month period.

2. If the President of the Arbitral Tribunal has not been designated within two months of the date of the appointment of the second arbitrator, the Secretary-General of the United Nations shall, at the request of a Party, designate the President within a further two-month period.

ARTICLE 4

The Arbitral Tribunal shall render its decisions in accordance with the provisions of the Convention and international law.

ARTICLE 5

Unless the parties to the dispute agree otherwise, the Arbitral Tribunal shall determine its own rules of procedure.

ARTICLE 6

The Arbitral Tribunal may, at the request of one of the Parties, recommend essential interim measures of protection.

ARTICLE 7

The Parties to the dispute shall facilitate the work of the Arbitral Tribunal and, in particular, using all means at their disposal, shall:

- (a) Provide it with all relevant documents, information and facilities; and
- (b) Enable it, when necessary, to call witnesses or experts and receive their evidence.

ARTICLE 8

The Parties and the arbitrators are under an obligation to protect the confidentiality of any information they receive in confidence during the proceedings of the Arbitral Tribunal.

ARTICLE 9

Unless the Arbitral Tribunal determines otherwise because of the particular circumstances of the case, the costs of the Tribunal shall be borne by the Parties to the dispute in equal shares. The Tribunal shall keep a record of all its costs and shall furnish a final statement thereof to the Parties.

ARTICLE 10

A Party that has an interest of a legal nature in the subject matter of the dispute which may be affected by the decision in the case, may intervene in the proceedings with the consent of the Arbitral Tribunal.

ARTICLE 11

The Arbitral Tribunal may hear and determine counterclaims arising directly out of the subject matter of the dispute.

ARTICLE 12

Decisions of the Arbitral Tribunal on both procedure and substance shall be taken by a majority vote of its members.

ARTICLE 13

1. If one of the Parties to the dispute does not appear before the Arbitral Tribunal or fails to defend its case, the other Party may request the Tribunal to continue the proceedings and to render its decision. Absence of a Party or failure of a Party to defend its case shall not constitute a bar to the proceedings.

2. Before rendering its final decision, the Arbitral Tribunal must satisfy itself that the claim is well founded in fact and law.

ARTICLE 14

The Arbitral Tribunal shall render its final decision within five months of the date on which it is fully constituted, unless it finds it necessary to extend the time limit for a period which should not exceed five more months.

ARTICLE 15

The final decision of the Arbitral Tribunal shall be confined to the subject matter of the dispute and shall state the reasons on which it is based. It shall contain the names of the members who have participated and the date of the final decision. Any member of the Tribunal may attach a separate or dissenting opinion to the final decision.

ARTICLE 16

The award shall be binding on the parties to the dispute. The interpretation of the Convention given by the award shall also be binding upon a Party intervening under article 10 above insofar as it relates to matters in respect of which that Party intervened. The award shall be without appeal unless the parties to the dispute have agreed in advance to an appellate procedure.

ARTICLE 17

Any controversy which may arise between those bound by the final decision in accordance with article 16 above, as regards the interpretation or manner of implementation of that decision, may be submitted by any of them for decision to the Arbitral Tribunal which rendered it.

B. Rules on conciliation

The conciliation procedure for purposes of paragraph 6 of article 20 of the Convention shall be as follows.

ARTICLE 1

1. A request by a party to a dispute to establish a conciliation commission in consequence of paragraph 6 of article 20 shall be addressed in writing to the Secretariat. The Secretariat shall forthwith inform all Parties accordingly.

2. The conciliation commission shall, unless the parties otherwise agree, be composed of five members, two appointed by each Party concerned and a President chosen jointly by those members.

ARTICLE 2

In disputes between more than two parties, parties in the same interest shall appoint their members of the commission jointly by agreement.

ARTICLE 3

If any appointments by the parties are not made within two months of the date of receipt by the Secretariat of the written request referred to in article 1, the Secretary-General of the United Nations shall, upon request by a party, make those appointments within a further two-month period.

ARTICLE 4

If the President of the conciliation commission has not been chosen within two months of the fourth member of the commission being appointed, the Secretary-General of the United Nations shall, upon request by a party, designate the President within a further two-month period.

ARTICLE 5

1. The conciliation commission shall, unless the parties to the dispute otherwise agree, determine its own rules of procedure.

2. The parties and members of the commission are under an obligation to protect the confidentiality of any information they receive in confidence during the proceedings of the commission.

ARTICLE 6

The conciliation commission shall take its decisions by a majority vote of its members.

ARTICLE 7

The conciliation commission shall render a report with recommendations for resolution of the dispute within twelve months of being established, which the parties shall consider in good faith.

ARTICLE 8

Any disagreement as to whether the conciliation commission has competence to consider a matter referred to it shall be decided by the commission.

ARTICLE 9

The costs of the Commission shall be borne by the parties to the dispute in shares agreed by them. The Commission shall keep the record of all its costs and shall furnish a final statement thereof to the parties.

附件二

2009 年斯德哥爾摩公約修正版



**STOCKHOLM CONVENTION ON
PERSISTENT ORGANIC POLLUTANTS
(POPs)**

Text and Annexes

as amended in 2009



Published by the Secretariat of the Stockholm Convention
on Persistent Organic Pollutants.

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INTRODUCTION

The Stockholm Convention on Persistent Organic Pollutants was adopted at a Conference of Plenipotentiaries on 22 May 2001 in Stockholm, Sweden. The Convention entered into force on 17 May 2004, ninety (90) days after submission of the fiftieth instrument of ratification, acceptance, approval or accession in respect of the Convention.

Article 18 of the Convention requires the Conference of the Parties to adopt arbitration and conciliation procedures to govern the settlement of disputes between Parties to the Convention. At its first meeting, held from 2 to 6 May 2005 in Punta del Este, Uruguay, the Conference of the Parties adopted decision SC-1/2, by which it established such procedures. The procedures are set out in a new annex to the Convention, Annex G, Part I of which sets forth the arbitration procedure and Part II of which sets forth the conciliation procedure. Annex G entered into force on 31 October 2007, i.e. one (1) year after the date of the communication of its adoption by the depositary for the Convention.

At its fourth meeting, held from 4 to 8 May 2009 in Geneva, Switzerland, the Conference of the Parties, by its decisions SC-4/10 to SC-4/18, amended Annexes A, B and C to the Convention to include additional chemicals: alpha hexachlorocyclohexane; beta hexachlorocyclohexane; chlordane; hexabromobiphenyl; hexabromodiphenyl ether and heptabromodiphenyl ether; lindane; pentachlorobenzene; perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride; and tetrabromodiphenyl ether and pentabromodiphenyl ether. On 26 August 2010, i.e. one (1) year after the date of the communication of their adoption by the depositary for the Convention, the amendments to the Annexes entered into force for all Parties, except for those that had submitted i) a notification of non-acceptance in accordance with the provisions of paragraph 3 (b) of Article 22, or ii) a declaration in accordance with paragraph 4 of Article 22 and paragraph 4 of Article 25 of the Convention, in which case such amendments shall enter into force on the ninetieth day after the date of deposit with the depositary of its instrument of ratification, acceptance, approval or accession with respect to such amendments.

Any errors identified in the text of the Convention in typing or printing, spelling, punctuation or numbering or due to lack of conformity with the original records of the Conference of Plenipotentiaries or lack of concordance between the various language versions of the text of the Stockholm Convention, all of which are deemed to be equally authentic by Article 30 of the Convention, have been corrected in accordance with paragraphs 48 to 62 of the “Summary of Practice of the Secretary-General as Depositary”. These corrections are listed on the Stockholm Convention website under “Countries; Status of Ratifications” and have been made to the text of the Convention contained in this booklet.

Annexes A and B to the Convention set forth a number of specific exemptions for which Parties may register in accordance with Articles 3 and 4 of the Convention. Paragraph 9 of Article 4 provides that if at any time there are no Parties registered for a given specific exemption no new registrations may be made in respect of that exemption. As at 17 May 2009 there were no Parties registered for the specific exemptions listed in Annex A pertaining to aldrin, chlordane, dieldrin, heptachlor, hexachlorobenzene and mirex, nor for the specific exemptions listed in Annex B pertaining to DDT. In accordance with paragraph 9 of Article 4 of the Convention, therefore, no new registrations may be made with respect to those exemptions. Specific exemptions for which no new registrations may be made are indicated in gray in the version of the Stockholm Convention set out in this booklet.

This revised Stockholm Convention text therefore reflects the amendments as adopted by the fourth meeting of the Conference of the Parties in 2009 in its decisions SC-4/10 to SC-4/18.

The version of the Stockholm Convention contained in this booklet is not the Certified True Copy (CTC) as deposited with the Secretary-General in New York. Should you require a CTC, you may retrieve an electronic version from the United Nations Treaty Section collection online (<http://untreaty.un.org>) or kindly contact the Treaty Section for further assistance.

The Secretariat of the Stockholm Convention, August 2010.

STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS

The Parties to this Convention,

Recognizing that persistent organic pollutants possess toxic properties, resist degradation, bioaccumulate and are transported, through air, water and migratory species, across international boundaries and deposited far from their place of release, where they accumulate in terrestrial and aquatic ecosystems,

Aware of the health concerns, especially in developing countries, resulting from local exposure to persistent organic pollutants, in particular impacts upon women and, through them, upon future generations,

Acknowledging that the Arctic ecosystems and indigenous communities are particularly at risk because of the biomagnification of persistent organic pollutants and that contamination of their traditional foods is a public health issue,

Conscious of the need for global action on persistent organic pollutants,

Mindful of decision 19/13 C of 7 February 1997 of the Governing Council of the United Nations Environment Programme to initiate international action to protect human health and the environment through measures which will reduce and/or eliminate emissions and discharges of persistent organic pollutants,

Recalling the pertinent provisions of the relevant international environmental conventions, especially the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal including the regional agreements developed within the framework of its Article 11,

Recalling also the pertinent provisions of the Rio Declaration on Environment and Development and Agenda 21,

Acknowledging that precaution underlies the concerns of all the Parties and is embedded within this Convention,

Recognizing that this Convention and other international agreements in the field of trade and the environment are mutually supportive,

Reaffirming that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,

Taking into account the circumstances and particular requirements of developing countries, in particular the least developed among them, and countries with economies in transition, especially the need to strengthen their national capabilities for the management of chemicals, including through the transfer of technology, the provision of financial and technical assistance and the promotion of cooperation among the Parties,

Taking full account of the Programme of Action for the Sustainable Development of Small Island Developing States, adopted in Barbados on 6 May 1994,

Noting the respective capabilities of developed and developing countries, as well as the common but differentiated responsibilities of States as set forth in Principle 7 of the Rio Declaration on Environment and Development,

Recognizing the important contribution that the private sector and non-governmental organizations can make to achieving the reduction and/or elimination of emissions and discharges of persistent organic pollutants,

Underlining the importance of manufacturers of persistent organic pollutants taking responsibility for reducing adverse effects caused by their products and for providing information to users, Governments and the public on the hazardous properties of those chemicals,

Conscious of the need to take measures to prevent adverse effects caused by persistent organic pollutants at all stages of their life cycle,

Reaffirming Principle 16 of the Rio Declaration on Environment and Development which states that national authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment,

Encouraging Parties not having regulatory and assessment schemes for pesticides and industrial chemicals to develop such schemes,

Recognizing the importance of developing and using environmentally sound alternative processes and chemicals,

Determined to protect human health and the environment from the harmful impacts of persistent organic pollutants,

Have agreed as follows:

ARTICLE 1

Objective

Mindful of the precautionary approach as set forth in Principle 15 of the Rio Declaration on Environment and Development, the objective of this Convention is to protect human health and the environment from persistent organic pollutants.

ARTICLE 2

Definitions

For the purposes of this Convention:

- (a) “Party” means a State or regional economic integration organization that has consented to be bound by this Convention and for which the Convention is in force;
- (b) “Regional economic integration organization” means an organization constituted by sovereign States of a given region to which its member States have transferred competence in respect of matters governed by this Convention and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to this Convention;
- (c) “Parties present and voting” means Parties present and casting an affirmative or negative vote.

ARTICLE 3

Measures to reduce or eliminate releases from intentional production and use

1. Each Party shall:
 - (a) Prohibit and/or take the legal and administrative measures necessary to eliminate:
 - (i) Its production and use of the chemicals listed in Annex A subject to the provisions of that Annex; and
 - (ii) Its import and export of the chemicals listed in Annex A in accordance with the provisions of paragraph 2; and
 - (b) Restrict its production and use of the chemicals listed in Annex B in accordance with the provisions of that Annex.
2. Each Party shall take measures to ensure:
 - (a) That a chemical listed in Annex A or Annex B is imported only:
 - (i) For the purpose of environmentally sound disposal as set forth in paragraph 1 (d) of Article 6; or
 - (ii) For a use or purpose which is permitted for that Party under Annex A or Annex B;
 - (b) That a chemical listed in Annex A for which any production or use specific exemption is in effect or a chemical listed in Annex B for which any production or use specific exemption or acceptable purpose is in effect, taking into account any relevant provisions in existing international prior informed consent instruments, is exported only:

- (i) For the purpose of environmentally sound disposal as set forth in paragraph 1 (d) of Article 6;
- (ii) To a Party which is permitted to use that chemical under Annex A or Annex B; or
- (iii) To a State not Party to this Convention which has provided an annual certification to the exporting Party. Such certification shall specify the intended use of the chemical and include a statement that, with respect to that chemical, the importing State is committed to:
 - a. Protect human health and the environment by taking the necessary measures to minimize or prevent releases;
 - b. Comply with the provisions of paragraph 1 of Article 6; and
 - c. Comply, where appropriate, with the provisions of paragraph 2 of Part II of Annex B.

The certification shall also include any appropriate supporting documentation, such as legislation, regulatory instruments, or administrative or policy guidelines. The exporting Party shall transmit the certification to the Secretariat within sixty days of receipt.

(c) That a chemical listed in Annex A, for which production and use specific exemptions are no longer in effect for any Party, is not exported from it except for the purpose of environmentally sound disposal as set forth in paragraph 1 (d) of Article 6;

(d) For the purposes of this paragraph, the term “State not Party to this Convention” shall include, with respect to a particular chemical, a State or regional economic integration organization that has not agreed to be bound by the Convention with respect to that chemical.

3. Each Party that has one or more regulatory and assessment schemes for new pesticides or new industrial chemicals shall take measures to regulate with the aim of preventing the production and use of new pesticides or new industrial chemicals which, taking into consideration the criteria in paragraph 1 of Annex D, exhibit the characteristics of persistent organic pollutants.

4. Each Party that has one or more regulatory and assessment schemes for pesticides or industrial chemicals shall, where appropriate, take into consideration within these schemes the criteria in paragraph 1 of Annex D when conducting assessments of pesticides or industrial chemicals currently in use.

5. Except as otherwise provided in this Convention, paragraphs 1 and 2 shall not apply to quantities of a chemical to be used for laboratory-scale research or as a reference standard.

6. Any Party that has a specific exemption in accordance with Annex A or a specific exemption or an acceptable purpose in accordance with Annex B shall take appropriate measures to ensure that any production or use under such exemption or purpose is carried out in a manner that prevents or minimizes human exposure and release into the environment. For exempted uses or acceptable purposes that involve intentional release into the environment under conditions of normal use, such release shall be to the minimum extent necessary, taking into account any applicable standards and guidelines.

ARTICLE 4

Register of specific exemptions

1. A Register is hereby established for the purpose of identifying the Parties that have specific exemptions listed in Annex A or Annex B. It shall not identify Parties that make use of the provisions in Annex A or Annex B that may be exercised by all Parties. The Register shall be maintained by the Secretariat and shall be available to the public.
2. The Register shall include:
 - (a) A list of the types of specific exemptions reproduced from Annex A and Annex B;
 - (b) A list of the Parties that have a specific exemption listed under Annex A or Annex B; and
 - (c) A list of the expiry dates for each registered specific exemption.
3. Any State may, on becoming a Party, by means of a notification in writing to the Secretariat, register for one or more types of specific exemptions listed in Annex A or Annex B.
4. Unless an earlier date is indicated in the Register by a Party, or an extension is granted pursuant to paragraph 7, all registrations of specific exemptions shall expire five years after the date of entry into force of this Convention with respect to a particular chemical.
5. At its first meeting, the Conference of the Parties shall decide upon its review process for the entries in the Register.
6. Prior to a review of an entry in the Register, the Party concerned shall submit a report to the Secretariat justifying its continuing need for registration of that exemption. The report shall be circulated by the Secretariat to all Parties. The review of a registration shall be carried out on the basis of all available information. Thereupon, the Conference of the Parties may make such recommendations to the Party concerned as it deems appropriate.
7. The Conference of the Parties may, upon request from the Party concerned, decide to extend the expiry date of a specific exemption for a period of up to five years. In making its decision, the Conference of the Parties shall take due account of the special circumstances of the developing country Parties and Parties with economies in transition.
8. A Party may, at any time, withdraw an entry from the Register for a specific exemption upon written notification to the Secretariat. The withdrawal shall take effect on the date specified in the notification.
9. When there are no longer any Parties registered for a particular type of specific exemption, no new registrations may be made with respect to it.

ARTICLE 5

Measures to reduce or eliminate releases from unintentional production

Each Party shall at a minimum take the following measures to reduce the total releases derived from anthropogenic sources of each of the chemicals listed in Annex C, with the goal of their continuing minimization and, where feasible, ultimate elimination:

(a) Develop an action plan or, where appropriate, a regional or subregional action plan within two years of the date of entry into force of this Convention for it, and subsequently implement it as part of its implementation plan specified in Article 7, designed to identify, characterize and address the release of the chemicals listed in Annex C and to facilitate implementation of subparagraphs (b) to (e). The action plan shall include the following elements:

- (i) An evaluation of current and projected releases, including the development and maintenance of source inventories and release estimates, taking into consideration the source categories identified in Annex C;
- (ii) An evaluation of the efficacy of the laws and policies of the Party relating to the management of such releases;
- (iii) Strategies to meet the obligations of this paragraph, taking into account the evaluations in (i) and (ii);
- (iv) Steps to promote education and training with regard to, and awareness of, those strategies;
- (v) A review every five years of those strategies and of their success in meeting the obligations of this paragraph; such reviews shall be included in reports submitted pursuant to Article 15;
- (vi) A schedule for implementation of the action plan, including for the strategies and measures identified therein;

(b) Promote the application of available, feasible and practical measures that can expeditiously achieve a realistic and meaningful level of release reduction or source elimination;

(c) Promote the development and, where it deems appropriate, require the use of substitute or modified materials, products and processes to prevent the formation and release of the chemicals listed in Annex C, taking into consideration the general guidance on prevention and release reduction measures in Annex C and guidelines to be adopted by decision of the Conference of the Parties;

(d) Promote and, in accordance with the implementation schedule of its action plan, require the use of best available techniques for new sources within source categories which a Party has identified as warranting such action in its action plan, with a particular initial focus on source categories identified in Part II of Annex C. In any case, the requirement to use best available techniques for new sources in the categories listed in Part II of that Annex shall be phased in as soon as practicable but no later than four years after the entry into force of the Convention for that Party. For the identified categories, Parties shall promote the use of best environmental practices. When applying best available techniques and best environmental practices, Parties should take into consideration the general guidance on prevention and release reduction measures in that Annex and guidelines on best available techniques and best environmental practices to be adopted by decision of the Conference of the Parties;

(e) Promote, in accordance with its action plan, the use of best available techniques and best environmental practices:

- (i) For existing sources, within the source categories listed in Part II of Annex C and within source categories such as those in Part III of that Annex; and
- (ii) For new sources, within source categories such as those listed in Part III of Annex C which a Party has not addressed under subparagraph (d).

When applying best available techniques and best environmental practices, Parties should take into consideration the general guidance on prevention and release reduction measures in Annex C and guidelines on best available techniques and best environmental practices to be adopted by decision of the Conference of the Parties;

(f) For the purposes of this paragraph and Annex C:

- (i) “Best available techniques” means the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for release limitations designed to prevent and, where that is not practicable, generally to reduce releases of chemicals listed in Part I of Annex C and their impact on the environment as a whole. In this regard:
- (ii) “Techniques” includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;
- (iii) “Available” techniques means those techniques that are accessible to the operator and that are developed on a scale that allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages; and
- (iv) “Best” means most effective in achieving a high general level of protection of the environment as a whole;
- (v) “Best environmental practices” means the application of the most appropriate combination of environmental control measures and strategies;
- (vi) “New source” means any source of which the construction or substantial modification is commenced at least one year after the date of:

- a. Entry into force of this Convention for the Party concerned; or

- b. Entry into force for the Party concerned of an amendment to Annex C where the source becomes subject to the provisions of this Convention only by virtue of that amendment.

(g) Release limit values or performance standards may be used by a Party to fulfill its commitments for best available techniques under this paragraph.

ARTICLE 6

Measures to reduce or eliminate releases from stockpiles and wastes

1. In order to ensure that stockpiles consisting of or containing chemicals listed either in Annex A or Annex B and wastes, including products and articles upon becoming wastes, consisting of, containing or contaminated with a chemical listed in Annex A, B or C, are managed in a manner protective of human health and the environment, each Party shall:

- (a) Develop appropriate strategies for identifying:
 - (i) Stockpiles consisting of or containing chemicals listed either in Annex A or Annex B; and
 - (ii) Products and articles in use and wastes consisting of, containing or contaminated with a chemical listed in Annex A, B or C;
- (b) Identify, to the extent practicable, stockpiles consisting of or containing chemicals listed either in Annex A or Annex B on the basis of the strategies referred to in subparagraph (a);
- (c) Manage stockpiles, as appropriate, in a safe, efficient and environmentally sound manner. Stockpiles of chemicals listed either in Annex A or Annex B, after they are no longer allowed to be used according to any specific exemption specified in Annex A or any specific exemption or acceptable purpose specified in Annex B, except stockpiles which are allowed to be exported according to paragraph 2 of Article 3, shall be deemed to be waste and shall be managed in accordance with subparagraph (d);
- (d) Take appropriate measures so that such wastes, including products and articles upon becoming wastes, are:
 - (i) Handled, collected, transported and stored in an environmentally sound manner;
 - (ii) Disposed of in such a way that the persistent organic pollutant content is destroyed or irreversibly transformed so that they do not exhibit the characteristics of persistent organic pollutants or otherwise disposed of in an environmentally sound manner when destruction or irreversible transformation does not represent the environmentally preferable option or the persistent organic pollutant content is low, taking into account international rules, standards, and guidelines, including those that may be developed pursuant to paragraph 2, and relevant global and regional regimes governing the management of hazardous wastes;

- (iii) Not permitted to be subjected to disposal operations that may lead to recovery, recycling, reclamation, direct reuse or alternative uses of persistent organic pollutants; and
- (iv) Not transported across international boundaries without taking into account relevant international rules, standards and guidelines;

(e) Endeavour to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annex A, B or C; if remediation of those sites is undertaken it shall be performed in an environmentally sound manner.

2. The Conference of the Parties shall cooperate closely with the appropriate bodies of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal to, inter alia:

(a) Establish levels of destruction and irreversible transformation necessary to ensure that the characteristics of persistent organic pollutants as specified in paragraph 1 of Annex D are not exhibited;

(b) Determine what they consider to be the methods that constitute environmentally sound disposal referred to above; and

(c) Work to establish, as appropriate, the concentration levels of the chemicals listed in Annexes A, B and C in order to define the low persistent organic pollutant content referred to in paragraph 1 (d) (ii).

ARTICLE 7

Implementation plans

1. Each Party shall:

(a) Develop and endeavour to implement a plan for the implementation of its obligations under this Convention;

(b) Transmit its implementation plan to the Conference of the Parties within two years of the date on which this Convention enters into force for it; and

(c) Review and update, as appropriate, its implementation plan on a periodic basis and in a manner to be specified by a decision of the Conference of the Parties.

2. The Parties shall, where appropriate, cooperate directly or through global, regional and subregional organizations, and consult their national stakeholders, including women's groups and groups involved in the health of children, in order to facilitate the development, implementation and updating of their implementation plans.

3. The Parties shall endeavour to utilize and, where necessary, establish the means to integrate national implementation plans for persistent organic pollutants in their sustainable development strategies where appropriate.

ARTICLE 8

Listing of chemicals in Annexes A, B and C

1. A Party may submit a proposal to the Secretariat for listing a chemical in Annexes A, B and/or C. The proposal shall contain the information specified in Annex D. In developing a proposal, a Party may be assisted by other Parties and/or by the Secretariat.
2. The Secretariat shall verify whether the proposal contains the information specified in Annex D. If the Secretariat is satisfied that the proposal contains the information so specified, it shall forward the proposal to the Persistent Organic Pollutants Review Committee.
3. The Committee shall examine the proposal and apply the screening criteria specified in Annex D in a flexible and transparent way, taking all information provided into account in an integrative and balanced manner.
4. If the Committee decides that:
 - (a) It is satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, make the proposal and the evaluation of the Committee available to all Parties and observers and invite them to submit the information specified in Annex E; or
 - (b) It is not satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, inform all Parties and observers and make the proposal and the evaluation of the Committee available to all Parties and the proposal shall be set aside.
5. Any Party may resubmit a proposal to the Committee that has been set aside by the Committee pursuant to paragraph 4. The resubmission may include any concerns of the Party as well as a justification for additional consideration by the Committee. If, following this procedure, the Committee again sets the proposal aside, the Party may challenge the decision of the Committee and the Conference of the Parties shall consider the matter at its next session. The Conference of the Parties may decide, based on the screening criteria in Annex D and taking into account the evaluation of the Committee and any additional information provided by any Party or observer, that the proposal should proceed.
6. Where the Committee has decided that the screening criteria have been fulfilled, or the Conference of the Parties has decided that the proposal should proceed, the Committee shall further review the proposal, taking into account any relevant additional information received, and shall prepare a draft risk profile in accordance with Annex E. It shall, through the Secretariat, make that draft available to all Parties and observers, collect technical comments from them and, taking those comments into account, complete the risk profile.
7. If, on the basis of the risk profile conducted in accordance with Annex E, the Committee decides:
 - (a) That the chemical is likely as a result of its long-range environmental transport to lead to significant adverse human health and/or environmental effects such that global action is warranted, the proposal shall proceed. Lack of full scientific certainty shall not prevent the proposal from proceeding. The Committee shall, through the Secretariat, invite information from all Parties and observers relating to the considerations specified in Annex F. It shall then prepare a risk management evaluation that includes an analysis of possible control measures for the chemical in accordance with that Annex; or

(b) That the proposal should not proceed, it shall, through the Secretariat, make the risk profile available to all Parties and observers and set the proposal aside.

8. For any proposal set aside pursuant to paragraph 7 (b), a Party may request the Conference of the Parties to consider instructing the Committee to invite additional information from the proposing Party and other Parties during a period not to exceed one year. After that period and on the basis of any information received, the Committee shall reconsider the proposal pursuant to paragraph 6 with a priority to be decided by the Conference of the Parties. If, following this procedure, the Committee again sets the proposal aside, the Party may challenge the decision of the Committee and the Conference of the Parties shall consider the matter at its next session. The Conference of the Parties may decide, based on the risk profile prepared in accordance with Annex E and taking into account the evaluation of the Committee and any additional information provided by any Party or observer, that the proposal should proceed. If the Conference of the Parties decides that the proposal shall proceed, the Committee shall then prepare the risk management evaluation.

9. The Committee shall, based on the risk profile referred to in paragraph 6 and the risk management evaluation referred to in paragraph 7 (a) or paragraph 8, recommend whether the chemical should be considered by the Conference of the Parties for listing in Annexes A, B and/or C. The Conference of the Parties, taking due account of the recommendations of the Committee, including any scientific uncertainty, shall decide, in a precautionary manner, whether to list the chemical, and specify its related control measures, in Annexes A, B and/or C.

ARTICLE 9

Information exchange

1. Each Party shall facilitate or undertake the exchange of information relevant to:

(a) The reduction or elimination of the production, use and release of persistent organic pollutants; and

(b) Alternatives to persistent organic pollutants, including information relating to their risks as well as to their economic and social costs.

2. The Parties shall exchange the information referred to in paragraph 1 directly or through the Secretariat.

3. Each Party shall designate a national focal point for the exchange of such information.

4. The Secretariat shall serve as a clearing-house mechanism for information on persistent organic pollutants, including information provided by Parties, intergovernmental organizations and non-governmental organizations.

5. For the purposes of this Convention, information on health and safety of humans and the environment shall not be regarded as confidential. Parties that exchange other information pursuant to this Convention shall protect any confidential information as mutually agreed.

ARTICLE 10

Public information, awareness and education

1. Each Party shall, within its capabilities, promote and facilitate:
 - (a) Awareness among its policy and decision makers with regard to persistent organic pollutants;
 - (b) Provision to the public of all available information on persistent organic pollutants, taking into account paragraph 5 of Article 9;
 - (c) Development and implementation, especially for women, children and the least educated, of educational and public awareness programmes on persistent organic pollutants, as well as on their health and environmental effects and on their alternatives;
 - (d) Public participation in addressing persistent organic pollutants and their health and environmental effects and in developing adequate responses, including opportunities for providing input at the national level regarding implementation of this Convention;
 - (e) Training of workers, scientists, educators and technical and managerial personnel;
 - (f) Development and exchange of educational and public awareness materials at the national and international levels; and
 - (g) Development and implementation of education and training programmes at the national and international levels.
2. Each Party shall, within its capabilities, ensure that the public has access to the public information referred to in paragraph 1 and that the information is kept up-to-date.
3. Each Party shall, within its capabilities, encourage industry and professional users to promote and facilitate the provision of the information referred to in paragraph 1 at the national level and, as appropriate, subregional, regional and global levels.
4. In providing information on persistent organic pollutants and their alternatives, Parties may use safety data sheets, reports, mass media and other means of communication, and may establish information centres at national and regional levels.
5. Each Party shall give sympathetic consideration to developing mechanisms, such as pollutant release and transfer registers, for the collection and dissemination of information on estimates of the annual quantities of the chemicals listed in Annex A, B or C that are released or disposed of.

ARTICLE 11

Research, development and monitoring

1. The Parties shall, within their capabilities, at the national and international levels, encourage and/or undertake appropriate research, development, monitoring and cooperation pertaining to persistent organic pollutants and, where relevant, to their alternatives and to candidate persistent organic pollutants, including on their:

- (a) Sources and releases into the environment;
- (b) Presence, levels and trends in humans and the environment;
- (c) Environmental transport, fate and transformation;
- (d) Effects on human health and the environment;
- (e) Socio-economic and cultural impacts;
- (f) Release reduction and/or elimination; and

(g) Harmonized methodologies for making inventories of generating sources and analytical techniques for the measurement of releases.

2. In undertaking action under paragraph 1, the Parties shall, within their capabilities:

(a) Support and further develop, as appropriate, international programmes, networks and organizations aimed at defining, conducting, assessing and financing research, data collection and monitoring, taking into account the need to minimize duplication of effort;

(b) Support national and international efforts to strengthen national scientific and technical research capabilities, particularly in developing countries and countries with economies in transition, and to promote access to, and the exchange of, data and analyses;

(c) Take into account the concerns and needs, particularly in the field of financial and technical resources, of developing countries and countries with economies in transition and cooperate in improving their capability to participate in the efforts referred to in subparagraphs (a) and (b);

(d) Undertake research work geared towards alleviating the effects of persistent organic pollutants on reproductive health;

(e) Make the results of their research, development and monitoring activities referred to in this paragraph accessible to the public on a timely and regular basis; and

(f) Encourage and/or undertake cooperation with regard to storage and maintenance of information generated from research, development and monitoring.

ARTICLE 12

Technical assistance

1. The Parties recognize that rendering of timely and appropriate technical assistance in response to requests from developing country Parties and Parties with economies in transition is essential to the successful implementation of this Convention.
2. The Parties shall cooperate to provide timely and appropriate technical assistance to developing country Parties and Parties with economies in transition, to assist them, taking into account their particular needs, to develop and strengthen their capacity to implement their obligations under this Convention.
3. In this regard, technical assistance to be provided by developed country Parties, and other Parties in accordance with their capabilities, shall include, as appropriate and as mutually agreed, technical assistance for capacity-building relating to implementation of the obligations under this Convention. Further guidance in this regard shall be provided by the Conference of the Parties.
4. The Parties shall establish, as appropriate, arrangements for the purpose of providing technical assistance and promoting the transfer of technology to developing country Parties and Parties with economies in transition relating to the implementation of this Convention. These arrangements shall include regional and subregional centres for capacity-building and transfer of technology to assist developing country Parties and Parties with economies in transition to fulfil their obligations under this Convention. Further guidance in this regard shall be provided by the Conference of the Parties.
5. The Parties shall, in the context of this Article, take full account of the specific needs and special situation of least developed countries and small island developing states in their actions with regard to technical assistance.

ARTICLE 13

Financial resources and mechanisms

1. Each Party undertakes to provide, within its capabilities, financial support and incentives in respect of those national activities that are intended to achieve the objective of this Convention in accordance with its national plans, priorities and programmes.
2. The developed country Parties shall provide new and additional financial resources to enable developing country Parties and Parties with economies in transition to meet the agreed full incremental costs of implementing measures which fulfill their obligations under this Convention as agreed between a recipient Party and an entity participating in the mechanism described in paragraph 6. Other Parties may also on a voluntary basis and in accordance with their capabilities provide such financial resources. Contributions from other sources should also be encouraged. The implementation of these commitments shall take into account the need for adequacy, predictability, the timely flow of funds and the importance of burden sharing among the contributing Parties.

3. Developed country Parties, and other Parties in accordance with their capabilities and in accordance with their national plans, priorities and programmes, may also provide and developing country Parties and Parties with economies in transition avail themselves of financial resources to assist in their implementation of this Convention through other bilateral, regional and multilateral sources or channels.

4. The extent to which the developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention relating to financial resources, technical assistance and technology transfer. The fact that sustainable economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties will be taken fully into account, giving due consideration to the need for the protection of human health and the environment.

5. The Parties shall take full account of the specific needs and special situation of the least developed countries and the small island developing states in their actions with regard to funding.

6. A mechanism for the provision of adequate and sustainable financial resources to developing country Parties and Parties with economies in transition on a grant or concessional basis to assist in their implementation of the Convention is hereby defined. The mechanism shall function under the authority, as appropriate, and guidance of, and be accountable to the Conference of the Parties for the purposes of this Convention. Its operation shall be entrusted to one or more entities, including existing international entities, as may be decided upon by the Conference of the Parties. The mechanism may also include other entities providing multilateral, regional and bilateral financial and technical assistance. Contributions to the mechanism shall be additional to other financial transfers to developing country Parties and Parties with economies in transition as reflected in, and in accordance with, paragraph 2.

7. Pursuant to the objectives of this Convention and paragraph 6, the Conference of the Parties shall at its first meeting adopt appropriate guidance to be provided to the mechanism and shall agree with the entity or entities participating in the financial mechanism upon arrangements to give effect thereto. The guidance shall address, inter alia:

(a) The determination of the policy, strategy and programme priorities, as well as clear and detailed criteria and guidelines regarding eligibility for access to and utilization of financial resources including monitoring and evaluation on a regular basis of such utilization;

(b) The provision by the entity or entities of regular reports to the Conference of the Parties on adequacy and sustainability of funding for activities relevant to the implementation of this Convention;

(c) The promotion of multiple-source funding approaches, mechanisms and arrangements;

(d) The modalities for the determination in a predictable and identifiable manner of the amount of funding necessary and available for the implementation of this Convention, keeping in mind that the phasing out of persistent organic pollutants might require sustained funding, and the conditions under which that amount shall be periodically reviewed; and

(e) The modalities for the provision to interested Parties of assistance with needs assessment, information on available sources of funds and on funding patterns in order to facilitate coordination among them.

8. The Conference of the Parties shall review, not later than its second meeting and thereafter on a regular basis, the effectiveness of the mechanism established under this Article, its ability to address the changing needs of the developing country Parties and Parties with economies in transition, the criteria and guidance referred to in paragraph 7, the level of funding as well as the effectiveness of the performance of the institutional entities entrusted to operate the financial mechanism. It shall, based on such review, take appropriate action, if necessary, to improve the effectiveness of the mechanism, including by means of recommendations and guidance on measures to ensure adequate and sustainable funding to meet the needs of the Parties.

ARTICLE 14

Interim financial arrangements

The institutional structure of the Global Environment Facility, operated in accordance with the Instrument for the Establishment of the Restructured Global Environment Facility, shall, on an interim basis, be the principal entity entrusted with the operations of the financial mechanism referred to in Article 13, for the period between the date of entry into force of this Convention and the first meeting of the Conference of the Parties, or until such time as the Conference of the Parties decides which institutional structure will be designated in accordance with Article 13. The institutional structure of the Global Environment Facility should fulfill this function through operational measures related specifically to persistent organic pollutants taking into account that new arrangements for this area may be needed.

ARTICLE 15

Reporting

1. Each Party shall report to the Conference of the Parties on the measures it has taken to implement the provisions of this Convention and on the effectiveness of such measures in meeting the objectives of the Convention.

2. Each Party shall provide to the Secretariat:

(a) Statistical data on its total quantities of production, import and export of each of the chemicals listed in Annex A and Annex B or a reasonable estimate of such data; and

(b) To the extent practicable, a list of the States from which it has imported each such substance and the States to which it has exported each such substance.

3. Such reporting shall be at periodic intervals and in a format to be decided by the Conference of the Parties at its first meeting.

ARTICLE 16

Effectiveness evaluation

1. Commencing four years after the date of entry into force of this Convention, and periodically thereafter at intervals to be decided by the Conference of the Parties, the Conference shall evaluate the effectiveness of this Convention.

2. In order to facilitate such evaluation, the Conference of the Parties shall, at its first meeting, initiate the establishment of arrangements to provide itself with comparable monitoring data on the presence of the chemicals listed in Annexes A, B and C as well as their regional and global environmental transport. These arrangements:

(a) Should be implemented by the Parties on a regional basis when appropriate, in accordance with their technical and financial capabilities, using existing monitoring programmes and mechanisms to the extent possible and promoting harmonization of approaches;

(b) May be supplemented where necessary, taking into account the differences between regions and their capabilities to implement monitoring activities; and

(c) Shall include reports to the Conference of the Parties on the results of the monitoring activities on a regional and global basis at intervals to be specified by the Conference of the Parties.

3. The evaluation described in paragraph 1 shall be conducted on the basis of available scientific, environmental, technical and economic information, including:

(a) Reports and other monitoring information provided pursuant to paragraph 2;

(b) National reports submitted pursuant to Article 15; and

(c) Non-compliance information provided pursuant to the procedures established under Article 17.

ARTICLE 17

Non-compliance

The Conference of the Parties shall, as soon as practicable, develop and approve procedures and institutional mechanisms for determining non-compliance with the provisions of this Convention and for the treatment of Parties found to be in non-compliance.

ARTICLE 18

Settlement of disputes

1. Parties shall settle any dispute between them concerning the interpretation or application of this Convention through negotiation or other peaceful means of their own choice.
2. When ratifying, accepting, approving or acceding to the Convention, or at any time thereafter, a Party that is not a regional economic integration organization may declare in a written instrument submitted to the depositary that, with respect to any dispute concerning the interpretation or application of the Convention, it recognizes one or both of the following means of dispute settlement as compulsory in relation to any Party accepting the same obligation:
 - (a) Arbitration in accordance with procedures to be adopted by the Conference of the Parties in an annex as soon as practicable;
 - (b) Submission of the dispute to the International Court of Justice.
3. A Party that is a regional economic integration organization may make a declaration with like effect in relation to arbitration in accordance with the procedure referred to in paragraph 2 (a).
4. A declaration made pursuant to paragraph 2 or paragraph 3 shall remain in force until it expires in accordance with its terms or until three months after written notice of its revocation has been deposited with the depositary.
5. The expiry of a declaration, a notice of revocation or a new declaration shall not in any way affect proceedings pending before an arbitral tribunal or the International Court of Justice unless the parties to the dispute otherwise agree.
6. If the parties to a dispute have not accepted the same or any procedure pursuant to paragraph 2, and if they have not been able to settle their dispute within twelve months following notification by one party to another that a dispute exists between them, the dispute shall be submitted to a conciliation commission at the request of any party to the dispute. The conciliation commission shall render a report with recommendations. Additional procedures relating to the conciliation commission shall be included in an annex to be adopted by the Conference of the Parties no later than at its second meeting.

ARTICLE 19

Conference of the Parties

1. A Conference of the Parties is hereby established.
2. The first meeting of the Conference of the Parties shall be convened by the Executive Director of the United Nations Environment Programme no later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be decided by the Conference.
3. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party provided that it is supported by at least one third of the Parties.
4. The Conference of the Parties shall by consensus agree upon and adopt at its first meeting rules of procedure and financial rules for itself and any subsidiary bodies, as well as financial provisions governing the functioning of the Secretariat.
5. The Conference of the Parties shall keep under continuous review and evaluation the implementation of this Convention. It shall perform the functions assigned to it by the Convention and, to this end, shall:
 - (a) Establish, further to the requirements of paragraph 6, such subsidiary bodies as it considers necessary for the implementation of the Convention;
 - (b) Cooperate, where appropriate, with competent international organizations and intergovernmental and non-governmental bodies; and
 - (c) Regularly review all information made available to the Parties pursuant to Article 15, including consideration of the effectiveness of paragraph 2 (b) (iii) of Article 3;
 - (d) Consider and undertake any additional action that may be required for the achievement of the objectives of the Convention.
6. The Conference of the Parties shall, at its first meeting, establish a subsidiary body to be called the Persistent Organic Pollutants Review Committee for the purposes of performing the functions assigned to that Committee by this Convention. In this regard:
 - (a) The members of the Persistent Organic Pollutants Review Committee shall be appointed by the Conference of the Parties. Membership of the Committee shall consist of government-designated experts in chemical assessment or management. The members of the Committee shall be appointed on the basis of equitable geographical distribution;
 - (b) The Conference of the Parties shall decide on the terms of reference, organization and operation of the Committee; and
 - (c) The Committee shall make every effort to adopt its recommendations by consensus. If all efforts at consensus have been exhausted, and no consensus reached, such recommendation shall as a last resort be adopted by a two-thirds majority vote of the members present and voting.

7. The Conference of the Parties shall, at its third meeting, evaluate the continued need for the procedure contained in paragraph 2 (b) of Article 3, including consideration of its effectiveness.

8. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not Party to this Convention, may be represented at meetings of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, qualified in matters covered by the Convention, and which has informed the Secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

ARTICLE 20

Secretariat

1. A Secretariat is hereby established.

2. The functions of the Secretariat shall be:

(a) To make arrangements for meetings of the Conference of the Parties and its subsidiary bodies and to provide them with services as required;

(b) To facilitate assistance to the Parties, particularly developing country Parties and Parties with economies in transition, on request, in the implementation of this Convention;

(c) To ensure the necessary coordination with the secretariats of other relevant international bodies;

(d) To prepare and make available to the Parties periodic reports based on information received pursuant to Article 15 and other available information;

(e) To enter, under the overall guidance of the Conference of the Parties, into such administrative and contractual arrangements as may be required for the effective discharge of its functions; and

(f) To perform the other secretariat functions specified in this Convention and such other functions as may be determined by the Conference of the Parties.

3. The secretariat functions for this Convention shall be performed by the Executive Director of the United Nations Environment Programme, unless the Conference of the Parties decides, by a three-fourths majority of the Parties present and voting, to entrust the secretariat functions to one or more other international organizations.

ARTICLE 21

Amendments to the Convention

1. Amendments to this Convention may be proposed by any Party.
2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. The text of any proposed amendment shall be communicated to the Parties by the Secretariat at least six months before the meeting at which it is proposed for adoption. The Secretariat shall also communicate proposed amendments to the signatories to this Convention and, for information, to the depositary.
3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting.
4. The amendment shall be communicated by the depositary to all Parties for ratification, acceptance or approval.
5. Ratification, acceptance or approval of an amendment shall be notified to the depositary in writing. An amendment adopted in accordance with paragraph 3 shall enter into force for the Parties having accepted it on the ninetieth day after the date of deposit of instruments of ratification, acceptance or approval by at least three-fourths of the Parties. Thereafter, the amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits its instrument of ratification, acceptance or approval of the amendment.

ARTICLE 22

Adoption and amendment of annexes

1. Annexes to this Convention shall form an integral part thereof and, unless expressly provided otherwise, a reference to this Convention constitutes at the same time a reference to any annexes thereto.
2. Any additional annexes shall be restricted to procedural, scientific, technical or administrative matters.
3. The following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention:
 - (a) Additional annexes shall be proposed and adopted according to the procedure laid down in paragraphs 1, 2 and 3 of Article 21;
 - (b) Any Party that is unable to accept an additional annex shall so notify the depositary, in writing, within one year from the date of communication by the depositary of the adoption of the additional annex. The depositary shall without delay notify all Parties of any such notification received. A Party may at any time withdraw a previous notification of

non-acceptance in respect of any additional annex, and the annex shall thereupon enter into force for that Party subject to subparagraph (c); and

(c) On the expiry of one year from the date of the communication by the depositary of the adoption of an additional annex, the annex shall enter into force for all Parties that have not submitted a notification in accordance with the provisions of subparagraph (b).

4. The proposal, adoption and entry into force of amendments to Annex A, B or C shall be subject to the same procedures as for the proposal, adoption and entry into force of additional annexes to this Convention, except that an amendment to Annex A, B or C shall not enter into force with respect to any Party that has made a declaration with respect to amendment to those Annexes in accordance with paragraph 4 of Article 25, in which case any such amendment shall enter into force for such a Party on the ninetieth day after the date of deposit with the depositary of its instrument of ratification, acceptance, approval or accession with respect to such amendment.

5. The following procedure shall apply to the proposal, adoption and entry into force of an amendment to Annex D, E or F:

(a) Amendments shall be proposed according to the procedure in paragraphs 1 and 2 of Article 21;

(b) The Parties shall take decisions on an amendment to Annex D, E or F by consensus; and

(c) A decision to amend Annex D, E or F shall forthwith be communicated to the Parties by the depositary. The amendment shall enter into force for all Parties on a date to be specified in the decision.

6. If an additional annex or an amendment to an annex is related to an amendment to this Convention, the additional annex or amendment shall not enter into force until such time as the amendment to the Convention enters into force.

ARTICLE 23

Right to vote

1. Each Party to this Convention shall have one vote, except as provided for in paragraph 2.

2. A regional economic integration organization, on matters within its competence, shall exercise its right to vote with a number of votes equal to the number of its member States that are Parties to this Convention. Such an organization shall not exercise its right to vote if any of its member States exercises its right to vote, and vice versa.

ARTICLE 24

Signature

This Convention shall be open for signature at Stockholm by all States and regional economic integration organizations on 23 May 2001, and at the United Nations Headquarters in New York from 24 May 2001 to 22 May 2002.

ARTICLE 25

Ratification, acceptance, approval or accession

1. This Convention shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. It shall be open for accession by States and by regional economic integration organizations from the day after the date on which the Convention is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the depositary.
2. Any regional economic integration organization that becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations, one or more of whose member States is a Party to this Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.
3. In its instrument of ratification, acceptance, approval or accession, a regional economic integration organization shall declare the extent of its competence in respect of the matters governed by this Convention. Any such organization shall also inform the depositary, who shall in turn inform the Parties, of any relevant modification in the extent of its competence.
4. In its instrument of ratification, acceptance, approval or accession, any Party may declare that, with respect to it, any amendment to Annex A, B or C shall enter into force only upon the deposit of its instrument of ratification, acceptance, approval or accession with respect thereto.

ARTICLE 26

Entry into force

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession.
2. For each State or regional economic integration organization that ratifies, accepts or approves this Convention or accedes thereto after the deposit of the fiftieth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval or accession.
3. For the purpose of paragraphs 1 and 2, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of that organization.

ARTICLE 27

Reservations

No reservations may be made to this Convention.

ARTICLE 28

Withdrawal

1. At any time after three years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the depositary.
2. Any such withdrawal shall take effect upon the expiry of one year from the date of receipt by the depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

ARTICLE 29

Depositary

The Secretary-General of the United Nations shall be the depositary of this Convention.

ARTICLE 30

Authentic texts

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

Done at Stockholm on this twenty-second day of May, two thousand and one.

Annex A

ELIMINATION

Part I

Chemical	Activity	Specific exemption ¹
Aldrin* CAS No: 309-00-2	Production	None
	Use	Local ectoparasiticide Insecticide
Alpha hexachlorocyclohexane* CAS No: 319-84-6	Production	None
	Use	None
Beta hexachlorocyclohexane* CAS No: 319-85-7	Production	None
	Use	None
Chlordane* CAS No: 57-74-9	Production	As allowed for the Parties listed in the Register
	Use	Local ectoparasiticide Insecticide Termiticide Termiticide in buildings and dams Termiticide in roads Additive in plywood adhesives
Chlordecone* CAS No: 143-50-0	Production	None
	Use	None
Dieldrin* CAS No: 60-57-1	Production	None
	Use	In agricultural operations
Endrin* CAS No: 72-20-8	Production	None
	Use	None
Heptachlor* CAS No: 76-44-8	Production	None
	Use	Termiticide Termiticide in structures of houses Termiticide (subterranean) Wood treatment In use in underground cable boxes
Hexabromobiphenyl *	Production	None

¹ Please note that, as at 17 May 2009, there were no Parties registered for the specific exemptions listed in Annex A pertaining to aldrin, chlordane, dieldrin, heptachlor, hexachlorobenzene, and mirex. Therefore, in accordance with paragraph 9 of Article 4 of the Convention, no new registrations may be made with respect to such exemptions, which appear in gray text in the table.

Chemical	Activity	Specific exemption ¹
CAS No: 36355-01-8	Use	None
Hexabromodiphenyl ether* and heptabromodiphenyl ether*	Production	None
	Use	Articles in accordance with the provisions of Part IV of this Annex
Hexachlorobenzene CAS No: 118-74-1	Production	As allowed for the Parties listed in the Register
	Use	Intermediate Solvent in pesticide Closed system site limited intermediate ²
Lindane* CAS No: 58-89-9	Production	None
	Use	Human health pharmaceutical for control of head lice and scabies as second line treatment
Mirex* CAS No: 2385-85-5	Production	As allowed for the Parties listed in the Register
	Use	Termiticide
Pentachlorobenzene* CAS No: 608-93-5	Production	None
	Use	None
Polychlorinated Biphenyls (PCB)*	Production	None
	Use	Articles in use in accordance with the provisions of Part II of this Annex
Tetrabromodiphenyl ether* and pentabromodiphenyl ether*	Production	None
	Use	Articles in accordance with the provisions of Part V of this Annex
Toxaphene* CAS No: 8001-35-2	Production	None
	Use	None

Notes:

- (i) Except as otherwise specified in this Convention, quantities of a chemical occurring as unintentional trace contaminants in products and articles shall not be considered to be listed in this Annex;
- (ii) This note shall not be considered as a production and use specific exemption for purposes of paragraph 2 of Article 3. Quantities of a chemical occurring as constituents of articles manufactured or already in use before or on the date of entry into force of the relevant obligation with respect to that chemical, shall not be considered as listed in this Annex, provided that a Party has notified the Secretariat that a particular type of article remains in use within that Party. The Secretariat shall make such notifications publicly available;

² Please note that, although the specific exemption for the use of hexachlorobenzene as closed-system site-limited intermediate is no longer available, this use is still possible in accordance with note (iii) of Part I of this Annex.

- (iii) This note, which does not apply to a chemical that has an asterisk following its name in the Chemical column in Part I of this Annex, shall not be considered as a production and use specific exemption for purposes of paragraph 2 of Article 3. Given that no significant quantities of the chemical are expected to reach humans and the environment during the production and use of a closed-system site-limited intermediate, a Party, upon notification to the Secretariat, may allow the production and use of quantities of a chemical listed in this Annex as a closed-system site-limited intermediate that is chemically transformed in the manufacture of other chemicals that, taking into consideration the criteria in paragraph 1 of Annex D, do not exhibit the characteristics of persistent organic pollutants. This notification shall include information on total production and use of such chemical or a reasonable estimate of such information and information regarding the nature of the closed-system site-limited process including the amount of any non-transformed and unintentional trace contamination of the persistent organic pollutant-starting material in the final product. This procedure applies except as otherwise specified in this Annex. The Secretariat shall make such notifications available to the Conference of the Parties and to the public. Such production or use shall not be considered a production or use specific exemption. Such production and use shall cease after a ten-year period, unless the Party concerned submits a new notification to the Secretariat, in which case the period will be extended for an additional ten years unless the Conference of the Parties, after a review of the production and use decides otherwise. The notification procedure can be repeated;
- (iv) All the specific exemptions in this Annex may be exercised by Parties that have registered exemptions in respect of them in accordance with Article 4 with the exception of the use of polychlorinated biphenyls in articles in use in accordance with the provisions of Part II, the use of hexabromodiphenyl ether and heptabromodiphenyl ether in accordance with the provisions of Part IV, and the use of tetrabromodiphenyl ether and pentabromodiphenyl ether in accordance with the provisions of Part V of this Annex, which may be exercised by all Parties.

Part II

Polychlorinated biphenyls

Each Party shall:

(a) With regard to the elimination of the use of polychlorinated biphenyls in equipment (e.g. transformers, capacitors or other receptacles containing liquid stocks) by 2025, subject to review by the Conference of the Parties, take action in accordance with the following priorities:

- (i) Make determined efforts to identify, label and remove from use equipment containing greater than 10 per cent polychlorinated biphenyls and volumes greater than 5 litres;
- (ii) Make determined efforts to identify, label and remove from use equipment containing greater than 0.05 per cent polychlorinated biphenyls and volumes greater than 5 litres;

- (iii) Endeavour to identify and remove from use equipment containing greater than 0.005 percent polychlorinated biphenyls and volumes greater than 0.05 litres;
- (b) Consistent with the priorities in subparagraph (a), promote the following measures to reduce exposures and risk to control the use of polychlorinated biphenyls:
- (i) Use only in intact and non-leaking equipment and only in areas where the risk from environmental release can be minimised and quickly remedied;
 - (ii) Not use in equipment in areas associated with the production or processing of food or feed;
 - (iii) When used in populated areas, including schools and hospitals, all reasonable measures to protect from electrical failure which could result in a fire, and regular inspection of equipment for leaks;
- (c) Notwithstanding paragraph 2 of Article 3, ensure that equipment containing polychlorinated biphenyls, as described in subparagraph (a), shall not be exported or imported except for the purpose of environmentally sound waste management;
- (d) Except for maintenance and servicing operations, not allow recovery for the purpose of reuse in other equipment of liquids with polychlorinated biphenyls content above 0.005 per cent;
- (e) Make determined efforts designed to lead to environmentally sound waste management of liquids containing polychlorinated biphenyls and equipment contaminated with polychlorinated biphenyls having a polychlorinated biphenyls content above 0.005 per cent, in accordance with paragraph 1 of Article 6, as soon as possible but no later than 2028, subject to review by the Conference of the Parties;
- (f) In lieu of note (ii) in Part I of this Annex, endeavour to identify other articles containing more than 0.005 per cent polychlorinated biphenyls (e.g. cable-sheaths, cured caulk and painted objects) and manage them in accordance with paragraph 1 of Article 6;
- (g) Provide a report every five years on progress in eliminating polychlorinated biphenyls and submit it to the Conference of the Parties pursuant to Article 15;
- (h) The reports described in subparagraph (g) shall, as appropriate, be considered by the Conference of the Parties in its reviews relating to polychlorinated biphenyls. The Conference of the Parties shall review progress towards elimination of polychlorinated biphenyls at five year intervals or other period, as appropriate, taking into account such reports.

Part III

Definitions

For the purpose of this Annex:

- (a) “Hexabromodiphenyl ether and heptabromodiphenyl ether” means 2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153, CAS No: 68631-49-2), 2,2',4,4',5,6'-hexabromodiphenyl ether (BDE-154, CAS No: 207122-15-4), 2,2',3,3',4,5',6-heptabromodiphenyl ether (BDE-

175, CAS No: 446255-22-7), 2,2',3,4,4',5',6-heptabromodiphenyl ether (BDE-183, CAS No: 207122-16-5) and other hexa- and heptabromodiphenyl ethers present in commercial octabromodiphenyl ether.

(b) "Tetrabromodiphenyl ether and pentabromodiphenyl ether" means 2,2',4,4'-tetrabromodiphenyl ether (BDE-47, CAS No: 5436-43-1) and 2,2',4,4',5-pentabromodiphenyl ether (BDE-99, CAS No: 60348-60-9) and other tetra- and pentabromodiphenyl ethers present in commercial pentabromodiphenyl ether.

Part IV

Hexabromodiphenyl ether and heptabromodiphenyl ether

1. A Party may allow recycling of articles that contain or may contain hexabromodiphenyl ether and heptabromodiphenyl ether, and the use and final disposal of articles manufactured from recycled materials that contain or may contain hexabromodiphenyl ether and heptabromodiphenyl ether, provided that:

(a) The recycling and final disposal is carried out in an environmentally sound manner and does not lead to recovery of hexabromodiphenyl ether and heptabromodiphenyl ether for the purpose of their reuse;

(b) The Party takes steps to prevent exports of such articles that contain levels/concentrations of hexabromodiphenyl ether and heptabromodiphenyl ether exceeding those permitted for the sale, use, import or manufacture of those articles within the territory of the Party; and

(c) The Party has notified the Secretariat of its intention to make use of this exemption.

2. At its sixth ordinary meeting and at every second ordinary meeting thereafter the Conference of the Parties shall evaluate the progress that Parties have made towards achieving their ultimate objective of elimination of hexabromodiphenyl ether and heptabromodiphenyl ether contained in articles and review the continued need for this specific exemption. This specific exemption shall in any case expire at the latest in 2030.

Part V

Tetrabromodiphenyl ether and pentabromodiphenyl ether

1. A Party may allow recycling of articles that contain or may contain tetrabromodiphenyl ether and pentabromodiphenyl ether, and the use and final disposal of articles manufactured from recycled materials that contain or may contain tetrabromodiphenyl ether and pentabromodiphenyl ether, provided that:

(a) The recycling and final disposal is carried out in an environmentally sound manner and does not lead to recovery of tetrabromodiphenyl ether and pentabromodiphenyl ether for the purpose of their reuse;

(b) The Party does not allow this exemption to lead to the export of articles containing levels/concentrations of tetrabromodiphenyl ether and pentabromodiphenyl ether that exceed those permitted to be sold within the territory of the Party; and

(c) The Party has notified the Secretariat of its intention to make use of this exemption.

2. At its sixth ordinary meeting and at every second ordinary meeting thereafter the Conference of the Parties shall evaluate the progress that Parties have made towards achieving their ultimate objective of elimination of tetrabromodiphenyl ether and pentabromodiphenyl ether contained in articles and review the continued need for this specific exemption. This specific exemption shall in any case expire at the latest in 2030.

Annex B

RESTRICTION

Part I

Chemical	Activity	Acceptable purpose or specific exemption ³
DDT (1,1,1-trichloro-2,2-bis (4-chlorophenyl)ethane) CAS No: 50-29-3	Production	<u>Acceptable purpose:</u> Disease vector control use in accordance with Part II of this Annex <u>Specific exemption:</u> Intermediate in production of dicofol Intermediate
	Use	<u>Acceptable purpose:</u> Disease vector control in accordance with Part II of this Annex <u>Specific exemption:</u> Production of dicofol Intermediate
Perfluorooctane sulfonic acid (CAS No: 1763-23-1), its salts ^a and perfluorooctane sulfonyl fluoride (CAS No: 307-35-7) ^a For example: potassium perfluorooctane sulfonate (CAS No: 2795-39-3); lithium perfluorooctane sulfonate (CAS No: 29457-72-5); ammonium perfluorooctane sulfonate (CAS No: 29081-56-9); diethanolammonium perfluorooctane sulfonate (CAS No: 70225-14-8); tetraethylammonium perfluorooctane sulfonate (CAS No: 56773-42-3); didecyldimethylammonium perfluorooctane sulfonate (CAS No: 251099-16-8)	Production	<u>Acceptable purpose:</u> In accordance with Part III of this Annex, production of other chemicals to be used solely for the uses below. Production for uses listed below. <u>Specific exemption:</u> As allowed for Parties listed in the Register.
	Use	<u>Acceptable purpose:</u> In accordance with Part III of this Annex for the following acceptable purposes, or as an intermediate in the production of chemicals with the following acceptable purposes: • Photo-imaging • Photo-resist and anti-reflective coatings for semi-conductors • Etching agent for compound semi-conductors and ceramic filters • Aviation hydraulic fluids • Metal plating (hard metal plating) only in closed-loop systems

³ Please note that, as at 17 May 2009, there were no Parties registered for the specific exemptions listed in Annex B pertaining to DDT. Therefore, in accordance with paragraph 9 of Article 4 of the Conventions, no new registrations may be made with respect to such exemptions, which appear in gray text in the table.

Chemical	Activity	Acceptable purpose or specific exemption ³
		• Certain medical devices (such as ethylene tetrafluoroethylene copolymer (ETFE) layers and radio-opaque ETFE production, in-vitro diagnostic medical devices, and CCD colour filters) • Fire-fighting foam • Insect baits for control of leaf-cutting ants from <i>Atta spp.</i> and <i>Acromyrmex spp.</i> <u>Specific exemption:</u> For the following specific uses, or as an intermediate in the production of chemicals with the following specific uses: • Photo masks in the semiconductor and liquid crystal display (LCD) industries • Metal plating (hard metal plating) • Metal plating (decorative plating) • Electric and electronic parts for some colour printers and colour copy machines • Insecticides for control of red imported fire ants and termites • Chemically driven oil production • Carpets • Leather and apparel • Textiles and upholstery • Paper and packaging • Coatings and coating additives • Rubber and plastics

Notes:

- (i) Except as otherwise specified in this Convention, quantities of a chemical occurring as unintentional trace contaminants in products and articles shall not be considered to be listed in this Annex;
- (ii) This note shall not be considered as a production and use acceptable purpose or specific exemption for purposes of paragraph 2 of Article 3. Quantities of a chemical occurring as constituents of articles manufactured or already in use before or on the date of entry into force of the relevant obligation with respect to that chemical, shall not be considered as listed in this Annex, provided that a Party has notified the Secretariat that a particular type of article remains in use within that Party. The Secretariat shall make such notifications publicly available;
- (iii) This note shall not be considered as a production and use specific exemption for purposes of paragraph 2 of Article 3. Given that no significant quantities of the chemical are expected to reach humans and the environment during the production

and use of a closed-system site-limited intermediate, a Party, upon notification to the Secretariat, may allow the production and use of quantities of a chemical listed in this Annex as a closed-system site-limited intermediate that is chemically transformed in the manufacture of other chemicals that, taking into consideration the criteria in paragraph 1 of Annex D, do not exhibit the characteristics of persistent organic pollutants. This notification shall include information on total production and use of such chemical or a reasonable estimate of such information and information regarding the nature of the closed-system site-limited process including the amount of any non-transformed and unintentional trace contamination of the persistent organic pollutant-starting material in the final product. This procedure applies except as otherwise specified in this Annex. The Secretariat shall make such notifications available to the Conference of the Parties and to the public. Such production or use shall not be considered a production or use specific exemption. Such production and use shall cease after a ten-year period, unless the Party concerned submits a new notification to the Secretariat, in which case the period will be extended for an additional ten years unless the Conference of the Parties, after a review of the production and use decides otherwise. The notification procedure can be repeated;

- (iv) All the specific exemptions in this Annex may be exercised by Parties that have registered in respect of them in accordance with Article 4.

Part II

DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane)

1. The production and use of DDT shall be eliminated except for Parties that have notified the Secretariat of their intention to produce and/or use it. A DDT Register is hereby established and shall be available to the public. The Secretariat shall maintain the DDT Register.

2. Each Party that produces and/or uses DDT shall restrict such production and/or use for disease vector control in accordance with the World Health Organization recommendations and guidelines on the use of DDT and when locally safe, effective and affordable alternatives are not available to the Party in question.

3. In the event that a Party not listed in the DDT Register determines that it requires DDT for disease vector control, it shall notify the Secretariat as soon as possible in order to have its name added forthwith to the DDT Register. It shall at the same time notify the World Health Organization.

4. Every three years, each Party that uses DDT shall provide to the Secretariat and the World Health Organization information on the amount used, the conditions of such use and its relevance to that Party's disease management strategy, in a format to be decided by the Conference of the Parties in consultation with the World Health Organization.

5. With the goal of reducing and ultimately eliminating the use of DDT, the Conference of the Parties shall encourage:

- (a) Each Party using DDT to develop and implement an action plan as part of the implementation plan specified in Article 7. That action plan shall include:

- (i) Development of regulatory and other mechanisms to ensure that DDT use is restricted to disease vector control;
- (ii) Implementation of suitable alternative products, methods and strategies, including resistance management strategies to ensure the continuing effectiveness of these alternatives;
- (iii) Measures to strengthen health care and to reduce the incidence of the disease.

(b) The Parties, within their capabilities, to promote research and development of safe alternative chemical and non-chemical products, methods and strategies for Parties using DDT, relevant to the conditions of those countries and with the goal of decreasing the human and economic burden of disease. Factors to be promoted when considering alternatives or combinations of alternatives shall include the human health risks and environmental implications of such alternatives. Viable alternatives to DDT shall pose less risk to human health and the environment, be suitable for disease control based on conditions in the Parties in question and be supported with monitoring data.

6. Commencing at its first meeting, and at least every three years thereafter, the Conference of the Parties shall, in consultation with the World Health Organization, evaluate the continued need for DDT for disease vector control on the basis of available scientific, technical, environmental and economic information, including:

- (a) The production and use of DDT and the conditions set out in paragraph 2;
- (b) The availability, suitability and implementation of the alternatives to DDT; and
- (c) Progress in strengthening the capacity of countries to transfer safely to reliance on such alternatives.

7. A Party may, at any time, withdraw its name from the DDT Registry upon written notification to the Secretariat. The withdrawal shall take effect on the date specified in the notification.

Part III

Perfluorooctane sulfonic acid, its salts, and perfluorooctane sulfonyl fluoride

1. The production and use of perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) shall be eliminated by all Parties except as provided in Part I of this Annex for Parties that have notified the Secretariat of their intention to produce and/or use them for acceptable purposes. A Register of Acceptable Purposes is hereby established and shall be available to the public. The Secretariat shall maintain the Register of Acceptable Purposes. In the event that a Party not listed in the Register determines that it requires the use of PFOS, its salts or PFOSF for the acceptable purposes listed in Part I of this Annex it shall notify the Secretariat as soon as possible in order to have its name added forthwith to the Register.

2. Parties that produce and/or use these chemicals shall take into account, as appropriate, guidance such as that given in the relevant parts of the general guidance on best available techniques and best environmental practices given in Part V of Annex C of the Convention.

3. Every four years, each Party that uses and/or produces these chemicals shall report on progress made to eliminate PFOS, its salts and PFOSF and submit information on such progress to the Conference of the Parties pursuant to and in the process of reporting under Article 15 of the Convention.

4. With the goal of reducing and ultimately eliminating the production and/or use of these chemicals, the Conference of the Parties shall encourage:

(a) Each Party using these chemicals to take action to phase out uses when suitable alternatives substances or methods are available;

(b) Each Party using and/or producing these chemicals to develop and implement an action plan as part of the implementation plan specified in Article 7 of the Convention;

(c) The Parties, within their capabilities, to promote research on and development of safe alternative chemical and non-chemical products and processes, methods and strategies for Parties using these chemicals, relevant to the conditions of those Parties. Factors to be promoted when considering alternatives or combinations of alternatives shall include the human health risks and environmental implications of such alternatives.

5. The Conference of the Parties shall evaluate the continued need for these chemicals for the various acceptable purposes and specific exemptions on the basis of available scientific, technical, environmental and economic information, including:

(a) Information provided in the reports described in paragraph 3;

(b) Information on the production and use of these chemicals;

(c) Information on the availability, suitability and implementation of alternatives to these chemicals;

(d) Information on progress in building the capacity of countries to transfer safely to reliance on such alternatives.

6. The evaluation referred to in the preceding paragraph shall take place no later than in 2015 and every four years thereafter, in conjunction with a regular meeting of the Conference of the Parties.

7. Due to the complexity of the use and the many sectors of society involved in the use of these chemicals, there might be other uses of these chemicals of which countries are not presently aware. Parties which become aware of other uses are encouraged to inform the Secretariat as soon as possible.

8. A Party may, at any time, withdraw its name from the Register of acceptable purposes upon written notification to the Secretariat. The withdrawal shall take effect on the date specified in the notification.

9. The provisions of note (iii) of Part I of Annex B shall not apply to these chemicals.

UNINTENTIONAL PRODUCTION

Part I

Persistent organic pollutants subject to the requirements of Article 5

This Annex applies to the following persistent organic pollutants when formed and released unintentionally from anthropogenic sources:

Chemical
Hexachlorobenzene (HCB) (CAS No: 118-74-1) Pentachlorobenzene (PeCB) (CAS No: 608-93-5) Polychlorinated biphenyls (PCB) Polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofurans (PCDD/PCDF)

Part II

Source categories

Hexachlorobenzene, pentachlorobenzene, polychlorinated biphenyls, and polychlorinated dibenzo-*p*-dioxins and dibenzofurans are unintentionally formed and released from thermal processes involving organic matter and chlorine as a result of incomplete combustion or chemical reactions. The following industrial source categories have the potential for comparatively high formation and release of these chemicals to the environment:

- (a) Waste incinerators, including co-incinerators of municipal, hazardous or medical waste or of sewage sludge;
- (b) Cement kilns firing hazardous waste;
- (c) Production of pulp using elemental chlorine or chemicals generating elemental chlorine for bleaching;
- (d) The following thermal processes in the metallurgical industry:
 - (i) Secondary copper production;
 - (ii) Sinter plants in the iron and steel industry;
 - (iii) Secondary aluminium production;
 - (iv) Secondary zinc production.

Part III

Source categories

Hexachlorobenzene, pentachlorobenzene, polychlorinated biphenyls, and polychlorinated dibenzo-*p*-dioxins and dibenzofurans may also be unintentionally formed and released from the following source categories, including:

- (a) Open burning of waste, including burning of landfill sites;
- (b) Thermal processes in the metallurgical industry not mentioned in Part II;
- (c) Residential combustion sources;
- (d) Fossil fuel-fired utility and industrial boilers;
- (e) Firing installations for wood and other biomass fuels;
- (f) Specific chemical production processes releasing unintentionally formed persistent organic pollutants, especially production of chlorophenols and chloranil;
- (g) Crematoria;
- (h) Motor vehicles, particularly those burning leaded gasoline;
- (i) Destruction of animal carcasses;
- (j) Textile and leather dyeing (with chloranil) and finishing (with alkaline extraction);
- (k) Shredder plants for the treatment of end of life vehicles;
- (l) Smouldering of copper cables;
- (m) Waste oil refineries.

Part IV

Definitions

1. For the purposes of this Annex:

(a) “Polychlorinated biphenyls” means aromatic compounds formed in such a manner that the hydrogen atoms on the biphenyl molecule (two benzene rings bonded together by a single carbon-carbon bond) may be replaced by up to ten chlorine atoms; and

(b) “Polychlorinated dibenzo-*p*-dioxins” and “polychlorinated dibenzofurans” are tricyclic, aromatic compounds formed by two benzene rings connected by two oxygen atoms in polychlorinated dibenzo-*p*-dioxins and by one oxygen atom and one carbon-carbon bond in polychlorinated dibenzofurans and the hydrogen atoms of which may be replaced by up to eight chlorine atoms.

2. In this Annex, the toxicity of polychlorinated dibenzo-*p*-dioxins and dibenzofurans is

expressed using the concept of toxic equivalency which measures the relative dioxin-like toxic activity of different congeners of polychlorinated dibenzo-p-dioxins and dibenzofurans and coplanar polychlorinated biphenyls in comparison to 2,3,7,8-tetrachlorodibenzo-p-dioxin. The toxic equivalent factor values to be used for the purposes of this Convention shall be consistent with accepted international standards, commencing with the World Health Organization 1998 mammalian toxic equivalent factor values for polychlorinated dibenzo-p-dioxins and dibenzofurans and coplanar polychlorinated biphenyls. Concentrations are expressed in toxic equivalents.

Part V

General guidance on best available techniques and best environmental practices

This Part provides general guidance to Parties on preventing or reducing releases of the chemicals listed in Part I.

A. General prevention measures relating to both best available techniques and best environmental practices

Priority should be given to the consideration of approaches to prevent the formation and release of the chemicals listed in Part I. Useful measures could include:

- (a) The use of low-waste technology;
- (b) The use of less hazardous substances;
- (c) The promotion of the recovery and recycling of waste and of substances generated and used in a process;
- (d) Replacement of feed materials which are persistent organic pollutants or where there is a direct link between the materials and releases of persistent organic pollutants from the source;
- (e) Good housekeeping and preventive maintenance programmes;
- (f) Improvements in waste management with the aim of the cessation of open and other uncontrolled burning of wastes, including the burning of landfill sites. When considering proposals to construct new waste disposal facilities, consideration should be given to alternatives such as activities to minimize the generation of municipal and medical waste, including resource recovery, reuse, recycling, waste separation and promoting products that generate less waste. Under this approach, public health concerns should be carefully considered;
- (g) Minimization of these chemicals as contaminants in products;
- (h) Avoiding elemental chlorine or chemicals generating elemental chlorine for bleaching.

B. Best available techniques

The concept of best available techniques is not aimed at the prescription of any specific technique or technology, but at taking into account the technical characteristics of the installation concerned, its geographical location and the local environmental conditions. Appropriate control techniques to reduce releases of the chemicals listed in Part I are in general the same. In determining best available techniques, special consideration should be given, generally or in specific cases, to the following factors, bearing in mind the likely costs and benefits of a measure and consideration of precaution and prevention:

(a) General considerations:

- (i) The nature, effects and mass of the releases concerned: techniques may vary depending on source size;
- (ii) The commissioning dates for new or existing installations;
- (iii) The time needed to introduce the best available technique;
- (iv) The consumption and nature of raw materials used in the process and its energy efficiency;
- (v) The need to prevent or reduce to a minimum the overall impact of the releases to the environment and the risks to it;
- (vi) The need to prevent accidents and to minimize their consequences for the environment;
- (vii) The need to ensure occupational health and safety at workplaces;
- (viii) Comparable processes, facilities or methods of operation which have been tried with success on an industrial scale;
- (ix) Technological advances and changes in scientific knowledge and understanding.

(b) General release reduction measures: When considering proposals to construct new facilities or significantly modify existing facilities using processes that release chemicals listed in this Annex, priority consideration should be given to alternative processes, techniques or practices that have similar usefulness but which avoid the formation and release of such chemicals. In cases where such facilities will be constructed or significantly modified, in addition to the prevention measures outlined in section A of Part V the following reduction measures could also be considered in determining best available techniques:

- (i) Use of improved methods for flue-gas cleaning such as thermal or catalytic oxidation, dust precipitation, or adsorption;
- (ii) Treatment of residuals, wastewater, wastes and sewage sludge by, for example, thermal treatment or rendering them inert or chemical processes that detoxify them;
- (iii) Process changes that lead to the reduction or elimination of releases, such as moving to closed systems;

- (iv) Modification of process designs to improve combustion and prevent formation of the chemicals listed in this Annex, through the control of parameters such as incineration temperature or residence time.

C. Best environmental practices

The Conference of the Parties may develop guidance with regard to best environmental practices.

INFORMATION REQUIREMENTS AND SCREENING CRITERIA

1. A Party submitting a proposal to list a chemical in Annexes A, B and/or C shall identify the chemical in the manner described in subparagraph (a) and provide the information on the chemical, and its transformation products where relevant, relating to the screening criteria set out in subparagraphs (b) to (e):

(a) Chemical identity:

- (i) Names, including trade name or names, commercial name or names and synonyms, Chemical Abstracts Service (CAS) Registry number, International Union of Pure and Applied Chemistry (IUPAC) name; and
- (ii) Structure, including specification of isomers, where applicable, and the structure of the chemical class;

(b) Persistence:

- (i) Evidence that the half-life of the chemical in water is greater than two months, or that its half-life in soil is greater than six months, or that its half-life in sediment is greater than six months; or
- (ii) Evidence that the chemical is otherwise sufficiently persistent to justify its consideration within the scope of this Convention;

(c) Bio-accumulation:

- (i) Evidence that the bio-concentration factor or bio-accumulation factor in aquatic species for the chemical is greater than 5,000 or, in the absence of such data, that the log K_{ow} is greater than 5;
- (ii) Evidence that a chemical presents other reasons for concern, such as high bio-accumulation in other species, high toxicity or ecotoxicity; or
- (iii) Monitoring data in biota indicating that the bio-accumulation potential of the chemical is sufficient to justify its consideration within the scope of this Convention;

(d) Potential for long-range environmental transport:

- (i) Measured levels of the chemical in locations distant from the sources of its release that are of potential concern;
- (ii) Monitoring data showing that long-range environmental transport of the chemical, with the potential for transfer to a receiving environment, may have occurred via air, water or migratory species; or
- (iii) Environmental fate properties and/or model results that demonstrate that the chemical has a potential for long-range environmental transport through air, water or migratory species, with the potential for transfer to a receiving

environment in locations distant from the sources of its release. For a chemical that migrates significantly through the air, its half-life in air should be greater than two days; and

(e) Adverse effects:

- (i) Evidence of adverse effects to human health or to the environment that justifies consideration of the chemical within the scope of this Convention; or
- (ii) Toxicity or ecotoxicity data that indicate the potential for damage to human health or to the environment.

2. The proposing Party shall provide a statement of the reasons for concern including, where possible, a comparison of toxicity or ecotoxicity data with detected or predicted levels of a chemical resulting or anticipated from its long-range environmental transport, and a short statement indicating the need for global control.

3. The proposing Party shall, to the extent possible and taking into account its capabilities, provide additional information to support the review of the proposal referred to in paragraph 6 of Article 8. In developing such a proposal, a Party may draw on technical expertise from any source.

INFORMATION REQUIREMENTS FOR THE RISK PROFILE

The purpose of the review is to evaluate whether the chemical is likely, as a result of its long-range environmental transport, to lead to significant adverse human health and/or environmental effects, such that global action is warranted. For this purpose, a risk profile shall be developed that further elaborates on, and evaluates, the information referred to in Annex D and includes, as far as possible, the following types of information:

- (a) Sources, including as appropriate:
 - (i) Production data, including quantity and location;
 - (ii) Uses; and
 - (iii) Releases, such as discharges, losses and emissions;
- (b) Hazard assessment for the endpoint or endpoints of concern, including a consideration of toxicological interactions involving multiple chemicals;
- (c) Environmental fate, including data and information on the chemical and physical properties of a chemical as well as its persistence and how they are linked to its environmental transport, transfer within and between environmental compartments, degradation and transformation to other chemicals. A determination of the bio-concentration factor or bio-accumulation factor, based on measured values, shall be available, except when monitoring data are judged to meet this need;
- (d) Monitoring data;
- (e) Exposure in local areas and, in particular, as a result of long-range environmental transport, and including information regarding bio-availability;
- (f) National and international risk evaluations, assessments or profiles and labelling information and hazard classifications, as available; and
- (g) Status of the chemical under international conventions.

INFORMATION ON SOCIO-ECONOMIC CONSIDERATIONS

An evaluation should be undertaken regarding possible control measures for chemicals under consideration for inclusion in this Convention, encompassing the full range of options, including management and elimination. For this purpose, relevant information should be provided relating to socio-economic considerations associated with possible control measures to enable a decision to be taken by the Conference of the Parties. Such information should reflect due regard for the differing capabilities and conditions among the Parties and should include consideration of the following indicative list of items:

- (a) Efficacy and efficiency of possible control measures in meeting risk reduction goals:
 - (i) Technical feasibility; and
 - (ii) Costs, including environmental and health costs;
- (b) Alternatives (products and processes):
 - (i) Technical feasibility;
 - (ii) Costs, including environmental and health costs;
 - (iii) Efficacy;
 - (iv) Risk;
 - (v) Availability; and
 - (vi) Accessibility;
- (c) Positive and/or negative impacts on society of implementing possible control measures:
 - (i) Health, including public, environmental and occupational health;
 - (ii) Agriculture, including aquaculture and forestry;
 - (iii) Biota (biodiversity);
 - (iv) Economic aspects;
 - (v) Movement towards sustainable development; and
 - (vi) Social costs;
- (d) Waste and disposal implications (in particular, obsolete stocks of pesticides and clean-up of contaminated sites):
 - (i) Technical feasibility; and
 - (ii) Cost;
- (e) Access to information and public education;
- (f) Status of control and monitoring capacity; and
- (g) Any national or regional control actions taken, including information on alternatives, and other relevant risk management information.

**ARBITRATION AND CONCILIATION PROCEDURES FOR
SETTLEMENT OF DISPUTES
(Decision SC-1/2 of the Conference of the Parties)**

Part I

Arbitration procedure

The arbitration procedure for purposes of paragraph 2 (a) of Article 18 of the Convention shall be as follows:

Article 1

1. A Party may initiate recourse to arbitration in accordance with Article 18 of the Convention by written notification addressed to the other party to the dispute. The notification shall be accompanied by a statement of the claim, together with any supporting documents, and state the subject-matter of arbitration and include, in particular, the articles of the Convention the interpretation or application of which are at issue.

2. The claimant party shall notify the Secretariat that the parties are referring a dispute to arbitration pursuant to Article 18. The notification shall be accompanied by the written notification of the claimant party, the statement of claim and the supporting documents referred to in paragraph 1 above. The Secretariat shall forward the information thus received to all Parties.

Article 2

1. If a dispute is referred to arbitration in accordance with Article 1 above, an arbitral tribunal shall be established. It shall consist of three members.

2. Each of the parties to the dispute shall appoint an arbitrator and the two arbitrators so appointed shall designate by common agreement the third arbitrator, who shall be the President of the tribunal. The President of the tribunal shall not be a national of one of the parties to the dispute, nor have his or her usual place of residence in the territory of one of those parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

3. In disputes between more than two parties, parties in the same interest shall appoint one arbitrator jointly by agreement.

4. Any vacancy shall be filled in the manner prescribed for the initial appointment.

5. If the parties do not agree on the subject-matter of the dispute before the President of the arbitral tribunal is designated, the arbitral tribunal shall determine the subject-matter.

Article 3

1. If one of the parties to the dispute does not appoint an arbitrator within two months of the date on which the respondent party receives the notification of the arbitration, the other

party may inform the Secretary-General of the United Nations, who shall make the designation within a further two-month period.

2. If the President of the arbitral tribunal has not been designated within two months of the date of the appointment of the second arbitrator, the Secretary-General of the United Nations shall, at the request of a party, designate the President within a further two-month period.

Article 4

The arbitral tribunal shall render its decisions in accordance with the provisions of the Convention and international law.

Article 5

Unless the parties to the dispute otherwise agree, the arbitral tribunal shall determine its own rules of procedure.

Article 6

The arbitral tribunal may, at the request of one of the parties, indicate essential interim measures of protection.

Article 7

The parties to the dispute shall facilitate the work of the arbitral tribunal and, in particular, using all means at their disposal, shall:

- (a) Provide it with all relevant documents, information and facilities; and
- (b) Enable it, when necessary, to call witnesses or experts and receive their evidence.

Article 8

The parties and the arbitrators are under an obligation to protect the confidentiality of any information they receive in confidence during the proceedings of the arbitral tribunal.

Article 9

Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the costs of the tribunal shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all its costs, and shall furnish a final statement thereof to the parties.

Article 10

A party that has an interest of a legal nature in the subject matter of the dispute which may be affected by the decision in the case may intervene in the proceedings with the consent of the tribunal.

Article 11

The tribunal may hear and determine counterclaims arising directly out of the subject matter of the dispute.

Article 12

Decisions both on procedure and substance of the arbitral tribunal shall be taken by a majority vote of its members.

Article 13

1. If one of the parties to the dispute does not appear before the arbitral tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to make its award. Absence of a party or a failure of a party to defend its case shall not constitute a bar to the proceedings.

2. Before rendering its final decision, the arbitral tribunal must satisfy itself that the claim is well founded in fact and law.

Article 14

The tribunal shall render its final decision within five months of the date on which it is fully constituted unless it finds it necessary to extend the time limit for a period which should not exceed five more months.

Article 15

The final decision of the arbitral tribunal shall be confined to the subject matter of the dispute and shall state the reasons on which it is based. It shall contain the names of the members who have participated and the date of the final decision. Any member of the tribunal may attach a separate or dissenting opinion to the final decision.

Article 16

The award shall be binding on the parties to the dispute. The interpretation of the Convention given by the award shall also be binding upon a Party intervening under Article 10 above insofar as it relates to matters in respect of which that Party intervened. The award shall be without appeal unless the parties to the dispute have agreed in advance to an appellate procedure.

Article 17

Any controversy which may arise between those bound by the final decision in accordance with Article 16 above, as regards the interpretation or manner of implementation of that decision, may be submitted by any of them for decision to the arbitral tribunal which rendered it.

Part II

Conciliation procedure

The conciliation procedure for purposes of paragraph 6 of Article 18 of the Convention shall be as follows:

Article 1

1. A request by a party to a dispute to establish a conciliation commission in consequence of paragraph 6 of Article 18 shall be addressed in writing to the Secretariat. The Secretariat shall forthwith inform all Parties to the Convention accordingly.

2. The conciliation commission shall, unless the parties otherwise agree, be composed of three members, one appointed by each party concerned and a President chosen jointly by those members.

Article 2

In disputes between more than two parties, parties in the same interest shall appoint their members of the commission jointly by agreement.

Article 3

If any appointments by the parties are not made within two months of the date of receipt by the Secretariat of the written request referred to in Article 1, the Secretary-General of the United Nations shall, upon request by a party, make those appointments within a further two-month period.

Article 4

If the President of the conciliation commission has not been chosen within two months of the second member of the commission being appointed, the Secretary-General of the United Nations shall, upon request by a party, designate the President within a further two-month period.

Article 5

1. The conciliation commission shall, unless the parties to the dispute otherwise agree, determine its own rules of procedure.

2. The parties and members of the commission are under an obligation to protect the confidentiality of any information they receive in confidence during the proceedings of the commission.

Article 6

The conciliation commission shall take its decisions by a majority vote of its members.

Article 7

The conciliation commission shall render a report with recommendations for resolution of the dispute within twelve months of being established, which the parties shall consider in good faith.

Article 8

Any disagreement as to whether the conciliation commission has competence to consider a matter referred to it shall be decided by the commission.

Article 9

The costs of the commission shall be borne by the parties to the dispute in shares agreed by them. The commission shall keep the record of all its costs and shall furnish a final statement thereof to the parties.

附件三

泰國環境用藥各類註冊申請單(依序
爲產品、製造、輸入、輸出與販賣)

คำขอขึ้นทะเบียนวัตถุอันตราย

วันที่.....เดือน.....พ.ศ.....

ข้าพเจ้า.....อายุ.....ปี สัญชาติ.....
(บุคคลธรรมดา/นิติบุคคล)

สถานที่ติดต่อผู้ขอขึ้นทะเบียนวัตถุอันตราย เลขที่..... หมู่ที่..... ตรอก/ซอย.....

ถนน..... ตำบล/แขวง..... อำเภอ/เขต.....

จังหวัด..... รหัสไปรษณีย์..... โทรศัพท์..... โทรสาร.....

ขอขึ้นทะเบียนวัตถุอันตรายชนิดที่.....ตามรายการดังต่อไปนี้

ชื่อวัตถุอันตราย	สูตรและอัตราส่วนของวัตถุอันตราย	ชื่อทางการค้าหรือชื่อย่อ(ถ้ามี)	ผู้ผลิตและแหล่งผลิต	หมายเหตุ

- พร้อมกันนี้ข้าพเจ้าได้ส่ง
- ☐ ข้อมูลความปลอดภัย

☐ สำเนาบัตรประจำตัวประชาชน/สำเนาใบสำคัญประจำตัวคนต่างด้าว

☐ สำเนาหนังสือรับรองการจดทะเบียนเป็นนิติบุคคล

☐ ข้อกำหนดเฉพาะของวัตถุอันตราย(specification)

☐ เอกสารหรือภาพถ่ายแสดงลักษณะภาชนะบรรจุวัตถุอันตราย

☐ เอกสารหรือภาพถ่ายแสดงการบรรจุหีบห่อหรือผูกมัด

☐ ตัวอย่างวัตถุอันตราย ปริมาณ.....(กิโลกรัม/ลิตร)

☐ อื่นๆ(ระบุ).....

มาเพื่อประกอบการพิจารณาด้วย

(ลายมือชื่อ).....ผู้ขอ

ใบแจ้งประเภทหรือชนิดของอุตสาหกรรมที่จะนำวัตถุดิบทรายไปใช้
ตามประกาศกรมโรงงานอุตสาหกรรม เรื่อง ให้จัดส่งข้อมูลเพิ่มเติมเพื่อประกอบการพิจารณา
รับขึ้นทะเบียนวัตถุดิบทรายทางอุตสาหกรรม พ.ศ.2548

วัตถุดิบทรายตามคำขอขึ้นทะเบียนข้างต้น มีวัตถุประสงค์จะนำไปใช้ในอุตสาหกรรม ดังต่อไปนี้

1. ชนิดของอุตสาหกรรม.....โดยมีวัตถุประสงค์เพื่อ
☐ ใช้เป็นวัตถุดิบในการผลิต.....
.....
☐ ใช้ในกระบวนการ.....
.....
2. ชนิดของอุตสาหกรรม.....โดยมีวัตถุประสงค์เพื่อ
☐ ใช้เป็นวัตถุดิบในการผลิต.....
.....
☐ ใช้ในกระบวนการ.....
.....
3. ชนิดของอุตสาหกรรม.....โดยมีวัตถุประสงค์เพื่อ
☐ ใช้เป็นวัตถุดิบในการผลิต.....
.....
☐ ใช้ในกระบวนการ.....
.....

(ลงชื่อ).....ผู้แจ้ง

()

(...../...../.....)

(ประทับตราของบริษัท)

พร้อมกันนี้ข้าพเจ้าได้ส่ง

- ☐ สำเนาบัตรประจำตัวประชาชน/สำเนาใบสำคัญประจำตัวคนต่างด้าว
- ☐ สำเนาหนังสือรับรองการจดทะเบียนเป็นนิติบุคคล
- ☐ สำเนาใบสำคัญการขึ้นทะเบียนวัตถุอันตราย (ในกรณีที่ผู้ขออนุญาตผลิตได้ขึ้นทะเบียนไว้แล้ว)
- ☐ แผนที่สังเขปแสดงสถานที่ผลิตวัตถุอันตรายและบริเวณข้างเคียง
- ☐ แผนที่สังเขปแสดงสถานที่เก็บรักษาวัตถุอันตรายและบริเวณข้างเคียง
- ☐ แผนผังภายในอาคารที่ใช้เป็นสถานที่ผลิตและสถานที่เก็บรักษาวัตถุอันตรายทั้งที่เป็นวัตถุดิบและผลิตภัณฑ์
- ☐ เอกสารแสดงกรรมวิธีการผลิต
- ☐ เอกสารแสดงความรู้ความชำนาญของผู้เชี่ยวชาญหรือบุคลากรเฉพาะรับผิดชอบสำหรับการผลิต
- ☐ เอกสารแสดงลักษณะภาชนะบรรจุที่จะใช้และการหุ้มห่อหรือผูกมัดภาชนะบรรจุวัตถุอันตราย
- ☐ เอกสารแสดงข้อมูลความปลอดภัยของวัตถุอันตราย เช่น Materials Safety Data Sheet
- ☐ อื่นๆ ระบุ

มาเพื่อประกอบการพิจารณา

(ลายมือชื่อ) ผู้ขออนุญาต

คำขออนุญาตนำเข้าวัตถุดิบทราย

วันที่ เดือน พ.ศ.

ข้าพเจ้า อายุ ปี สัญชาติ.....

(บุคคลธรรมดา/นิติบุคคล)

สถานที่ติดต่อของข้าพเจ้าตั้งอยู่เลขที่ หมู่ที่ ตรอก/ซอย

ถนน ตำบล/แขวง อำเภอ/เขต

จังหวัด รหัสไปรษณีย์ โทรศัพท์ โทรสาร

สถานที่เก็บรักษาวัตถุดิบทรายชื่อ

ตั้งอยู่เลขที่ หมู่ที่ ตรอก/ซอย ถนน

ตำบล/แขวง อำเภอ/เขต จังหวัด

รหัสไปรษณีย์ โทรศัพท์ โทรสาร

ขออนุญาตนำเข้าวัตถุดิบทรายตามรายการ ดังต่อไปนี้

ชื่อวัตถุดิบทราย	สูตร อัตราส่วน และลักษณะ	ชื่อทางการค้า (ถ้ามี)	ผู้ผลิต	ประเทศ ที่ผลิต	ปริมาณ	หมายเหตุ

ชื่อผู้เชี่ยวชาญหรือบุคลากรเฉพาะรับผิดชอบสำหรับการเก็บรักษา (ในกรณีที่มีประกาศตามมาตรา 20 (2)
แห่งพระราชบัญญัติวัตถุอันตราย พ.ศ. 2535 บังคับให้ต้องมี)

พร้อมกันนี้ข้าพเจ้าได้ส่ง

- ☐ สำเนาบัตรประจำตัวประชาชน/สำเนาใบสำคัญประจำตัวคนต่างด้าว
- ☐ สำเนาหนังสือรับรองการจดทะเบียนเป็นนิติบุคคล
- ☐ สำเนาใบสำคัญการขึ้นทะเบียนวัตถุดิบทราย (ในกรณีที่ผู้ขออนุญาตนำเข้าได้ขึ้นทะเบียนไว้แล้ว)

- ☐ สำเนาผลการวิเคราะห์วัตถุอันตราย
- ☐ แผนที่สังเขปแสดงสถานที่เก็บรักษาวัตถุอันตรายและบริเวณข้างเคียง
- ☐ แผนผังภายในอาคารที่ใช้เป็นสถานที่เก็บรักษาวัตถุอันตราย (ในกรณีที่มีประกาศตามมาตรา 20 (1) แห่งพระราชบัญญัติวัตถุอันตราย พ.ศ.2535 ให้สถานที่เก็บรักษาวัตถุอันตรายต้องเป็นไปตามหลักเกณฑ์ที่กำหนด)
- ☐ เอกสารแสดงความรู้ความชำนาญของผู้เชี่ยวชาญหรือนุคลากรเฉพาะรับผิดชอบสำหรับการเก็บรักษา
- ☐ เอกสารแสดงลักษณะภาชนะบรรจุที่จะใช้และการหุ้มห่อหรือผูกมัดภาชนะบรรจุวัตถุอันตราย
- ☐ เอกสารแสดงข้อมูลความปลอดภัยของวัตถุอันตราย เช่น Materials Safety Data Sheet
- ☐ อื่นๆ ระบุ

มาเพื่อประกอบการพิจารณา

(ลายมือชื่อ) ผู้ขออนุญาต

คำขออนุญาตส่งออกวัตถุอันตราย

วันที่ เดือน พ.ศ.

ข้าพเจ้า อายุ ปี สัญชาติ.....

(บุคคลธรรมดา/นิติบุคคล)

สถานที่ติดต่อของข้าพเจ้าตั้งอยู่เลขที่ หมู่ที่ ตรอก/ซอย

ถนน ตำบล/แขวง อำเภอ/เขต

จังหวัด รหัสไปรษณีย์ โทรศัพท์ โทรสาร

สถานที่เก็บรักษาวัตถุอันตรายชื่อ

ตั้งอยู่เลขที่ หมู่ที่ ตรอก/ซอย ถนน

ตำบล/แขวง อำเภอ/เขต จังหวัด

รหัสไปรษณีย์ โทรศัพท์ โทรสาร

ขออนุญาตส่งออกวัตถุอันตรายตามรายการ ดังต่อไปนี้

ชื่อวัตถุอันตราย	สูตร อัตราส่วน และลักษณะ	ชื่อทางการค้า (ถ้ามี)	ประเทศ ปลายทาง	ปริมาณ	หมายเหตุ

ชื่อผู้เชี่ยวชาญหรือบุคลากรเฉพาะรับผิดชอบสำหรับการเก็บรักษา (ในกรณีที่มีประกาศตามมาตรา 20 (2)

แห่งพระราชบัญญัติวัตถุอันตราย พ.ศ. 2535 บังคับให้ต้องมี)

พร้อมกันนี้ข้าพเจ้าได้ส่ง

- ☐ สำเนาบัตรประจำตัวประชาชน/สำเนาใบสำคัญประจำตัวคนต่างด้าว
- ☐ สำเนาหนังสือรับรองการจดทะเบียนเป็นนิติบุคคล
- ☐ สำเนาใบสำคัญการขึ้นทะเบียนวัตถุอันตราย (ในกรณีที่ผู้ขออนุญาตส่งออกได้ขึ้นทะเบียนไว้แล้ว)
- ☐ สำเนาผลการวิเคราะห์วัตถุอันตราย
- ☐ แผนที่สังเขปแสดงสถานที่เก็บรักษาวัตถุอันตรายและบริเวณข้างเคียง

- ☐ แผนผังภายในอาคารที่ใช้เป็นสถานที่เก็บรักษาวัตถุอันตราย (ในกรณีที่มีประกาศตามมาตรา 20 (1) แห่งพระราชบัญญัติวัตถุอันตราย พ.ศ.2535 ให้สถานที่เก็บรักษาวัตถุอันตรายต้องเป็นไปตามหลักเกณฑ์ที่กำหนด)
- ☐ เอกสารแสดงความรู้ความชำนาญของผู้เชี่ยวชาญหรือบุคลากรเฉพาะรับผิดชอบสำหรับการเก็บรักษา
- ☐ เอกสารแสดงลักษณะภาชนะบรรจุที่จะใช้และการหุ้มห่อหรือผูกมัดภาชนะบรรจุวัตถุอันตราย
- ☐ เอกสารแสดงข้อมูลความปลอดภัยของวัตถุอันตราย เช่น Materials Safety Data Sheet
- ☐ อื่นๆ ระบุ

มาเพื่อประกอบการพิจารณา

(ลายมือชื่อ) ผู้ขออนุญาต

คำขออนุญาตมิไว้ในครอบครองซึ่งวัตถุอันตราย

วันที่ เดือน พ.ศ.

ข้าพเจ้า อายุ ปี สัญชาติ.....

(บุคคลธรรมดา/นิติบุคคล)

สถานที่ติดต่อของข้าพเจ้าตั้งอยู่เลขที่ หมู่ที่ ตรอก/ซอย

ถนน ตำบล/แขวง อำเภอ/เขต

จังหวัด รหัสไปรษณีย์ โทรศัพท์ โทรสาร

สถานที่เก็บรักษาวัตถุอันตรายชื่อ

ตั้งอยู่เลขที่ หมู่ที่ ตรอก/ซอย ถนน

ตำบล/แขวง อำเภอ/เขต จังหวัด

รหัสไปรษณีย์ โทรศัพท์ โทรสาร

ขออนุญาตมิไว้ในครอบครองวัตถุอันตราย โดยมีวัตถุประสงค์ในการครอบครองเพื่อ

☐ ขาย ☐ ขนส่ง ☐ ใช้ ☐ อื่นๆ (ระบุ).....

ชื่อวัตถุอันตรายที่ขออนุญาตครอบครอง

(ถ้ามีหลายรายการให้ระบุว่า “ดังบัญชีรายชื่อแนบท้าย”)

ปริมาณการครอบครองสูงสุด เมตริกตัน

พื้นที่เฉพาะในส่วนของการครอบครองสูงสุด ตารางเมตร

ชื่อผู้เชี่ยวชาญหรือบุคลากรเฉพาะรับผิดชอบสำหรับการเก็บรักษา (ในกรณีที่มีประกาศตามมาตรา 20 (2)

แห่งพระราชบัญญัติวัตถุอันตราย พ.ศ. 2535 บังคับให้ต้องมี)

พร้อมกันนี้ข้าพเจ้าได้ส่ง

- ☐ สำเนาบัตรประจำตัวประชาชน/สำเนาใบสำคัญประจำตัวคนต่างด้าว
- ☐ สำเนาหนังสือรับรองการจดทะเบียนเป็นนิติบุคคล
- ☐ หลักฐานแสดงการรับครอบครองวัตถุอันตราย
- ☐ รายชื่อวัตถุอันตรายที่มีไว้ในครอบครองในกรณีที่มีมากกว่าหนึ่งรายการ
- ☐ แผนที่สังเขปแสดงสถานที่เก็บรักษาวัตถุอันตรายและบริเวณข้างเคียง
- ☐ เอกสารแสดงความรู้ความชำนาญของผู้เชี่ยวชาญหรือบุคลากรเฉพาะรับผิดชอบสำหรับการเก็บรักษา

- ☐ เอกสารแสดงลักษณะภาชนะบรรจุที่จะใช้และการหุ้มห่อหรือผูกมัดภาชนะบรรจุวัตถุอันตราย
- ☐ เอกสารแสดงข้อมูลความปลอดภัยของวัตถุอันตราย เช่น Materials Safety Data Sheet
- ☐ อื่นๆ ระบุ

มาเพื่อประกอบการพิจารณา

(ลายมือชื่อ) ผู้ขออนุญาต

附件四

泰國危害物質清單

รายชื่อวัตถุอันตรายในความรับผิดชอบของสำนักงานคณะกรรมการอาหารและยา

(ตามบัญชีท้ายประกาศกระทรวงอุตสาหกรรม เรื่องบัญชีรายชื่อวัตถุอันตราย พ.ศ. 2538 ลงวันที่ 17 กุมภาพันธ์ พ.ศ. 2538 แก้ไขเพิ่มเติมตามประกาศ พ.ศ.2546 พ.ศ.2547 และ พ.ศ.2548)

ลำดับที่	วัตถุอันตราย	ชนิดของวัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศฉบับที่ พ.ศ.	หมายเหตุ
1	1-(<i>p</i> -methoxyphenyl) -2-methyl-1,3-propanediol-methylene ether	3	5689-72-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
2	1,1,1-trichloroethane; methyl chloroform	4	71-55-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุข	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ. 3 และเงื่อนไขที่ประกาศเมื่อ พ.ศ. 2546
3	1,1,2-trichloroethane; vinyl trichloride; beta-trichloroethane	3	79-00-5	ในผลิตภัณฑ์ที่นำมาใช้เพื่อประโยชน์ในการลบ หรือแก้คำผิด หรือเพื่อการละลายสารเคมีที่ใช้ในการลบหรือแก้คำผิด หรือซักแห้งผ้า หรือสิ่งทออื่น ๆ	2546 ลว.22 ก.ย.46	
4	1,2,3,4-tetrahydro-2-naphthol	3	530-91-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
5	1,3-dichloro-5,5-dimethylhydantoin	3	118-52-5	ในผลิตภัณฑ์ที่นำมาใช้เพื่อประโยชน์ในการซักผ้าขาวการฆ่าเชื้อโรค หรือกำจัดกลิ่นในสระว่ายน้ำ	2546 ลว.22 ก.ย.46	
6	2,4,5 - TCP; 2,4,5 - trichlorophenol	4	95-95-4		2546 ลว.22 ก.ย.46	
7	2,4-dinitroanisole	4	119-27-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
8	2-nitro-2-ethyl-1,3-propanediol butyraldehyde acetal	3	5702-40-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
9	2-nitro-2-methyl-1,3-propanediol	3	77-49-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
10	2-phenylcyclohexanol	4	1444-64-0	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
11	2-phenylethyl-alpha-hydroxy isobutyrate	3	10290-01-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
12	4-aminodiphenyl	4	92-67-1		2546 ลว.22 ก.ย.46	
13	4-nitrodiphenyl	4	92-93-3		2546 ลว.22 ก.ย.46	
14	acetophenone,4'-methoxy-3'-methyl	4	10024-90-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกันควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุดิบ	ชนิดของ วัตถุดิบ	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
15	acids	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขเพื่อ ประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้นผิวนั่ง เครื่องสุขภัณฑ์ และวัสดุต่าง ๆ หรือการแก้ไขการอุดตัน ของท่อ หรือทางระบายสิ่งปฏิกูล	2546 ถว.22 ก.ย.46	
16	aldehydes	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขเพื่อ ประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้นผิวนั่ง เครื่องสุขภัณฑ์ และวัสดุต่าง ๆ หรือการแก้ไขการอุดตัน ของท่อ หรือทางระบายสิ่งปฏิกูล	2546 ถว.22 ก.ย.46	
17	aldicarb	4	116-06-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 พ.ศ. 2547 ถว. 30 ก.ย.47	
18	aldrin	4	309-00-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกันควบคุมไล่ กำจัดแมลงและสัตว์อื่น	2546 ถว.22 ก.ย.46	
19	alkalis	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขเพื่อ ประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้นผิวนั่ง เครื่องสุขภัณฑ์ และวัสดุต่าง ๆ หรือการแก้ไขการอุดตัน ของท่อ หรือทางระบายสิ่งปฏิกูล	2546 ถว.22 ก.ย.46	
20	alkyl cyanoacrylate	1	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขเพื่อ ประโยชน์ในการทำให้เกิดการยึดหรือติดกันของพื้นผิว ของวัสดุ	ฉบับที่ 3 พ.ศ. 2548 ถว.21 พ.ย.48	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
21	alpha,alpha'-dimethyl-alpha-carbobutoxy - dihydro-gamma-pyrone	3	532-34-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
22	alpha-chlorohydrin	3	96-24-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์ทะเล	2546 ลว.22 ก.ย.46	
23	amitraz	3	33089-61-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
24	amitrole	4	61-82-5		2546 ลว.22 ก.ย.46	
25	amphoteric surfactants	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขเพื่อ ประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้น ฝาผนัง เครื่องสุขภัณฑ์ และวัสดุต่างๆ หรือการแก้ไขการอุดตัน ของท่อ หรือทางระบายสิ่งปฏิกูล	ฉบับที่ 3 2548 ลว.21พ.ย.48	
26	anionic surfactants	1	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขเพื่อ ประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้น ฝาผนัง เครื่องสุขภัณฑ์ และวัสดุต่างๆ หรือการแก้ไขการอุดตัน ของท่อ หรือทางระบายสิ่งปฏิกูล	ฉบับที่ 3 2548 ลว.21พ.ย.48	
27	ANTU	4	86-88-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์ทะเล	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
28	arsenic and arsenic compounds	4	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 3 2548 ลว.21พ.ย.48	
29	asbestos-amosite	4	12172-73-5		2546 ลว.22 ก.ย.46	
30	azamethiphos	3	35575-96-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ. 2 ที่ประกาศเมื่อ พ.ศ. 2546
31	<i>Bacillus thuringiensis</i>	3	68038-71-1	ในผลิตภัณฑ์ที่มีสารสำคัญที่ได้มาจากหรือเป็นผลผลิตของเชื้อจุลินทรีย์ ที่ใช้เพื่อประโยชน์แก่การระงับและป้องกันอันตรายแก่บุคคล โดยมุ่งหมายในการกำจัดตัวอ่อนของยุงหรือแมลง	2546 ลว.22 ก.ย.46	
32	barium carbonate	3	513-77-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
33	bendiocarb	3	22781-23-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุมไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
34	benzidine	4	92-87-5		2546 ลว.22 ก.ย.46	
35	benzyl benzoate	2	120-51-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุมไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
36	beta-HCH; 1,3,5/2,4,6-hexachlorocyclohexane	4	319-85-7		2546 ลว.22 ก.ย.46	
37	BHC; HCH	4	608-73-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุมไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
38	bis (chloromethyl) ether	4	542-88-1		2546 ลว.22 ก.ย.46	
39	boric acid; boracic acid; o -boric acid	3	10043-35-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุมไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
40	brodifacoum	3	56073-10-0	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
41	bromadiolone	3	28772-56-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
42	bromophos	3	2104-96-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุมไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
43	bromophos-ethyl	3	4824-78-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุมไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
44	cadmium and cadmium compounds	4	-		2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
45	calcium arsenate	4	7778-44-1		2546 ลว.22 ก.ย.46	
46	calcium hypochlorite	1	7778-54-3	ในผลิตภัณฑ์ที่นำมาใช้เพื่อประโยชน์ในการฆ่าเชื้อโรค หรือกำจัดกลิ่นในสระว่ายน้ำ	ฉบับที่ 3 2548 ลว.21พ.ย.48	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546 เฉพาะเงื่อนไขนี้แต่ยังคง เป็น วอ.3 หากใช้ตาม เงื่อนไขที่ระบุใน chlorine and chlorine releasing substances
47	calomel	4	10112-91-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว.30 ก.ย.47	
48	capsaicin	4	404-86-4	ในผลิตภัณฑ์ที่นำมาใช้เพื่อขัดขวางระบบการทำงานของ ร่างกายเป็นการชั่วคราว เพื่อการป้องกันตัว หรือทำร้ายผู้อื่น	2546 ลว. 22 ก.ย.46	
49	captafol	4	2425-06-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว.30 ก.ย.47	
50	carbaryl	3	63-25-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
51	carbon tetrachloride; tetrachloromethane	4	56-23-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขเพื่อ ประโยชน์ในการลบหรือแก้คำผิด หรือเพื่อละลายสารเคมี ที่ใช้ลบหรือแก้คำผิด หรือซักแห้งผ้า หรือสิ่งทออื่น	2546 ลว.22 ก.ย.46	
52	cationic surfactants	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขเพื่อ ประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้น ฝาผนัง เครื่องสุขภัณฑ์ และวัสดุต่างๆ หรือการแก้ไขการอุดตัน ของท่อ หรือทางระบายสิ่งปฏิกูล	ฉบับที่ 3 2548 ลว.21พ.ย.48	
53	chloranil	4	118-75-2		2546 ลว.22 ก.ย.46	
54	chlordane	4	57-74-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
55	chlordecone	4	143-50-0	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
56	chlordimeform	4	6164-98-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
57	chlorfenvinphos [(Z) - + (E) - isomers]	3	470-90-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
58	chlorhexidine salts	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขเพื่อ ประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้นผิวนั่ง เครื่องสุขภัณฑ์ และวัสดุต่าง ๆ หรือการแก้ไขการอุดฟัน ของท่อ หรือทางระบายสิ่งปฏิกูล	2546 ลง.22 ก.ย.46	
59	chlorine and chlorine releasing substances	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขเพื่อ ประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้น ผาผนัง เครื่องสุขภัณฑ์ และวัสดุต่าง ๆ หรือการแก้ไขการอุดฟัน ของท่อ หรือทางระบายสิ่งปฏิกูล	2546 ลง.22 ก.ย.46	
60	chlormephos	3	24934-91-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลง.22 ก.ย.46	
61	chlorobenzilate	4	510-15-6		2546 ลง.22 ก.ย.46	
62	chlorofluorocarbons	4	-	เฉพาะที่ใช้เป็นสารขับเคลื่อนในผลิตภัณฑ์สำหรับฉีดหรือพ่น ยกเว้นในผลิตภัณฑ์ยาและผลิตภัณฑ์ที่ทำให้ผิวหนังเย็น	2546 ลง.22 ก.ย.46	
63	chloroform; trichloromethane	4	67-66-3	ในผลิตภัณฑ์วัตถุอันตรายที่ใช้ในบ้านเรือนหรือทาง สาธารณสุข	ฉบับที่ 3 2548 ลง.21พ.ย.48	
64	chlorophacinone	3	3691-35-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์ทะ	2546 ลง.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
65	chlorpyrifos	3	2921-88-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
66	chlorpyrifos-methyl	2	5598-13-0	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
67	chlorthiophos[isomer(i)]	3	21923-23-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
68	cholecalciferol	2	67-97-0	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
69	cis-bicyclo (2,2,1-heptene-2,3- dicarboxylic acid) methyl ester	2	5826-73-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
70	citronella oil	2	8000-29-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
71	copper arsenate hydroxide	4	16102-92-4		2546 ลว.22 ก.ย.46	
72	coumafuryl	3	117-52-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
73	coumaphos	3	56-72-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
74	coumatetralyl	3	5836-29-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
75	crimidine	4	535-89-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546
76	crotoxyphos	3	7700-17-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
77	crufomate	3	299-86-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
78	cyanophos	3	2636-26-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
79	cyclohexane carboxylic acid	3	98-89-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
80	cycloheximide	4	66-81-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
81	cyclohexyl acetoacetate	2	6947-02-0	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
82	DBCP	4	96-12-8		2546 ลว.22 ก.ย.46	
83	DDT	4	50-29-3		2546 ลว.22 ก.ย.46	
84	DEET	3	134-62-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
85	di(phenylmercury)dodecenyl succinate; di(phenylmercury)dodecenyl-3-succinate	4	27236-65-3		2546 ลว.22 ก.ย.46	
86	diazinon	3	333-41-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
87	dibutyl phthalate	3	84-74-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
88	dichloroisocyanuric acid and its salts	1	-	ในผลิตภัณฑ์ที่นำมาใช้เพื่อประโยชน์ในการฆ่าเชื้อโรค หรือกำจัดกลิ่นในสระว่ายน้ำ	ฉบับที่ 3 2548 ลว. 21พ.ย.48	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546 เฉพาะเงื่อนไขนี้แต่ยังคง เป็น วอ.3 หากใช้ตามเงื่อนไข ที่ระบุใน chlorine and chlorine releasing
89	dichlorvos	3	62-73-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
90	dicofol	4	115-32-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
91	dicrotophos	4	141-66-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
92	dieldrin	4	60-57-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
93	diethyl phthalate	3	84-66-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่ นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
94	diethylene glycol monobutyl ether acetate	4	124-17-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
95	difenacoum	3	56073-07-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
96	diflubenzuron	3	35367-38-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
97	di-isopropyl tartrate	2	2217-15-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
98	dimethyl phthalate	3	131-11-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
99	dimetilan	3	644-64-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
100	dinitrocresol; DNOC	4	534-52-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุข	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
101	dinoseb and dinoseb salts	4	88-85-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
102	dioxacarb	3	6988-21-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
103	dioxathion	3	78-34-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
104	diphacinone	3	82-66-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
105	dyes	4	-	ในผลิตภัณฑ์อาหารหรือผสมอาหาร	2546 ลว.22 ก.ย.46	
106	EDB; ethylene dibromide	4	106-93-4		2546 ลว.22 ก.ย.46	
107	endosulfan	4	115-29-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
108	endrin	4	72-20-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุดิบ	ชนิดของ วัตถุดิบ	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
109	EPN	4	2104-64-5		2546 ลว.22 ก.ย.46	
110	ergocalciferol	3	50-14-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุข ที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	ฉบับที่ 3 2548 ลว.21พ.ย.48	
111	ethanethiol; ethyl mercaptan; ethyl sulfhydrate	4	75-08-1	ในผลิตภัณฑ์ที่นำมาใช้เพื่อขัดขวางระบบการทำงานของร่างกายเป็นการชั่วคราวเพื่อการป้องกันตัวหรือทำร้ายผู้อื่น	2546 ลว.22 ก.ย.46	
112	ethanol,2,2'-thiodi-,diacetate	2	4275-28-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
113	ethion	4	563-12-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
114	ethyl ester of epoxy methylphenyl acrylic acid	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
115	ethyl hexyleneglycol; ethyl hexane diol; ethohexadiol	4	94-96-2		2546 ลว.22 ก.ย.46	
116	ethylcyanocyclohexyl acetate	3	1331-45-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

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117	ethylene dichloride	4	107-06-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
118	ethylene oxide; 1,2-epoxyethane	4	75-21-8	เว้นแต่เพื่อการใช้ฆ่าเชื้อโรคในสถานพยาบาล	2546 ลว.22 ก.ย.46	
119	fenchlorphos	3	299-84-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
120	fenitrothion	3	122-14-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
121	fenoxycarb	2	72490-01-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
122	fenthion	3	55-38-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
123	flocoumafen	3	90035-08-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
124	fluoroacetamide	4	640-19-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	

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125	fluoroacetate sodium	4	62-74-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
126	fluoroacetic acid and its salts	4	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
127	heptachlor	4	76-44-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
128	heptenophos	3	23560-59-0	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
129	hexabromobiphenyl	4	36355-01-8		2546 ลว.22 ก.ย.46	
130	hexachlorobenzene	4	118-74-1		2546 ลว.22 ก.ย.46	
131	hexahydrophthalate diethyl	2	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
132	hydracrylate-beta-phenyl ethyl	2	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
133	hydramethylnon	3	67485-29-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ. 2 ที่ประกาศเมื่อ พ.ศ. 2546
134	hydrocyanic acid; hydrogen cyanide	4	74-90-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุข	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
135	hydroprene	3	41096-46-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน กำจัดแมลง โดยการควบคุมการเจริญเติบโตของแมลง	2546 ลว.22 ก.ย.46	
136	imidacloprid	3	105827-78-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
137	insect growth regulators	2	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน กำจัดแมลง โดยการควบคุมการเจริญเติบโตของแมลง	2546 ลว.22 ก.ย.46	
138	isazofos	4	42509-80-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
139	isobenzan	4	297-78-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	

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140	isodrin	4	465-73-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
141	isopropyl cinnamate	3	7780-06-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
142	jodfenphos	2	18181-70-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
143	kelevan	4	4234-79-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
144	kinoprene	3	37882-31-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน กำจัดแมลง โดยการควบคุมการเจริญเติบโตของแมลง	2546 ลว.22 ก.ย.46	
145	lead arsenate	4	7784-40-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
146	lindane(>99%gamma-HCH or gamma-BHC)	3	58-89-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

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147	malathion	3	121-75-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
148	mecarbam	3	2595-54-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
149	mercury compounds	4	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุข ที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลง กำจัดเชื้อราและสัตว์อื่น	ฉบับที่ 3 2548 ลว.21พ.ย.48	
150	methacrifos	2	62610-77-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
151	methamidophos	4	10265-92-6		2546 ลว.22 ก.ย.46	
152	methanol; methyl alcohol	1	67-56-1	ในผลิตภัณฑ์อุปโภคที่ใช้ในบ้านเรือนที่มีสารนี้เป็นตัวทำละลาย	2546 ลว.22 ก.ย.46	
153	methanol; methyl alcohol	4	67-56-1	ในผลิตภัณฑ์สำหรับฉีดหรือพ่น และในผลิตภัณฑ์ที่ใช้ต้องสัมผัสกับผิวหนังหรืออาหาร	2546 ลว.22 ก.ย.46	
154	methanol; methyl alcohol >1%v/v	4	67-56-1	ในผลิตภัณฑ์ที่ใช้เป็นเชื้อเพลิงในการประกอบอาหารหรืออุ่นอาหาร	2546 ลว.22 ก.ย.46	

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155	methiocarb	3	2032-65-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
156	methomyl	3	16752-77-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
157	methoprene	3	40596-69-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน กำจัดแมลง โดยการควบคุมการเจริญเติบโตของแมลง	2546 ลว.22 ก.ย.46	
158	methoxychlor	4	72-43-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
159	methyl bromide; bromomethane	4	74-83-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
160	mevinphos	4	7786-34-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
161	MGK repellent-11	4	126-15-8		2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
162	microbial larvicides	2	-	ในผลิตภัณฑ์ที่มีสารสำคัญที่ได้มาจากหรือเป็นผลผลิตของเชื้อจุลินทรีย์ที่ใช้เพื่อประโยชน์แก่การระงับและป้องกันอันตรายแก่บุคคล โดยมุ่งหมายในการกำจัดตัวอ่อนของยุงหรือแมลง	2546 ลว.22 ก.ย.46	
163	mirex	4	2385-85-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
164	monocrotophos	4	6923-22-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
165	N,N-diethyl succinamide-n-propyl	2	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
166	N,N-dipropyl succinamic acid ethyl ester	3	10143-31-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
167	naled	4	300-76-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุดิบ	ชนิดของ วัตถุดิบ	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
168	naphthalene	2	91-20-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น หรือเพื่อประโยชน์ในการดับกลิ่น	2546 ลว.22 ก.ย.46	
169	naphthylamine	4	134-32-7		2546 ลว.22 ก.ย.46	
170	n-butyl mercaptan; 1-butanethiol	4	109-79-5	ในผลิตภัณฑ์ที่นำมาใช้เพื่อขัดขวางระบบการทำงานของร่างกายเป็นการชั่วคราวเพื่อป้องกันตัวหรือทำร้ายผู้อื่น	2546 ลว.22 ก.ย.46	
171	n-butyl-1,2,3,6-tetrahydronaphthalimide	3	2021-19-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
172	n-butyl-dl-malate	4	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
173	nonionic surfactants ยกเว้น nonylphenol ethoxylate	1	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขเพื่อประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้น ฝาผนัง เครื่องสุขภัณฑ์ และวัสดุต่างๆ หรือการแก้ไขการอุดตันของท่อ หรือทางระบายสิ่งปฏิกูล	ฉบับที่ 3 2548 ลว. 21พ.ย.48	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
174	nonylphenol ethoxylate	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุขเพื่อประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้น ฝาผนัง เครื่องสุขภัณฑ์ และวัสดุต่างๆ หรือการแก้ไขการอุดตันของท่อ หรือทางระบายสิ่งปฏิกูล	ฉบับที่ 3 2548 ลว. 21พ.ย.48	
175	norbormide	3	991-42-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	
176	n-propyl cinnamate	3	7778-83-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
177	n-sec-butyl phthalimide	2	10108-61-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุมไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
178	octabromobiphenyl	4	27858-07-7		2546 ลว.22 ก.ย.46	
179	o -dichlorobenzene	4	95-50-1		2546 ลว.22 ก.ย.46	
180	omethoate	4	1113-02-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
181	oxydemeton-methyl	4	301-12-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
182	<i>p</i> -(n-propoxy)benzaldehyde	3	5736-85-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
183	paraquat dichloride	4	1910-42-5		2546 ลว.22 ก.ย.46	
184	parathion	4	56-38-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
185	parathion-methyl	4	298-00-0		2546 ลว.22 ก.ย.46	
186	paris green	4	12002-03-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
187	PAVA	4	2444-46-4	ในผลิตภัณฑ์ที่นำมาใช้เพื่อขัดขวางระบบการทำงานของร่างกายเป็นการชั่วคราวเพื่อการป้องกันตัวหรือทำร้ายผู้อื่น	2546 ลว.22 ก.ย.46	
188	<i>p</i> -dichlorobenzene	3	106-46-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น หรือเพื่อประโยชน์ในการดับกลิ่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
189	pentachlorophenate sodium; pentachlorophenoxide sodium	4	131-52-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
190	pentachlorophenol and its salts	4	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
191	pentamethylene dipropionate	2	10025-09-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
192	phenols and phenolic compounds	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนทางสาธารณสุขเพื่อประโยชน์แก่การฆ่าเชื้อโรคทำความสะอาดพื้น ฝาผนัง เครื่องสุขภัณฑ์ และวัสดุต่างๆ หรือการแก้ไขการอุดตันของท่อ หรือทางระบายสิ่งปฏิกูล	2546 ลว.22 ก.ย.46	
193	phenthoate	4	2597-03-07	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546
194	phenylmercuric oleate; PMO	4	104-60-9		2546 ลว.22 ก.ย.46	
195	phenylmercury acetate	4	62-38-4		2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
196	phosmet	4	732-11-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
197	phosphamidon	4	13171-21-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
198	phosphine	4	7803-51-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
199	phosphorus	4	7723-14-0		2546 ลว.22 ก.ย.46	
200	phoxim	3	14816-18-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
201	pindone	3	83-26-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
202	piperonyl butoxide; piperonyl ether butoxide	3	51-03-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
203	piperonyl cyclohexanone	3	12261-99-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
204	pirimiphos-methyl	3	29232-93-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
205	<i>p</i> -isopropylphenylethyl alcohol	3	10099-57-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
206	plifenate	2	21757-82-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
207	<i>p</i> -methoxybenzyl alcohol	4	105-13-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
208	polyalkylene glycol stearate	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
209	polybrominated biphenyls; PBBs decabromobiphenyl	4	13654-09-6		2546 ลว.22 ก.ย.46	
210	polychlorinated terphenyl; PCT	4	61788-33-8		2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
211	promecarb	3	2631-37-0	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
212	propetamphos	3	31218-83-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
213	propoxur	3	114-26-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
214	prothiofos	3	34643-46-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ. 2 ที่ประกาศเมื่อ พ.ศ. 2546
215	pyrethrins	3	8003-34-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
216	pyrethroids	3	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
217	pyrinuron; piriminil	4	53558-25-1		2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
218	quintozene; PCNB	4	82-68-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
219	red squill	3	507-60-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์ทะเล	2546 ลว.22 ก.ย.46	
220	rotenone	3	83-79-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
221	ryania	3	15662-33-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
222	safrole	4	94-59-7		2546 ลว.22 ก.ย.46	
223	schradan; octamethylpyrophos-phoramide; OMPA	4	152-16-9		2546 ลว.22 ก.ย.46	
224	scilliroside	3	507-60-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์ทะเล	2546 ลว.22 ก.ย.46	
225	sec-butyl mercaptan; 2-butanethiol	4	513-53-1	ในผลิตภัณฑ์ที่นำมาใช้เพื่อขัดขวางระบบการทำงานของร่างกายเป็นการชั่วคราวเพื่อการป้องกันตัวหรือทำร้ายผู้อื่น	2546 ลว.22 ก.ย.46	
226	silvex	4	93-72-1		2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
227	skunk oil	4	-	ในผลิตภัณฑ์ที่นำมาใช้เพื่อขัดขวางระบบการทำงานของร่างกายเป็นการชั่วคราวเพื่อการป้องกันตัว หรือทำร้ายผู้อื่น	2546 ลว.22 ก.ย.46	
228	sodium fluoride	3	7681-49-4	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
229	sodium hypochlorite	1	7681-52-9	ในผลิตภัณฑ์ที่นำมาใช้เพื่อประโยชน์ในการฆ่าเชื้อโรค หรือกำจัดกลิ่นในส้วมหรือน้ำ	ฉบับที่ 3 2548 ลว.21พ.ย.48	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546 เฉพาะเงื่อนไขนี้แต่ยังคง เป็น วอ.3 หากใช้ตาม เงื่อนไขที่ระบุใน chlorine and chlorine releasing
230	solid carbon dioxide; dry ice	1	124-38-9		2546 ลว.22 ก.ย.46	
231	soluble cyanide salts	4	-	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือน หรือทางสาธารณสุข	ฉบับที่ 3 2548 ลว.21พ.ย.48	
232	strobane; polychloroterpenes	4	8001-50-1		2546 ลว.22 ก.ย.46	
233	strychnine sulfate	3	60-41-3	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
234	sulfluramid	3	4151-50-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
235	TDE; DDD; 1,1 - dichloro - 2,2 - bis(4-chlorophenyl) ethane	4	72-54-8		2546 ลว.22 ก.ย.46	
236	temephos	3	3383-96-8	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
237	tert-butyl mercaptan; 2-methyl-2-propanethiol	4	75-66-1	ในผลิตภัณฑ์ที่นำมาใช้เพื่อขัดขวางระบบการทำงานของร่างกายเป็นการชั่วคราวเพื่อการป้องกันตัวหรือทำร้ายผู้อื่น	2546 ลว.22 ก.ย.46	
238	tetrachloroethane; acetylene tetrachloride; 1,1,2,2-tetrachloroethane	4	79-34-5	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุข	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ.3 และ เงื่อนไขที่ประกาศเมื่อ พ.ศ. 2546
239	tetrachlorvinphos	3	22248-79-9	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
240	thallium sulfate	4	7446-18-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
241	thanite	3	115-31-1	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
242	toxaphene; camphechlor	4	8001-35-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	ฉบับที่ 2 2547 ลว. 30 ก.ย.47	
243	trichlorfon	3	52-68-6	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การระงับ ป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2546 ลว.22 ก.ย.46	
244	trichloroisocyanuric acid and its salts	1	-	ในผลิตภัณฑ์ที่นำมาใช้เพื่อประโยชน์ในการฆ่าเชื้อโรคหรือกำจัดกลิ่นในสระว่ายน้ำ	ฉบับที่ 3 2548 ลว.21พ.ย.48	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546 เฉพาะเงื่อนไขนี้แต่ยังคงเป็น วอ.3 หากใช้ตามเงื่อนไขที่ระบุใน chlorine and chlorine releasing
245	tris(2,3-dibromopropyl)phosphate	4	126-72-7		2546 ลว.22 ก.ย.46	
246	vinyl chloride monomer; monochloroethene	4	75-01-4	ที่ใช้เป็นสารขับเคลื่อนในผลิตภัณฑ์สำหรับฉีดหรือพ่น	2546 ลว.22 ก.ย.46	
247	warfarin	3	81-81-2	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2546 ลว.22 ก.ย.46	

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
248	zinc phosphide	4	1314-84-7	ในผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุขที่นำมาใช้เพื่อประโยชน์แก่การกำจัดสัตว์แทะ	ฉบับที่ 2 2547 ลง. 30 ก.ย.47	ปรับเปลี่ยนจาก วอ.3 ที่ประกาศเมื่อ พ.ศ. 2546
249	ผลิตภัณฑ์ที่ใช้ในบ้านเรือนทางสาธารณสุขเพื่อประโยชน์แก่การกำจัดสัตว์แทะ	2	-		2546 ลง.22 ก.ย.46	บัญชี ข.
250	ผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุข เพื่อประโยชน์แก่การฆ่าเชื้อโรค ทำความสะอาดพื้นผิวนั่งเครื่องสุขภัณฑ์ และวัสดุอื่นๆหรือการแก้ไขการอุดตันของท่อหรือทางระบายสิ่งปฏิกูล	2	-		2546 ลง.22 ก.ย.46	บัญชี ข.
251	ผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุข เพื่อประโยชน์แก่การระงับป้องกัน ควบคุม ไล่ กำจัดแมลงและสัตว์อื่น	2	-		2546 ลง.22 ก.ย.46	บัญชี ข.
252	ผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทางสาธารณสุข เพื่อประโยชน์ในการซักผ้าขาว การฆ่าเชื้อโรค หรือกำจัดกลิ่นในส้วมว่ายนํ้า	2	-		2546 ลง.22 ก.ย.46	บัญชี ข.

ลำดับที่	วัตถุอันตราย	ชนิดของ วัตถุอันตราย	CAS NO.	เงื่อนไข	ประกาศ ฉบับที่ พ.ศ.	หมายเหตุ
253	ผลิตภัณฑ์ที่ใช้ในบ้านเรือนหรือทาง สาธารณะสุข เพื่อประโยชน์ในการลบหรือ แก้กลิ่นคาว หรือเพื่อละลายสารเคมีที่ใช้ลบ หรือแก้กลิ่นคาว หรือซักแห้งผ้าหรือสิ่งทออื่นๆ	2	-		2546 ลง.22 ก.ย.46	บัญชี ข.
254	ผลิตภัณฑ์ที่มีสารสำคัญที่ใช้เพื่อขัดขวางระบบ การทำงานของร่างกายเป็นการชั่วคราวเพื่อการ ป้องกันตัวหรือทำร้ายผู้อื่น	4	-		2546 ลง.22 ก.ย.46	บัญชี ข.

附件五

印尼除害劑註冊條款與程序



PERATURAN MENTERI PERTANIAN
NOMOR : 24/Permentan/SR.140/4/2011
TENTANG
SYARAT DAN TATACARA PENDAFTARAN PESTISIDA

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI PERTANIAN,

- Menimbang : a. bahwa dengan Peraturan Menteri Pertanian Nomor 45/Permentan/SR.140/10/2009 telah ditetapkan Syarat dan Tatacara Pendaftaran Pestisida;
- b. bahwa sehubungan dengan adanya perubahan organisasi di lingkungan Kementerian Pertanian, dan untuk meningkatkan pelayanan serta kepastian dalam pemberian pendaftaran dan izin pestisida, Peraturan Menteri Pertanian Nomor 45/Permentan/SR.140/10/2007 perlu ditinjau kembali;
- Mengingat : 1. Undang-Undang Nomor 12 Tahun 1992 tentang Sistem Budidaya Tanaman (Lembaran Negara Tahun 1992 Nomor 46, Tambahan Lembaran Negara Nomor 3478);
2. Undang-Undang Nomor 8 Tahun 1999 tentang Perlindungan Konsumen (Lembaran Negara Tahun 1999 Nomor 42, Tambahan Lembaran Negara Nomor 3821);
3. Undang-Undang Nomor 36 Tahun 2009 tentang Kesehatan (Lembaran Negara Tahun 2009 Nomor 140, Tambahan Lembaran Negara Nomor 5059);
4. Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup (Lembaran Negara Tahun 2009 Nomor 144, Tambahan Lembaran Negara Nomor 5063);
5. Peraturan Pemerintah Nomor 7 Tahun 1973 tentang Pengawasan Atas Peredaran, Penyimpanan, dan Penggunaan Pestisida (Lembaran Negara Tahun 1973 Nomor 12);
6. Peraturan Pemerintah Nomor 6 Tahun 1995 tentang Perlindungan Tanaman (Lembaran Negara Tahun 1995 Nomor 12, Tambahan Lembaran Negara Nomor 3586);
7. Peraturan Pemerintah Nomor 18 Tahun 1999 tentang Pengelolaan Limbah Bahan Berbahaya dan Beracun (Lembaran Negara Tahun 1999 Nomor 30, Tambahan Lembaran Negara Nomor 3815);
8. Peraturan Pemerintah Nomor 74 Tahun 2001 tentang Pengelolaan Bahan Berbahaya dan Beracun (Lembaran Negara Tahun 2001 Nomor 138, Tambahan Lembaran Negara Nomor 4153);
9. Peraturan Pemerintah Nomor 49 Tahun 2002 tentang Tarif Atas Jenis Penerimaan Negara Bukan Pajak Yang Berlaku Pada Departemen Pertanian (Lembaran Negara Tahun 2002 Nomor 92, Tambahan Lembaran Negara Nomor 4224) juncto Peraturan Pemerintah Nomor 7 Tahun 2004 (Lembaran Negara Tahun 2004 Nomor 14, Tambahan Lembaran Negara Nomor 4362);

10. Keputusan Presiden 84/M Tahun 2009 tentang Pembentukan Kabinet Indonesia Bersatu II;
11. Peraturan Presiden Nomor 47 Tahun 2009 tentang Pembentukan dan Organisasi Kementerian Negara;
12. Peraturan Presiden Nomor 24 Tahun 2010 tentang Kedudukan, Tugas, Fungsi Kementerian Negara Serta Susunan Organisasi, Tugas, Dan Fungsi Eselon I Kementerian Negara;
13. Peraturan Menteri Kesehatan Nomor 472/Menkes/PER/ XI/1992 tentang Bahan Berbahaya;
14. Keputusan Bersama Menteri Pertanian dan Menteri Kesehatan Nomor 881/Menkes/SKB/VIII/1996,
771/ Kpts/TP.270/8/1996
tentang Batas Maksimum Residu Pestisida Pada Hasil Pertanian;
15. Peraturan Menteri Kesehatan Nomor 1350/Menkes/SK/XII/2001 tentang Pestisida;
16. Peraturan Menteri Kesehatan Nomor 1191/Menkes/Per/VIII/2010 tentang Izin Edar Alat Kesehatan dan Perbekalan Kesehatan Rumah Tangga;
17. Peraturan Menteri Pertanian Nomor 42/Permentan/SR.140/5/2007 tentang Pengawasan Pestisida;
18. Peraturan Menteri Perdagangan Nomor 51/M-DAG/PER/12/2007 tentang Ketentuan Impor Metil Bromida Untuk Keperluan Karantina Dan Pra Pengapalan;
19. Peraturan Menteri Pertanian Nomor 61/Permentan/OT.140/710/2010 tentang Organisasi dan Tata Kerja Kementerian Pertanian;
20. Keputusan Menteri Pertanian Nomor 847/Kpts/OT.160/2/2011 tentang Komisi Pestisida.

Memperhatikan : 1. Instruksi Presiden Nomor 3 Tahun 1986 tentang Peningkatan Pengendalian Hama Wereng Coklat Pada Tanaman Padi;
2. Surat Ketua Komisi Pestisida Nomor 246/Kompes/2011 tanggal 28 Maret 2011;

MEMUTUSKAN:

Menetapkan : PERATURAN MENTERI PERTANIAN TENTANG SYARAT DAN TATACARA PENDAFTARAN PESTISIDA.

BAB I KETENTUAN UMUM

Pasal 1

Dalam Peraturan ini yang dimaksud dengan:

1. Pestisida adalah semua zat kimia dan bahan lain serta jasad renik dan virus yang dipergunakan untuk:

- a. memberantas atau mencegah hama-hama dan penyakit yang merusak tanaman, bagian-bagian tanaman atau hasil-hasil pertanian;
 - b. memberantas rerumputan;
 - c. mematikan daun dan mencegah pertumbuhan yang tidak diinginkan;
 - d. mengatur atau merangsang pertumbuhan tanaman atau bagian-bagian tanaman tidak termasuk pupuk;
 - e. memberantas atau mencegah hama-hama luar pada hewan-hewan piaraan dan ternak;
 - f. memberantas atau mencegah hama-hama air;
 - g. memberantas atau mencegah binatang-binatang dan jasad-jasad renik dalam rumah tangga, bangunan dan dalam alat-alat pengangkutan; dan/atau
 - h. memberantas atau mencegah binatang-binatang yang dapat menyebabkan penyakit pada manusia atau binatang yang perlu dilindungi dengan penggunaan pada tanaman, tanah atau air.
2. Pendaftaran pestisida adalah proses untuk mendapatkan nomor pendaftaran dan izin pestisida.
 3. Pestisida untuk penggunaan umum adalah pestisida yang dalam penggunaannya tidak memerlukan persyaratan dan alat-alat pengamanan khusus di luar yang tertera pada label.
 4. Pestisida terbatas adalah pestisida yang dalam penggunaannya memerlukan persyaratan dan alat-alat pengamanan khusus di luar yang tertera pada label.
 5. Pestisida dilarang adalah jenis pestisida yang dilarang untuk semua bidang penggunaan, untuk bidang pestisida rumah tangga, dan untuk bidang perikanan.
 6. Bahan aktif adalah bahan kimia sintetik atau bahan alami yang terkandung dalam bahan teknis atau formulasi pestisida yang memiliki daya racun atau pengaruh biologis lain terhadap organisme sasaran.
 7. Bahan aktif standar adalah bahan aktif murni yang digunakan sebagai pembanding dalam proses analisis kadar bahan aktif pestisida.
 8. Bahan teknis adalah bahan baku pembuatan formulasi yang dihasilkan dari suatu pembuatan bahan aktif, yang mengandung bahan aktif dan bahan pengotor ikutan (*impurities*) atau dapat juga mengandung bahan lainnya yang diperlukan.
 9. Bahan teknis asal adalah bahan yang dihasilkan langsung dari proses sintesis, ekstraksi atau proses lainnya untuk menghasilkan bahan aktif.
 10. Bahan teknis olahan adalah bahan yang dihasilkan dari proses pengolahan bahan teknis asal dengan tujuan tertentu seperti keamanan, stabilitas atau keperluan tertentu dalam proses pembuatan formulasi, pewadahan, pengangkutan dan penyimpanan.
 11. Formulasi adalah campuran bahan aktif dengan bahan tambahan dengan kadar dan bentuk tertentu yang mempunyai daya kerja sebagai pestisida sesuai dengan tujuan yang direncanakan.
 12. Bahan tambahan pestisida adalah bahan yang ditambahkan dalam bahan teknis atau formulasi pestisida selain bahan aktif pestisida antara lain: pelarut, pembau, pengemulsi, pewarna, pembawa, perata, perekat, penyebar, dan pemantap.

13. Pemilik formulasi adalah perorangan atau badan hukum yang memiliki suatu resep formulasi pestisida.
14. Resep formulasi adalah suatu keterangan yang menyatakan jenis dan banyaknya bahan aktif dan bahan tambahan yang terdapat dalam suatu formulasi pestisida dan/atau cara memformulasi suatu pestisida dengan menggunakan bahan teknis atau bahan aktif dan bahan penyusun lainnya.
15. Peredaran adalah impor-ekspor dan atau jual beli di dalam negeri termasuk pengangkutan pestisida.
16. Penyimpanan adalah memiliki pestisida dalam persediaan di halaman atau dalam ruang yang digunakan oleh importir, pedagang atau di usaha-usaha pertanian.
17. Penggunaan adalah menggunakan pestisida dengan atau tanpa alat untuk maksud seperti tersebut dalam angka 1.
18. Wadah adalah tempat yang terkena langsung pestisida untuk menyimpan selama dalam penanganan.
19. Label adalah tulisan dan dapat disertai dengan gambar atau simbol, yang memberikan keterangan tentang pestisida, dan melekat pada wadah atau pembungkus pestisida.
20. Pemusnahan adalah menghilangkan sifat dan fungsi pestisida.
21. Sertifikat penggunaan adalah surat keterangan yang menyatakan telah lulus pelatihan penggunaan pestisida terbatas.
22. Pengguna adalah orang atau badan hukum yang menggunakan pestisida dengan atau tanpa alat.
23. Penamaan formulasi adalah nama dagang suatu formulasi pestisida yang didaftarkan oleh pemohon.
24. Penamaan bahan teknis adalah nama suatu bahan teknis yang didaftarkan oleh pemohon.
25. Residu pestisida adalah sisa pestisida, termasuk hasil perubahannya yang terdapat pada atau dalam jaringan manusia, hewan, tumbuhan, air, udara atau tanah.
26. Toksisitas akut adalah pengaruh yang merugikan yang timbul segera setelah pemaparan dengan dosis tunggal suatu bahan kimia atau bahan lain, atau pemberian dosis ganda dalam waktu lebih kurang 24 jam.
27. Toksisitas subkronik adalah pengaruh yang merugikan pada hewan percobaan yang timbul sebagai akibat pemberian takaran harian berulang dari bahan kimia atau bahan lain, dengan periode pemaparan selama 3 bulan.
28. Toksisitas kronik adalah pengaruh yang merugikan pada hewan percobaan yang timbul sebagai akibat pemberian takaran harian berulang dari bahan kimia atau bahan lain, dengan periode pemaparan selama 2 tahun.
29. *Lethal dose-50* selanjutnya disingkat LD₅₀ adalah dosis tunggal bahan kimia atau bahan lain yang diturunkan secara statistik yang dapat menyebabkan kematian 50% dari populasi organisme dalam serangkaian kondisi percobaan yang telah ditentukan.

30. *Lethal concentration-50* yang selanjutnya disingkat LC_{50} adalah konsentrasi yang diturunkan secara statistik yang dapat menyebabkan kematian 50% dari populasi organisme dalam serangkaian kondisi percobaan yang telah ditentukan.
31. *Acceptable Daily Intake* yang selanjutnya disingkat ADI adalah angka penduga asupan harian bahan kimia yang dapat diterima dalam makanan sepanjang hidup manusia tanpa menimbulkan resiko kesehatan yang bermakna.
32. Batas Maksimum Residu yang selanjutnya disingkat BMR adalah merupakan batas dugaan maksimum residu pestisida yang diperbolehkan yang terdapat dalam berbagai hasil pertanian.
33. *Lethal time-50*/waktu paruh hayati yang selanjutnya disingkat LT_{50} adalah waktu yang diperlukan untuk mematikan 50% hewan percobaan dalam kondisi tertentu.
34. Unit toksisitas adalah angka faktor hasil bagi (ratio) konsentrasi nominal pestisida dalam air sawah dengan ketinggian 10 cm dengan nilai LC_{50} 96 jam.
35. *Decomposition time-50* yang selanjutnya disingkat DT_{50} adalah waktu yang diperlukan untuk terjadinya 50% dekomposisi berupa disipasi dan degradasi suatu bahan kimia di suatu media.
36. Efikasi adalah efektivitas pestisida terhadap organisme sasaran yang didaftarkan berdasarkan pada hasil percobaan lapangan atau laboratorium menurut metode yang berlaku.
37. Resurgensi adalah peningkatan populasi organisme sasaran setelah diperlakukan dengan pestisida.
38. Resistensi adalah penurunan tingkat kepekaan populasi organisme sasaran terhadap pestisida yang dapat menyebabkan pestisida yang semula efektif untuk mengendalikan organisme sasaran tersebut menjadi tidak efektif lagi.
39. Iritasi adalah gejala inflamasi yang terjadi pada kulit atau membran mukosa segera setelah perlakuan berkepanjangan atau berulang dengan menggunakan bahan kimia atau bahan lain.
40. Karsinogenik adalah sifat suatu bahan yang dapat mendorong atau menyebabkan kanker.
41. Teratogenik adalah sifat bahan kimia yang dapat menyebabkan/menghasilkan bayi cacat/kecacatan tubuh pada kelahiran.
42. Mutagenik adalah sifat bahan kimia yang menyebabkan terjadinya mutasi gen.
43. Kepala Pusat adalah Kepala Pusat Perlindungan Varietas Tanaman dan Perizinan Pertanian.
44. Direktur Jenderal adalah Direktur Jenderal Prasarana dan Sarana Pertanian.

Pasal 2

- (1) Peraturan ini dimaksudkan sebagai dasar hukum dalam penyelenggaraan pendaftaran termasuk pengujian dan perizinan serta pengawasan pestisida.

- (2) Peraturan ini bertujuan untuk:
- a. melindungi masyarakat dan lingkungan hidup dari pengaruh yang membahayakan sebagai akibat penyimpanan, peredaran, dan penggunaan pestisida;
 - b. meningkatkan efisiensi dan efektivitas penggunaan pestisida;
 - c. mendukung penerapan sistem Pengendalian Hama Terpadu (PHT); dan/atau
 - d. memberikan kepastian usaha dalam melakukan kegiatan produksi, pengadaan, penyimpanan, dan peredaran pestisida.

Pasal 3

Ruang lingkup pengaturan peraturan ini meliputi bidang penggunaan, klasifikasi, jenis perizinan, persyaratan pendaftaran, tata cara pendaftaran, wadah dan label pestisida, kewajiban petugas dan pemilik nomor pendaftaran, sanksi administrasi, ketentuan pestisida berbahan aktif metil bromida, ketentuan peralihan, dan ketentuan penutup.

BAB II

BIDANG PENGGUNAAN

Pasal 4

- (1) Bidang penggunaan pestisida meliputi:
- a. pengelolaan tanaman;
 - b. peternakan;
 - c. perikanan;
 - d. kehutanan;
 - e. penyimpanan hasil pertanian;
 - f. pemukiman dan rumah tangga;
 - g. karantina dan pra-pengapalan.
- (2) Bidang penggunaan pengelolaan tanaman adalah pestisida yang digunakan untuk mengendalikan organisme sasaran atau meningkatkan pertumbuhan pada tanaman (tanaman pangan, tanaman perkebunan, tanaman hortikultura, hutan tanaman industri).
- (3) Bidang penggunaan peternakan adalah pestisida yang digunakan untuk mengendalikan hama pada ternak/binatang yang perlu dilindungi dan atau kandangnya.
- (4) Bidang penggunaan perikanan adalah pestisida yang digunakan untuk mengendalikan organisme sasaran/mencegah hama-hama air pada budidaya perikanan (antara lain tambak ikan, tambak udang).
- (5) Bidang penggunaan kehutanan adalah pestisida yang digunakan untuk mengendalikan organisme sasaran pada hasil hutan atau pengawetan hasil hutan (kayu gergajian, kayu gelondongan, rotan, pondasi bangunan).
- (6) Bidang penggunaan penyimpanan hasil pertanian adalah pestisida yang digunakan untuk mengendalikan organisme sasaran pada gudang penyimpanan hasil pertanian.
- (7) Bidang penggunaan pemukiman dan rumah tangga adalah pestisida yang digunakan untuk mengendalikan organisme sasaran (binatang-binatang dan

jasad-jasad renik) pada rumah tangga, bangunan dan mencegah binatang-binatang (vektor) yang dapat menyebabkan penyakit pada manusia.

- (8) Bidang penggunaan karantina dan pra-pengapalan adalah pestisida yang digunakan untuk mengendalikan organisme sasaran dengan cara fumigasi pada karantina sebelum atau sesudah pengapalan.

BAB III KLASIFIKASI

Pasal 5

- (1) Berdasarkan bahayanya, pestisida dapat diklasifikasikan ke dalam:
- pestisida yang dilarang
 - pestisida yang dapat didaftarkan
- (2) Pestisida yang dilarang sebagaimana dimaksud pada ayat (1) huruf a, dengan kriteria sebagai berikut:
- formulasi pestisida termasuk kelas Ia, artinya sangat berbahaya sekali dan kelas Ib artinya berbahaya sekali menurut klasifikasi WHO sebagaimana tercantum dalam lampiran XII.
 - bahan aktif dan/atau bahan tambahan yang mempunyai efek karsinogenik, teratogenik atau mutagenik, (kategori I dan IIa berdasarkan klasifikasi *International Agency for Research on Cancer*), dan berdasarkan FAO, WHO, US-EPA dan ketentuan lainnya.
- (3) Pestisida yang dapat didaftarkan sebagaimana dimaksud pada ayat (1) huruf b pestisida yang tidak termasuk dalam kategori pestisida yang dilarang sebagaimana dimaksud pada ayat (2).

Pasal 6

- (1) Berdasarkan lingkup penggunaan, pestisida dapat diklasifikasikan ke dalam:
- pestisida terbatas; dan
 - pestisida untuk penggunaan umum.
- (2) Kriteria pestisida terbatas sebagaimana dimaksud pada ayat (1) huruf a adalah sebagai berikut:
- formulasi pestisida korosif pada mata (menyebabkan kerusakan tak terkembalikan pada jaringan okular), mengakibatkan pengerutan kornea atau iritasi sampai 7 (tujuh) hari atau lebih;
 - formulasi pestisida korosif terhadap kulit (menyebabkan kerusakan jaringan dalam dermis dan atau luka bekas) atau mengakibatkan iritasi berat sampai 72 (tujuh puluh dua) jam atau lebih;
 - bila digunakan seperti tertera pada label, atau menurut praktek yang biasa dilakukan, pestisida tersebut masih menyebabkan keracunan yang nyata secara subkronik, kronik atau tertunda bagi manusia sebagai akibat pemaparan secara tunggal dan majemuk terhadap pestisida tersebut atau residunya;
 - mempunyai LC_{50} inhalasi bahan aktif lebih kecil dari 0,05 mg/l selama 4 jam periode pemaparan; atau
 - termasuk dalam golongan bahan perusak lapisan ozon.

- (3) Pestisida untuk penggunaan umum sebagaimana dimaksud pada ayat (1) huruf b pestisida yang tidak masuk dalam kategori pestisida terbatas sebagaimana dimaksud pada ayat (2).

Pasal 7

- (1) Bahan aktif pestisida yang dilarang untuk semua bidang penggunaan seperti tercantum pada Lampiran I butir 1 sebagai bagian tidak terpisahkan dengan Peraturan ini
- (2) Bahan aktif pestisida yang dilarang untuk bidang pestisida rumah tangga seperti tercantum pada Lampiran I butir 2 sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (3) Bahan aktif pestisida yang dilarang untuk bidang perikanan seperti tercantum pada Lampiran I butir 3 sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (4) Bahan aktif pestisida yang dilarang digunakan pada tanaman padi sesuai Inpres 3 Tahun 1986 seperti tercantum pada Lampiran I butir 4 sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (5) Bahan aktif pestisida terbatas seperti tercantum pada Lampiran II sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (6) Bahan tambahan pestisida yang dilarang untuk semua bidang penggunaan pestisida dan bidang penggunaan pestisida rumah tangga seperti tercantum pada Lampiran III sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (7) Bahan tambahan pestisida yang dibatasi penggunaannya untuk bidang pengelolaan tanaman seperti tercantum pada Lampiran IV sebagai bagian tidak terpisahkan dengan Peraturan ini.

Pasal 8

- (1) Perubahan klasifikasi penggunaan pestisida dari dilarang menjadi penggunaan umum, atau dari pestisida terbatas menjadi penggunaan umum, atau sebaliknya dapat dilakukan setelah ada saran dan pertimbangan dari Komisi Pestisida.
- (2) Perubahan sebagaimana dimaksud pada ayat (1) lebih lanjut akan dituangkan dalam Keputusan tersendiri.

Pasal 9

- (1) Setiap orang yang akan menggunakan pestisida terbatas sebagaimana dimaksud dalam Pasal 6 ayat (1) huruf a, wajib memiliki sertifikat penggunaan pestisida terbatas.
- (2) Sertifikat penggunaan pestisida terbatas sebagaimana dimaksud pada ayat (1) diberikan kepada orang yang telah lulus pelatihan penggunaan pestisida terbatas yang diterbitkan oleh Ketua Komisi Pengawasan Pestisida Provinsi.
- (3) Pemegang nomor pendaftaran wajib melaksanakan pelatihan pestisida terbatas sesuai dengan pedoman dan berkoordinasi dengan Komisi Pengawasan Pestisida Provinsi atau pejabat yang ditunjuk

- (4) Sertifikat penggunaan pestisida terbatas sebagaimana dimaksud pada ayat (1), berlaku di seluruh wilayah Indonesia untuk jangka waktu selama 5 tahun, dan dapat diperpanjang.
- (5) Ketentuan mengenai pedoman pelatihan sebagaimana dimaksud pada ayat (3) diatur lebih lanjut oleh Direktur Jenderal a.n. Menteri Pertanian.

Pasal 10

Badan Hukum dapat menggunakan pestisida terbatas apabila diaplikasikan oleh orang yang telah memiliki sertifikat penggunaan pestisida terbatas sebagaimana dimaksud dalam Pasal 9.

BAB IV JENIS PERIZINAN

Pasal 11

Jenis izin pestisida terdiri atas:

- a. izin percobaan;
- b. izin sementara; dan
- c. izin tetap.

Pasal 12

- (1) Izin percobaan sebagaimana dimaksud dalam Pasal 11 huruf a, diberikan oleh Direktur Jenderal a.n. Menteri Pertanian yang berlaku untuk jangka waktu 1 tahun, dan dapat diperpanjang 1 (satu) kali untuk jangka waktu 1 (satu) tahun.
- (2) Izin percobaan sebagaimana dimaksud pada ayat (1) diberikan kepada pemohon untuk dapat membuktikan kebenaran klaimnya mengenai mutu, efikasi, dan keamanan pestisida yang didaftarkan.
- (3) Pestisida yang telah memperoleh izin percobaan dilarang untuk diedarkan dan/atau digunakan secara komersial.

Pasal 13

- (1) Izin sementara sebagaimana dimaksud dalam Pasal 11 huruf b diberikan oleh Menteri atas saran dan/atau pertimbangan Komisi Pestisida.
- (2) Izin sementara sebagaimana dimaksud pada ayat (1) diberikan terhadap pestisida yang telah memenuhi sebagian persyaratan teknis dan/atau administrasi.
- (3) Izin sementara sebagaimana dimaksud pada ayat (1) diberikan kepada pemohon untuk melengkapi persyaratan teknis dan administrasi sebagaimana dimaksud pada ayat (2) dengan data dan informasi sesuai dengan yang ditetapkan.
- (4) Izin sementara sebagaimana dimaksud pada ayat (1) berlaku untuk jangka waktu 1 (satu) tahun, dan dapat diperpanjang 1 (satu) kali untuk jangka waktu 1 (satu) tahun.

- (5) Apabila pemohon dalam jangka waktu sebagaimana dimaksud pada ayat (4) belum melengkapi persyaratan teknis dan/atau administrasi sebagaimana dimaksud pada ayat (3), permohonan dianggap ditarik kembali.

Pasal 14

Pestisida yang telah memperoleh izin sementara sebagaimana dimaksud dalam Pasal 13 dapat diproduksi, diedarkan, dan digunakan dalam jumlah terbatas sesuai dengan jumlah komoditas, dosis atau konsentrasi dan aplikasi yang ditetapkan dengan Keputusan Menteri.

Pasal 15

- (1) Izin tetap sebagaimana dimaksud dalam Pasal 11 huruf c diberikan oleh Menteri atas saran dan/atau pertimbangan Komisi Pestisida.
- (2) Izin tetap sebagaimana dimaksud pada ayat (1) berlaku untuk jangka waktu 5 (lima) tahun dan dapat diperpanjang.
- (3) Pestisida yang telah memperoleh izin tetap sebagaimana dimaksud pada ayat (1) dapat diproduksi, diedarkan dan digunakan.

Pasal 16

- (1) Pestisida yang mendapat Izin Tetap sebagaimana dimaksud dalam Pasal 15 ayat (1) dapat diperluas penggunaannya pada sasaran lain yang belum terdaftar setelah mendapat izin perluasan penggunaan.
- (2) Izin perluasan penggunaan sebagaimana dimaksud pada ayat (1) diberikan oleh Menteri Pertanian atas saran dan/atau pertimbangan Komisi Pestisida.
- (3) Untuk mendapatkan izin perluasan penggunaan sebagaimana dimaksud pada ayat (1) pemohon mengajukan permohonan dengan melampirkan hasil pengujian yang ditetapkan.

Pasal 17

Apabila penggunaan pestisida sebagaimana dimaksud dalam Pasal 13, Pasal 14, Pasal 15, dan Pasal 16 terbukti menimbulkan dampak negatif terhadap kesehatan manusia dan atau kelestarian lingkungan, izin sementara, izin tetap atau izin perluasan penggunaan dapat ditinjau kembali atau dicabut.

BAB V PERSYARATAN PENDAFTARAN

Pasal 18

- (1) Permohonan pendaftaran pestisida dapat dilakukan oleh badan usaha atau badan hukum Indonesia dengan memenuhi persyaratan pendaftaran sebagai berikut:
 - a. Akta pendirian dan perubahannya, bagi badan usaha (Usaha Dagang, Firma, CV, NV), dan badan hukum (PT, Koperasi);
 - b. Surat Izin Usaha Perdagangan (SIUP)/Tanda Daftar Usaha Perdagangan (TDUP) pestisida;

- c. Nomor Pokok Wajib Pajak (NPWP);
 - d. Surat keterangan domisili/Kartu Tanda Penduduk (KTP);
 - e. Pernyataan yang berhak menandatangani surat dalam rangka pendaftaran dan perizinan;
 - f. Surat jaminan suplai bahan aktif dari pemasok bahan aktif.
- (2) Pendaftaran pestisida sebagaimana dimaksud pada ayat (1) dilakukan oleh pemilik formulasi yang bersangkutan atau kuasanya.

Pasal 19

Untuk Pemilik Formulasi yang berasal dari luar negeri, pendaftaran pestisida dilakukan oleh kuasanya/perwakilan yang berbadan hukum Indonesia dan berkedudukan di Indonesia.

Pasal 20

- (1) Pestisida yang dapat didaftarkan di Indonesia, pestisida yang tidak termasuk klasifikasi dilarang sebagaimana dimaksud dalam Pasal 5 ayat (1) huruf a, tidak mengandung bahan aktif pestisida yang dilarang sebagaimana dimaksud dalam Pasal 7 ayat (1), ayat (2), dan ayat (3) dan/atau tidak mengandung bahan tambahan yang dilarang sebagaimana dimaksud dalam Pasal 7 ayat (5).
- (2) Pestisida sebagaimana dimaksud pada ayat (1) harus memenuhi syarat kemurnian kadar bahan aktif yang memenuhi spesifikasi SNI, FAO, WHO atau badan internasional lain.

Pasal 21

Untuk permohonan pendaftaran selain memenuhi persyaratan sebagaimana dimaksud dalam Pasal 18, harus memenuhi persyaratan sebagai berikut:

- (1) Setiap formulasi yang dihasilkan oleh setiap pemilik, yang digunakan untuk setiap bidang penggunaan, harus didaftarkan atas nama satu pemohon;
- (2) Formulasi pestisida berbahan aktif majemuk untuk bidang penggunaan pengelolaan tanaman, kecuali ZPT, pestisida biologi, rodentisida dan feromon/atraktan tidak bersifat antagonis.

Pasal 22

- (1) Pestisida yang didaftarkan harus diberikan penamaan tersendiri, yang merupakan identitas dari setiap formulasi pestisida yang akan diedarkan.
- (2) Penamaan sebagaimana dimaksud pada ayat (1) tidak boleh sama atau hampir sama dengan formulasi yang telah didaftar atas nama perusahaan lain.
- (3) Penamaan sebagaimana dimaksud pada ayat (1) harus memenuhi persyaratan sebagai berikut:
- a. setiap formulasi hanya diberi satu nama yang terdiri dari 3 (tiga) unsur, yaitu nama dagang yang tidak berkaitan dengan nama umum dan/atau nama bahan aktif, angka yang menunjukkan kadar bahan aktif, dan kode huruf yang menunjukkan bentuk formulasi;

- b. setiap penamaan formulasi pestisida yang didaftarkan dilampiri bukti telah melakukan pendaftaran dari instansi yang berwenang sesuai dengan ketentuan peraturan perundang-undangan tentang Hak Kekayaan Intelektual (HKI);
 - c. penamaan formulasi sebagaimana dimaksud dalam huruf a dan b tidak bersifat agitatif seperti misalnya kata-kata “dahsyat”, “hebat”, “super” atau “ampuh”.
- (4) Penamaan bahan teknis harus memenuhi syarat-syarat sebagaimana dimaksud pada ayat (3) dan diikuti dengan angka dan kode yang berturut-turut menunjukkan kadar bahan aktif dan macam bahan teknis.

BAB VI TATACARA PENDAFTARAN

Pasal 23

- (1) Untuk mendapatkan izin pestisida sebagaimana dimaksud dalam Pasal 11, pemohon mengajukan surat permohonan kepada Menteri Pertanian melalui Kepala Pusat dengan dilampiri persyaratan administrasi sebagaimana dimaksud dalam Pasal 18, dengan menggunakan format seperti tercantum dalam Lampiran VII untuk pestisida kimia, atau lampiran VIII untuk pestisida biologi atau lampiran IX untuk pestisida rumah tangga dan/atau pengendalian vektor penyakit pada manusia sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (2) Kepala Pusat dalam jangka waktu paling lama 3 (tiga) hari kerja telah selesai memeriksa kelengkapan persyaratan administrasi sebagaimana dimaksud dalam Pasal 18 ayat (1) dan memberikan jawaban menerima atau menolak.

Pasal 24

- (1) Permohonan diterima sebagaimana dimaksud dalam Pasal 23 ayat (2) apabila telah memenuhi persyaratan administrasi sebagaimana dimaksud dalam Pasal 18 ayat (1) selanjutnya oleh Kepala Pusat disampaikan kepada Direktur Jenderal secara tertulis untuk dilakukan penilaian teknis dengan menggunakan formulir model-1 seperti tercantum dalam Lampiran XVII sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (2) Permohonan ditolak sebagaimana dimaksud dalam Pasal 23 ayat (2) apabila persyaratan administrasi sebagaimana dimaksud dalam Pasal 18 ayat (1) tidak lengkap atau tidak benar, Kepala Pusat memberitahukan kepada pemohon disertai alasan penolakan secara tertulis, dengan menggunakan formulir model-2 seperti tercantum dalam Lampiran XVIII sebagai bagian tidak terpisahkan dengan Peraturan ini.

Pasal 25

- (1) Permohonan yang diterima sebagaimana dimaksud dalam pasal 24 ayat (1) dan telah dilakukan penilaian teknis dapat diberikan izin percobaan oleh Direktur Jenderal atas nama Menteri Pertanian. Izin percobaan disampaikan kepada pemohon melalui Kepala Pusat.

- (2) Pemohon yang diberikan izin percobaan sebagaimana dimaksud pada ayat (1) harus menyerahkan sampel pestisida kepada Direktur Jenderal melalui Kepala Pusat untuk dilakukan uji mutu.
- (3) Uji mutu sebagaimana dimaksud pada ayat (2) dilakukan oleh Lembaga yang terakreditasi atau yang ditunjuk seperti tercantum pada Lampiran XIII sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (4) Hasil uji mutu sebagaimana dimaksud pada ayat (3) oleh laboratorium pengujian disampaikan kepada Direktur Jenderal melalui Kepala Pusat untuk dilakukan penilaian uji mutu sesuai dengan batas toleransi seperti tercantum pada Lampiran VI sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (5) Direktur Jenderal dalam waktu paling lama 3 (tiga) hari kerja telah selesai melakukan penilaian uji mutu sebagaimana dimaksud pada ayat (4).
- (6) Apabila hasil penilaian uji mutu dan sampel pestisida sebagaimana dimaksud pada ayat (5) tidak memenuhi persyaratan, Direktur Jenderal memberitahukan kepada pemohon melalui Kepala Pusat secara tertulis untuk dapat mengajukan permohonan uji mutu ulang dengan formulir model- 3 seperti tercantum dalam Lampiran XIX sebagai bagian tidak terpisahkan dengan Peraturan ini.

Pasal 26

- (1) Apabila hasil penilaian sebagaimana dimaksud dalam Pasal 25 ayat (4) memenuhi persyaratan, selanjutnya sampel pestisida disegel oleh Direktur Jenderal.
- (2) Pemohon menyerahkan sampel pestisida yang telah disegel sebagaimana dimaksud pada ayat (1) ke lembaga pengujian toksisitas dan efikasi yang telah terakreditasi atau ditunjuk seperti tercantum pada Lampiran XIV dan Lampiran XV sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (3) Lembaga pengujian dalam melakukan pengujian efikasi dan toksisitas sebagaimana dimaksud pada ayat (2) wajib mengikuti metode standar yang ditetapkan oleh Direktur Jenderal atas nama Menteri Pertanian.
- (4) Direktur Jenderal setelah mendapat laporan hasil uji mutu, efikasi dan/atau toksisitas sebagaimana dimaksud pada ayat (3) bersama dengan Tim Teknis Evaluasi Pendaftaran Pestisida melakukan penilaian, sesuai dengan kriteria teknis seperti tercantum pada Lampiran V sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (5) Hasil penilaian sebagaimana dimaksud pada ayat (4) selanjutnya disampaikan pada rapat pleno Komisi Pestisida sebagai bahan evaluasi Komisi Pestisida.

Pasal 27

- (1) Hasil penilaian Komisi Pestisida sebagaimana dimaksud dalam Pasal 26 ayat (5) dapat berupa menunda, menolak atau menerima permohonan pendaftaran.
- (2) Apabila dari hasil penilaian permohonan pendaftaran ditolak sebagaimana dimaksud pada ayat (1), Direktur Jenderal melalui Kepala Pusat dalam jangka waktu paling lama 5 (lima) hari kerja telah memberitahukan kepada pemohon dengan disertai alasan penolakan secara tertulis dengan formulir model- 4 seperti tercantum dalam Lampiran XX sebagai bagian tidak terpisahkan dengan Peraturan ini.

Pasal 28

- (1) Permohonan ditunda sebagaimana dimaksud dalam Pasal 27 ayat (1), apabila ada data teknis yang harus dilengkapi.
- (2) Penundaan sebagaimana dimaksud pada ayat (1) oleh Direktur Jenderal diberitahukan kepada pemohon secara tertulis melalui Kepala Pusat yang disertai alasan penundaan dengan formulir model-4 seperti tercantum dalam Lampiran XX sebagai bagian tidak terpisahkan dengan Peraturan ini.
- (3) Pemohon dalam jangka waktu paling lama 7 (tujuh) hari kerja sejak menerima pemberitahuan sebagaimana dimaksud pada ayat (2) harus melengkapi persyaratan.
- (4) Apabila dalam jangka waktu 7 (tujuh) hari kerja setelah pemberitahuan sebagaimana dimaksud pada ayat (3), pemohon belum dapat melengkapi persyaratan, permohonan mengikuti penilaian oleh Komisi Pestisida pada periode berikutnya.

Pasal 29

- (1) Apabila penilaian Komisi Pestisida sebagaimana dimaksud dalam Pasal 27 ayat (1) permohonan pendaftaran diterima, selanjutnya oleh Komisi Pestisida diusulkan kepada Menteri Pertanian untuk dimohonkan nomor pendaftaran dan izin pestisida.
- (2) Menteri Pertanian dalam jangka waktu paling lama 90 (sembilan puluh) hari kerja sejak menerima usulan Komisi Pestisida sebagaimana dimaksud pada ayat (1) harus sudah memberikan jawaban menerima atau menolak.
- (3) Apabila usulan Komisi Pestisida dapat diterima sebagaimana dimaksud pada ayat (2) oleh Menteri Pertanian diberikan nomor pendaftaran dan izin pestisida.
- (4) Nomor pendaftaran dan izin pestisida sebagaimana dimaksud pada ayat (3) diberikan dalam bentuk Keputusan Menteri Pertanian.

Pasal 30

- (1) Pemberian nomor pendaftaran dan izin pestisida sebagaimana dimaksud dalam Pasal 29 ayat (1) dapat berupa:
 - a. nomor pendaftaran dan izin sementara; atau
 - b. nomor pendaftaran dan izin tetap.
- (2) Tatacara penomoran pestisida meliputi Bidang Penggunaan, Jenis pestisida, Jenis izin, Tahun Lahir, Nomor Digit pada tahun yang bersangkutan sebagaimana tercantum pada Lampiran XXI sebagai bagian tidak terpisahkan dengan Peraturan ini.

Pasal 31

- (1) Apabila dalam jangka waktu paling lambat 90 (sembilan puluh) hari kerja sejak menerima usulan Komisi Pestisida sebagaimana dimaksud dalam Pasal 29 ayat (2) Menteri Pertanian belum memberi jawaban menerima atau menolak, permohonan dianggap diterima.

- (2) Permohonan yang dianggap diterima sebagaimana dimaksud pada ayat (1) diberikan nomor pendaftaran dan izin pestisida dalam bentuk Keputusan Menteri Pertanian yang ditandatangani oleh Direktur Jenderal atas nama Menteri Pertanian.

Pasal 32

- (1) Permohonan yang telah diterbitkan Keputusan Menteri Pertanian sebagaimana dimaksud dalam Pasal 29 ayat (4), atau dalam Pasal 31 ayat (2) disampaikan kepada pemohon melalui Kepala Pusat.
- (2) Permohonan yang ditolak sebagaimana dimaksud dalam Pasal 29 ayat (2) diberitahukan kepada pemohon melalui Kepala Pusat.

Pasal 33

- (1) Pemohon yang telah mendapat nomor pendaftaran dan izin sebagaimana dimaksud dalam Pasal 29 ayat (4) dan Pasal 31 ayat (2) dalam jangka waktu paling lama 1 (satu) tahun harus sudah memproduksi atau mengimpor.
- (2) Laporan produksi/impor sebagaimana dimaksud pada ayat (1) harus disertai dokumen produksi/impor.

Pasal 34

- (1) Tatacara pendaftaran pestisida sebagaimana dimaksud dalam Pasal 18 sampai dengan Pasal 29 secara mutatis mutandis berlaku untuk pendaftaran bahan teknis pestisida dan pestisida untuk ekspor kecuali pengujian efikasi, toksikologi lingkungan, resurgensi, dan residu tidak diperlukan.
- (2) Pendaftaran bahan teknis sebagaimana dimaksud pada ayat (1) menggunakan format sebagaimana tercantum pada Lampiran X sebagai bagian tidak terpisahkan dengan Peraturan ini.

Pasal 35

- (1) Nomor pendaftaran yang telah diberikan dalam izin sementara atau izin tetap, dapat beralih atau dialihkan, karena:
 - a. pemilik formulasi menunjuk pihak lain sebagai pemegang nomor pendaftaran;
 - b. pemilik formulasi mengalihkan kepemilikan formulasinya kepada pihak lain;
 - c. penunjukan pihak lain sebagai pemegang nomor pendaftaran akibat adanya penggabungan perusahaan;
 - d. penggantian nama pemilik formulasi atau pemegang nomor pendaftaran.
- (2) Pihak yang menerima pengalihan sebagai pemegang nomor pendaftaran yang baru sebagaimana dimaksud pada ayat (1) wajib menyelesaikan permasalahan diantara pemegang formulasi lama dengan pemegang formulasi yang baru dalam bentuk surat perjanjian, selanjutnya dilaporkan kepada Direktur Jenderal melalui Kepala Pusat untuk wajib dicatat dalam buku nomor pendaftaran serta mengusulkan penetapan mengenai pengalihan dimaksud.

Pasal 36

- (1) Perubahan yang menyangkut pestisida yang didaftarkan, meliputi perubahan:
 - a. nama formulasi dan atau nama bahan aktif;
 - b. wadah dan atau pembungkus;
 - c. bentuk formulasi/bahan teknis
 - d. asal bahan aktif;
 - e. bahan pelarut;
 - f. bahan pengemulsi;
 - g. bahan pembawa;
 - h. kadar bahan aktif (dalam batas toleransi kadar bahan aktif);
 - i. kadar bahan aktif dalam bahan teknis
 - j. penggunaan yang terdaftar dan diizinkan;
 - k. jumlah yang diizinkan diedarkan untuk izin sementara; dan/atau;
 - l. dosis dan cara aplikasi pestisida (sesuai dengan hasil uji efikasi)
- (2) Perubahan sebagaimana dimaksud pada ayat (1) huruf d, e, f, g dan h dapat disetujui apabila setelah dilakukan pengujian banding mutu, toksisitas, dan efikasi untuk salah satu organisme sasaran hasilnya memenuhi persyaratan teknis.
- (3) Perubahan sebagaimana dimaksud pada ayat (1) wajib dilaporkan oleh pemegang nomor pendaftaran kepada Direktur Jenderal melalui Kepala Pusat untuk dicatat dalam buku nomor pendaftaran dan diproses lebih lanjut penetapannya oleh Direktur Jenderal.

Pasal 37

- (1) Izin tetap pestisida dapat didaftarkan ulang dengan mengikuti ketentuan tatacara pendaftaran pestisida sebagaimana dimaksud dalam Pasal 19 sampai dengan Pasal 30 dengan dilengkapi:
 - hasil uji mutu ulang formulasi bagi pestisida pendaftaran ulang ganjil (pertama, ketigadst).
 - hasil uji mutu ulang bahan teknis pestisida untuk setiap melakukan pendaftaran ulang.
 - hasil uji mutu ulang dan efikasi ulang terhadap salah satu organisme sasaran bagi pestisida pendaftaran ulang genap (kedua, keempat.....dst.),
 - hasil uji mutu ulang dan efikasi ulang genap (kedua, keempat.....dst.) terhadap organisme pengganggu tumbuhan (OPT) utama untuk pestisida yang digunakan pada tanaman padi.
- (2) Organisme sasaran sebagaimana dimaksud pada ayat (1) yaitu salah satu organisme sasaran yang terdaftar sejak pertama kali pestisida diberikan izin.
- (3) Pendaftaran ulang izin tetap sebagaimana dimaksud pada ayat (1) dilakukan paling lambat 90 (sembilan puluh) hari kerja sebelum masa izin berakhir.

Pasal 38

Pemberian izin tetap pendaftaran ulang selain harus memenuhi ketentuan sebagaimana dimaksud dalam Pasal 37 juga memperhatikan hasil evaluasi pengawasan pestisida yang dilaksanakan oleh Instansi yang berwenang.

Pasal 39

- (1) Apabila permohonan pendaftaran ulang sebagaimana dimaksud dalam Pasal 38 diterima, paling lambat dalam waktu 90 (sembilan puluh) hari kerja telah diterbitkan Keputusan Menteri Pertanian tentang Pendaftaran dan Izin Pestisida.
- (2) Apabila dalam waktu 90 (sembilan puluh) hari kerja Keputusan Menteri Pertanian tentang Pendaftaran dan Izin Pestisida sebagaimana dimaksud pada ayat (1) belum diterbitkan, Direktur Jenderal atas nama Menteri Pertanian menerbitkan Keputusan Menteri Pertanian.
- (3) Apabila pendaftaran ulang sebagaimana dimaksud pada ayat (1) tidak dilakukan atau ditolak, nomor dan izin pendaftaran berakhir demi hukum.
- (4) Nomor dan izin pendaftaran yang berakhir, apabila pendaftaran ulang pestisida ditolak maka harus ditarik dari peredaran selambat-lambatnya 6 (enam) bulan.

BAB VII WADAH DAN LABEL PESTISIDA

Pasal 40

- (1) Pestisida yang telah terdaftar dengan izin sementara atau izin tetap harus ditempatkan dalam wadah.
- (2) Wadah pestisida harus tidak mudah pecah atau robek, atau dilindungi wadah lain supaya tidak rusak, tidak bereaksi dengan pestisidanya atau korosif, sehingga bahaya terhadap manusia dan lingkungan dapat dihindarkan.
- (3) Setiap wadah harus ditutup atau dilipat dengan baik sehingga tutup atau lipatan maupun wadah itu tidak dapat dibuka tanpa merusaknya kecuali wadah dibuat sedemikian rupa sehingga tanpa merusak tutupnya pestisida hanya dapat keluar dalam bentuk asap atau kabut.
- (4) Spesifikasi wadah harus diuraikan secara lengkap yang mencakup volume, nama bahan, bentuk, ukuran, ketebalan bahan, warna, bahan lapisan permukaan wadah bagian dalam dan bahan tutup wadah, seperti tercantum dalam Lampiran XI.
- (5) Pewadahan kembali suatu formulasi pestisida hanya dapat dilakukan oleh pemegang pendaftaran pestisida yang bersangkutan atau pihak lain yang ditunjuknya sesuai dengan ketentuan yang berlaku.

Pasal 41

- (1) Setiap wadah pestisida harus diberi label, yang ditempelkan dan tidak mudah lepas atau dicetak pada wadah.
- (2) Label pestisida diusulkan oleh pemegang pendaftaran, dan merupakan salah satu persyaratan dalam permohonan pendaftaran.
- (3) Semua keterangan pada label dan lampiran petunjuk penggunaan harus dicantumkan dalam bahasa Indonesia dengan kata-kata yang tidak bersifat agitatif seperti misalnya kata-kata “dahsyat”, “hebat”, “super”, “kuat” atau “ampuh”, serta dilarang mencantumkan gambar organisme sasaran yang tidak

terdaftar, dilarang membandingkan dengan pestisida lain yang telah terdaftar. Penggunaan bahasa asing diperbolehkan hanya apabila menterjemahkan hal-hal yang dinilai penting yang telah disebutkan pula dalam bahasa Indonesia.

- (4) Keterangan dan tanda peringatan pada label harus dicetak jelas, mudah dibaca atau dilihat, mudah dipahami dan tidak mudah terhapus.
- (5) Keterangan lengkap tentang isi label, kalimat peringatan dan petunjuk keamanan, keterangan tentang gejala keracunan, keterangan tentang petunjuk pertolongan, keterangan tentang petunjuk penyimpanan, keterangan tentang petunjuk penggunaan, pencantuman tanda gambar, label, pestisida terbatas, dan penyusunan label, seperti tercantum dalam Lampiran XII.

BAB VIII KEWAJIBAN PETUGAS DAN PEMILIK NOMOR PENDAFTARAN

Pasal 42

- (1) Petugas yang melayani pendaftaran dan petugas lembaga penguji mutu, efikasi dan toksisitas wajib menjaga kebenaran dan kerahasiaan data dan informasi mengenai pestisida yang menurut sifatnya perlu dirahasiakan.
- (2) Direktur Jenderal wajib menyelenggarakan pengelolaan buku nomor pendaftaran dan mencatat segala mutasi baik subyek maupun obyek pendaftaran pestisida.

Pasal 43

- (1) Pemegang nomor pendaftaran wajib mencantumkan seluruh keterangan yang dipersyaratkan pada label pestisida yang didaftarkan sebagaimana tercantum pada Lampiran XII Peraturan ini.
- (2) Pemohon/pemegang nomor pendaftaran wajib membayar biaya pendaftaran yang merupakan Penerimaan Negara Bukan Pajak (PNBP), dan harus disetor ke Kas Negara yang besarnya ditetapkan berdasarkan peraturan perundang-undangan yang berlaku.
- (3) Pemegang nomor pendaftaran menanggung semua biaya pengujian yang besarnya dan tatacaranya ditetapkan oleh lembaga penguji.

Pasal 44

- (1) Pemegang nomor pendaftaran wajib menyerahkan bahan aktif standar sebanyak 1 (satu) gram dan sertifikat analisisnya setiap 2 (dua) tahun sekali kepada Direktur Jenderal yang selanjutnya disimpan pada laboratorium sebagaimana dimaksud dalam Pasal 25 ayat (3).
- (2) Pemegang nomor pendaftaran wajib menyampaikan laporan tahunan mengenai produksi dan peredaran pestisida serta bahan aktifnya yang meliputi impor, ekspor dan jual beli di dalam negeri paling lambat 2 (dua) bulan setelah tahun kalender berakhir, dan laporan 6 (enam) bulanan mengenai produksi dan peredaran pestisida terbatas kepada Menteri Pertanian melalui Direktur Jenderal dengan menggunakan format seperti tercantum dalam Lampiran XVI Peraturan ini.

- (3) Pemegang nomor pendaftaran pestisida wajib melakukan pembinaan dan pengawasan terhadap segala sesuatu yang berkaitan dengan yang menjadi tanggung jawabnya serta mengambil langkah-langkah penanggulangannya apabila terjadi penyimpangan, kegiatan tersebut dilaksanakan sendiri maupun bersama aparat Pemerintah.

BAB IX SANKSI ADMINISTRASI

Pasal 45

Terhadap lembaga penguji dan/atau laboratorium penguji yang terbukti tidak menjamin kerahasiaan dan kebenaran hasil pengujian yang dilakukannya diberikan teguran tertulis oleh Direktur Jenderal dan dilaporkan kepada pejabat yang berwenang untuk dikenakan sanksi sesuai dengan ketentuan peraturan perundang-undangan yang berlaku.

Pasal 46

Petugas yang melayani pendaftaran yang terbukti tidak menjamin kerahasiaan data pestisida sebagaimana dimaksud dalam Pasal 42 ayat (1) dikenakan sanksi disiplin pegawai sesuai peraturan perundang-undangan yang berlaku.

Pasal 47

Pemohon yang terbukti mengedarkan pestisida yang sedang dalam proses pendaftaran, dikenakan sanksi pembatalan permohonan pendaftaran dan izin pestisida sampai dengan proses penyidikan oleh pejabat yang berwenang sampai memperoleh kekuatan hukum.

Pasal 48

- (1) Pemegang nomor pendaftaran yang terbukti tidak mencantumkan seluruh keterangan yang dipersyaratkan pada label sebagaimana dimaksud pada Pasal 42 ayat (5) dan atau tidak melaporkan adanya perubahan pemegang pendaftaran dikenakan sanksi pencabutan nomor pendaftaran dan izinnya.
- (2) Pemegang nomor pendaftaran yang terbukti tidak menjamin mutu pestisida yang diproduksi dan/atau diedarkan, dikenakan sanksi pencabutan nomor pendaftaran dan izinnya.
- (3) Pemegang nomor pendaftaran yang tidak memproduksi dan atau tidak mengimpor formulasi pestisida yang didaftarkannya sebagaimana dimaksud dalam Pasal 33 serta tidak membuat laporan sebagaimana dimaksud dalam Pasal 44 ayat (2) selama 2 (dua) tahun berturut-turut dikenakan sanksi pencabutan nomor dan izin pendaftaran.
- (4) Pemegang nomor pendaftaran yang tidak melaporkan perubahan asal bahan aktif sebagaimana dimaksud pada Pasal 36 ayat (1) huruf d dikenakan sanksi pencabutan nomor pendaftaran dan izin.
- (5) Pemegang nomor pendaftaran sebagaimana dimaksud pada ayat (1), ayat (2), ayat (3) dan ayat (4) wajib menarik pestisida dari peredaran selambat-lambatnya 3 (tiga) bulan sejak diterbitkan Keputusan Menteri Pertanian tentang Pencabutan Nomor Pendaftaran dan Izin.

BAB X
KETENTUAN PESTISIDA BERBAHAN AKTIF METIL BROMIDA

Pasal 49

- (1) Pestisida berbahan aktif metil bromida diberikan izin sementara berdasarkan peraturan perundangan yang berlaku, dengan jumlah yang diedarkan sesuai dengan ketentuan yang berlaku (kuota nasional) pada tahun yang bersangkutan.
- (3) Izin sementara sebagaimana dimaksud Pasal 11 huruf b untuk pestisida berbahan aktif metil bromida diberikan oleh Menteri atas saran dan/atau pertimbangan Komisi Pestisida.
- (3) Izin sementara pestisida berbahan aktif metil bromida sebagaimana dimaksud pada ayat (1) berlaku untuk jangka waktu 1 (satu) tahun, dan dapat didaftarkan ulang dengan mengikuti ketentuan yang berlaku.
- (4) Pendaftaran ulang izin sementara sebagaimana dimaksud pada ayat (1) dilakukan paling lambat 90 (sembilan puluh) hari kerja sebelum masa izin berakhir.

BAB XI
KETENTUAN PERALIHAN

Pasal 50

- (1) Pestisida yang telah mendapat nomor pendaftaran dan izin tetap atau izin sementara sebelum peraturan ini diterbitkan, dinyatakan masih tetap berlaku.
- (2) Permohonan nomor pendaftaran dan izin tetap atau izin sementara yang sedang atau sudah dilakukan pengujian sebelum peraturan ini diterbitkan berlaku ketentuan Peraturan Menteri Pertanian Nomor 45/Permentan/SR.140/10/2009.
- (3) Permohonan nomor pendaftaran dan izin tetap atau izin sementara yang belum dilakukan pengujian sebelum peraturan ini diterbitkan, diproses sesuai ketentuan dalam peraturan ini.

BAB XII
KETENTUAN PENUTUP

Pasal 51

Dengan diundangkan Peraturan ini, maka Peraturan Menteri Pertanian Nomor 45/Permentan/SR.140/10/2009 tentang Syarat dan Tatacara Pendaftaran Pestisida, dinyatakan dicabut dan tidak berlaku.

Pasal 52

Peraturan ini mulai berlaku pada tanggal diundangkan.

Agar setiap orang mengetahuinya, Peraturan Menteri Pertanian ini diundangkan dengan penempatannya dalam Berita Negara Republik Indonesia.

Ditetapkan di Jakarta
pada tanggal 8 April 2011
MENTERI PERTANIAN,

SUSWONO

Diundangkan di Jakarta
pada tanggal 20 April 2011
MENTERI HUKUM DAN HAK ASASI MANUSIA
REPUBLIK INDONESIA,

PATRIALIS AKBAR

BERITA NEGARA REPUBLIK INDONESIA TAHUN 2011 NOMOR 232

附件六

印尼家用殺蟲劑註冊申請單

FORMULIR PENDAFTARAN PESTISIDA RUMAH TANGGA DAN PESTISIDA UNTUK
PENGENDALIAN VEKTOR PENYAKIT PADA MANUSIA

Kepada Yth.
MENTERI PERTANIAN
u.p. PUSAT PERIZINAN DAN
INVESTASI
Jl. HARSONO R.M. No. 3
JAKARTA

PERMOHONAN PENDAFTARAN PESTISIDA RUMAH TANGGA DAN PESTISIDA
PENGENDALIAN VEKTOR PENYAKIT PADA MANUSIA

1. KEADAAN DAN SIFAT PESTISIDA

1. NAMA DAGANG FORMULASI :

2. JENIS PESTISIDA :

3. BENTUK FORMULASI

(Berikan tanda silang (x) pada keterangan yang sesuai)

- | | |
|--|--------------------------|
| (1) Aerosol (<i>Aerosol dispenser/AE</i>) | ☐ |
| (2) Larutan (<i>Anyother liquid/AL</i>) | ☐ |
| (3) Padatan lingkak (<i>Mousquito Coil/MC</i>) | ☐ |
| (4) Larutan yang dapat diuapkan (<i>Liquid Vaporizer/LV</i>) | ☐ |
| (5) Padatan keping (<i>Vaporizing mats/MV</i>) | ☐ |
| (6) Berupa Umpan Siap Pakai (Block bait/BB) | ☐ |
| (7) Pekatan yang dapat diemulsikan (Emulsifiable concentrate/EC) | ☐ |
| (8) Larutan dalam air (<i>Soluble Concentrate/SL</i>) | ☐ |
| (9) Butiran (Granule/GR) | ☐ |
| (10) Pekatan Suspensi (Suspension Concentrate/SC) | ☐ |
| (11) Foging (Hot Fogging concentrate/HN) | ☐ |
| (12) Lampion (Liquid vaporation/LV) | ☐ |
| (13) Lotion (Lotion/Lt) | ☐ |
| (14) Gel (emulsifiable gel/GL) | ☐ |
| (15) Tablet (tablet/TB) | ☐ |

(16) Ultra low volume (ULV) liquid/UL

☐

(17) Lain-lain*

☐

Penjelasan :

1. Daftar isian ini harus diisi rangkap 2 (dua)
2. Semua keterangan yang diminta dalam daftar isian harus diberikan selengkap-lengkapny.
3. Apabila tempat dalam daftar isian ini tidak cukup, maka keterangan yang diminta supaya diberikan pada lampiran yang ditandatangani oleh pemohon.
4. Keterangan tambahan lainnya diminta apabila dianggap perlu.

KEADAAN DAN SIFAT FISIK KIMIA FORMULASI

- (1) Warna :
- (2) Berat jenis : pada suhu °C atau - °F
- (3) Kekentalan : pada suhu °C atau - °F
- (4) Ketahanan simpan (waktu) : tahun - bulan
- (5) Ukuran partikel/dimensi :
- (6) Kadar air : %
- (7) pH :
- (8) Titik nyala : °C atau - °F
- (9) Titik bakar : °C atau - °F
- (10) Indeks bias :
- (11) Kerapatan tepung : kg/l
(*tap/bulk density*)
- (12) Struktur butiran :

(Berikan tanda silang (x) pada keterangan yang sesuai)

(a) Bahan aktif terdapat pada permukaan luar butiran (tidak terbungkus)

☐

(b) Bahan aktif terdapat di bagian dalam butiran (terbungkus)

☐

(13) Mudah meledak atau tidak :

(14) Korosifitas :
(Apabila korosif, sebutkan nama bahan yang dapat dirusak)

(15) Bau :

5. KOMPOSISI FORMULASI

Macam bahan penyusun	Kadar bahan Penyusun*	Nama umum>Nama kimia bahan penyusun
1. Bahan aktif, sebagai: 1.1 Bahan aktif murni (bukan bahan teknis) 1.2 Bahan teknis (campuran bahan aktif dengan bahan lainnya/ <i>impurities</i>). 2. Pelarut 3. Bahan pembawa 4. Bahan pengisi 5. Bahan pengemulsi 6. Bahan perata 7. Bahan pembasah 8. Bahan perekat 9. Bahan penyebar (<i>dispersing agent</i>) 10. Bahan pemantap (<i>Stabilizing agent</i>) 11. Bahan pewarna 12. Bahan pembau 13. Bahan lain-lain (sebutkan fungsinya)		

* Dinyatakan dalam gram/liter untuk formulasi cairan dan dalam persen bobot untuk formulasi padat, setengah padat, kental atau campuran cairan dan padat

6. NAMA DAN RUMUS KIMIA BAHAN AKTIF

(1) Nama kimia (sedapat-dapatnya menurut :
International Union for Pure and Applied Chemistry).

(2) Rumus empiris :

(3) Rumus bangun :

(4) Nama umum menurut
 (a) *International Standards Organisation (ISO)* :

(b) Badan yang berwenang di negara :
 asal (sebutkan nama badan, negara asal dan nama umum bahan aktif)

(c) Pembuat bahan aktif :

7. SIFAT FISIK BAHAN AKTIF

- (1) Titik cair : °C atau °F
 (2) Titik didih : °C atau °F
 (3) Titik nyala : °C atau °F
 (4) Tekanan uap : pada suhu °C atau °F
 (5) Berat jenis : pada suhu °C atau °F
 (6) Daya larut bahan aktif dalam
 (a) air : atau pada suhu °C atau °F
 (b) pelarut organik : atau ppm pada suhu °C atau °F
 (sebutkan nama pelarut)
 (7) Berat molekul :
 (8) Kemampuan Oksidasi :

(7) Ketahanan bahan aktif terhadap berbagai faktor

(Berikan tanda silang (x) pada kolom yang sesuai). Tingkat penguraian/ Degradasi	Sinar Matahari	Air	Oksigen	Suhu	Bahan wadah (sebutkan nama bahan tersebut)
1. Sama sekali tidak dipengaruhi					
2. Sedikit mengurai/ mengalami degradasi					
3. Agak mudah mengurai/ mengalami degradasi					
4. Mudah mengurai/ mengalami degradasi					

8. KOMPOSISI BAHAN TEKNIS

Macam bahan penyusun	Nama umum/nama kimia Bahan penyusun	Kadar bahan penyusun
1. Bahan aktif *		
2. Bahan campuran**		

* Dalam hal bahan aktif terdiri dari beberapa isomer, perlu disebutkan nama masing-masing isomer tersebut dalam kadarnya

** Tiap bahan campuran atau kelompok bahan campuran harus disebutkan nama umum atau nama kimianya.

10. METODA ANALISIS FORMULASI

(Tuliskan ringkasan metode untuk menentukan jenis dan kadar bahan aktif dan lampirkan uraian yang terperinci mengenai metoda tersebut dalam bahasa Indonesia atau bahasa Inggris).

II. PENGGUNAAN YANG DIDAFTARKAN

Organisme sasaran atau tujuan penggunaan	Dosis atau konsentrasi Formulasi yang dianjurkan	Waktu aplikasi	Cara aplikasi

III. EFIKASI

1. CARA KERJA TERHADAP ORGANISME SASARAN

2. PERCOBAAN EFIKASI*

Organisme sasaran atau tujuan penggunaan	Percobaan efikasi yang telah dilakukan		
	Lokasi dan banyaknya percobaan	Waktu	Pelaksana percobaan/ sumber data
* Lampirkan pula laporan percobaan yang dilaksanakan di Indonesia			

III. TOKSIKOLOGI

1. TOKSISITAS AKUT*

Cara pemberian	Jenis binatang Percobaan	Nilai LD50 (mg/kg berat badan) atau LD50 (sebutkan satuan konsentrasi dan jangka waktu)		
		Formulasi	Bahan teknis	Bahan aktif murni
Oral				
Dermal				
Inhalasi				

* Lampirkan pula laporan percobaan yang menyebutkan data toksisitas akut tersebut

2. IRITASI MATA DAN KULIT

3. SENSITISASI

4. TOKSISITAS JANGKA PENDEK

(Uraikan secara singkat hasil penelitian yang diadakan dan tingkat dosis yang tidak menimbulkan efek toksikologis (*no observable effect level*). Lampirkan laporan lengkap penelitian yang dimaksud).

5. TOKSISITAS JANGKA PANJANG

(Uraikan secara singkat hasil penelitian yang diadakan dan tingkat dosis yang tidak menimbulkan efek toksikologis (*no observable effect level*), termasuk efek karsinogenik, teratogenik, mutagenik dsb. Lampirkan laporan lengkap penelitian yang dimaksud).

6. DATA MEDIS

(1) Tanda-tanda klinis :
dan gejala keracunan

(2) Diagnosa keracunan :

(3) Pertolongan pertama :

- (4) Perawatan kedokteran :
(Uraikan petunjuk yang diperlukan dokter dan antidote untuk keracunan tersebut apabila ada).

10

IV. KETERANGAN LAIN TENTANG PESTISIDA

1. CARA PEMUSNAHAN

(Uraikan cara pemusnahan pestisida dan bekas wadahnya yang tidak terpakai yang aman bagi pekerja, pihak ketiga dan lingkungan).

2. WADAH DAN PEMBUNGKUSAN

(1) Wadah

Volume/ Berat	
Uraian tentang wadah	
1. Bahan	
2. Bentuk	
3. Ukuran (diameter) (tinggi)	
4. Ketebalan bahan	
5. Warna	
6 Bahan lapisan permukaan wadah	
7. Bahan tutup wadah	

(2) Pembungkusan

(Uraikan dengan menyebutkan bahan pembungkus, bentuk, ukuran, ketebalan bahan,

banyaknya wadah yang dibungkus, cara pembungkusan termasuk penyekatan antar wadah, dsb)

11

3. LABEL YANG DIUSULKAN

(Lampirkan contoh yang diusulkan dalam bahasa Indonesia sesuai dengan ketentuan peraturan yang berlaku).

4. KETERANGAN TENTANG PENDAFTARAN DAN IZIN DI NEGARA LAIN

(Lampirkan salinan izin dan label yang berlaku di negara asal dan di beberapa negara lainnya).

V. KETERANGAN MENGENAI PEMOHON PEMILIK FORMULASI DAN ASAL BAHAN
TEKNIS/AKTIF

1. NAMA DAN ALAMAT PEMOHON

Catatan : Perlu dilampirkan salinan akte pendirian badan hukum .

2. NAMA DAN ALAMAT PEMILIK FORMULASI

Catatan : Yang dimaksud dengan pemilik formulasi adalah orang atau badan hukum yang menjadi pemilik atas suatu resep formulasi pestisida dan atas pestisida yang dibuat menurut kehendaknya berdasarkan resep tersebut.

12

3. NAMA DAN ALAMAT PEMBUAT BAHAN TEKNIS/BAHAN AKTIF

Catatan : Yang dimaksud dengan pembuat bahan teknis/bahan aktif adalah orang atau badan hukum yang membuat bahan teknis/bahan aktif. Bersama daftar isian ini perlu dilampirkan surat keterangan dari instansi pemerintah yang berwenang di bidang industri pestisida di negara yang bersangkutan yang menjelaskan bahwa pembuat bahan teknis/bahan aktif tersebut adalah suatu industri yang membuat bahan teknis/bahan aktif yang tersebut pada label komposisi formulasi dan komposisi bahan teknis

Diisi sesuai dengan kebenaran

Jakarta

.....

(tempat)

.....

(tanggal)

.....

(tanda tangan dan nama jelas
serta cap badan hukum pemohon)

附件七

韓國 2004 年製藥法(藥事法)修正版

	1963·12·13	Act No. 1491
Amended By	1965· 4· 3	Act No. 1694
Amended By	1967· 3· 3	Act No. 1910
Amended By	1971· 1·13	Act No. 2279
Amended By	1973· 3·13	Act No. 2611
Amended By	1975·12·31	Act No. 2861
Amended By	1981· 4·13	Act No. 3441
Amended By	1986· 5·10	Act No. 3825
Amended By	1990·12·27	Act No. 4268
Amended By	1991·12·31	Act No. 4486
Amended By	1994· 1· 7	Act No. 4731
Amended By	1994·12·31	Act No. 4852
Amended By	1995·12· 6	Act No. 4980
Amended By	1995·12·29	Act No. 5101
Amended By	1996· 8· 8	Act No. 5153
Amended By	1997·12·13	Act No. 5453
Amended By	1997·12·13	Act No. 5454
Amended By	1998· 2·28	Act No. 5529
Amended By	1999· 3·31	Act No. 5959
Amended By	1999· 5·24	Act No. 5982
Amended By	1999· 9· 7	Act No. 6025
Amended By	2000· 1·12	Act No. 6153
Amended By	2000· 8· 5	Act No. 6272
Amended By	2001· 1·29	Act No. 6400
Amended By	2001· 8·14	Act No. 6511
Amended By	2002· 1·14	Act No. 6611
Amended By	2002· 3·30	Act No. 6685
Amended By	2002·12·30	Act No. 6844
Amended By	2003· 9·29	Act No. 6982
Amended By	2004· 1·29	Act No. 7148

CHAPTER I GENERAL PROVISIONS

Article 1 (Purpose)

The purpose of this Act is to provide for the matters concerning pharmaceutical affairs, to ensure proper operation thereof, and thereby to contribute to the improvement of the national public health.

Article 2 (Definitions)

(1) For the purpose of this Act, the term "pharmaceutical affairs" means such matters as manufacturing, preparation, providing expert opinions, keeping, import and sale (including dispensation; hereinafter the same shall apply) of medicines, non-pharmaceutical drugs and medical appliances, and other matters relating to pharmaceutical technology. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 6025, Sep. 7, 1999; Act No. 6153, Jan. 12, 2000>

(2) For the purpose of this Act, the term "pharmacist" means a person who takes charge of matters concerning pharmaceutical affairs (including those concerning preparation of herb drugs) other than those concerning herb drugs; and the term "herb pharmacist" means a person who takes charge of matters concerning the pharmaceutical affairs related to herb drugs and preparation thereof; all of them shall be licensed by the Minister of Health and Welfare. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

(3) For the purpose of this Act, the term "pharmacy" means a place where a pharmacist or herb pharmacist conducts the preparation of medicines for the purpose of dispensation (in the case where a person opens a pharmacy and engages in the sale of medicines, such a place as required for the sale of medicines shall be included in the category of this place): Provided, That dispensaries of medical institutions shall be excluded. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971>

(4) For the purpose of this Act, the term "medicines" means articles falling under any of the following subparagraphs: <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 6153, Jan. 12, 2000>

1. Articles listed in the Korean Pharmacopoeia other than non-pharmaceutical drugs;

2. Articles used for the purpose of diagnosis, medical care, mitigation, treatment

or prevention of diseases of human beings or animals, excluding appliances,
machinery or equipment; and

3. Articles, other than appliances, machinery or equipment, used for the purpose
of exerting pharmacological effect upon the structure or functions of human
beings or animals.

(5) For the purpose of this Act, the term "herb drugs" means raw drugs picked
from animals, plants or minerals, and dried, cut or carefully prepared without
changing the original forms in most cases. <Amended by Act No. 3825, May 10,
1986>

(6) For the purpose of this Act, the term "preparation of herb drugs" means
medicines made by mixing herb drugs according to the dosage principles of herb
drugs. <Newly Inserted by Act No. 4731, Jan. 7, 1994>

(7) For the purpose of this Act, the term "non-pharmaceutical drugs" means
articles, designated by the Minister of Health and Welfare, which fall under each
of the following subparagraphs (excluding articles which can be concurrently
used for the purpose of usage under the provisions of paragraph (4) 2 or 3):
<Amended by Act No. 6153, Jan. 12, 2000; Act No. 6844, Dec. 30, 2002>

1. Fibers, rubber products or similar products used for the purpose of treating,
alleviating, or preventing human or animal diseases;

2. Non-appliance, non-machinery or similar articles which act slightly upon or do
not act upon the human body; and

3. Preparations used for sterilization, insecticide and uses similar thereto for the
purpose of preventing infectious diseases.

(8) Deleted. <by Act No. 6153, Jan. 12, 2000>

(9) For the purpose of this Act, the "medical appliances" means instruments,
machines or equipment designated by the Commissioner of the Korea Food and
Drug Administration, used for diagnosis, medical care, mitigation, medical

treatment or prevention of diseases of human beings or animals, and for exerting effect upon the structure and functions of the human body or animals. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(10) and (11) Deleted. <by Act No. 6153, Jan. 12, 2000>

(12) For the purpose of this Act, the term "new medicine" means a new material medicine where the chemical structure or essential composition of which is entirely new, or a composite prepared medicine containing new materials as ingredients, which are designated by the Commissioner of the Korea Food and Drug Administration. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(13) For the purpose of this Act, the term "general medicines" means medicines that fall under each of the following subparagraphs and conform to the standards set and published by the Minister of Health and Welfare: <Amended by Act No. 6511, Aug. 14, 2001>

1. Medicines that are less feared to be misused and abused, and expected to keep their safety and effectiveness intact even if they are used without prescriptions written out by doctors or dentists;

2. Medicines that require no professional knowledges of doctors or dentists for treatment of disease; and

3. Medicines that have relatively little adverse reaction on human bodies in light of their dosage form and pharmacological action.

(14) For the purpose of this Act, the term "special medicines" means the medicines that are not general medicines. <Amended by Act No. 6511, Aug. 14, 2001>

(15) For the purpose of this Act, the term "preparation of medicines" means preparing medicines for the purpose of treating or preventing specific disease of a specific person according to a specific usage through the mixture of not less

than two medicines or the division of one medicine into a certain quantity.
<Newly Inserted by Act No. 6153, Jan. 12, 2000>

(16) For the purpose of this Act, the term "guidance on taking medicines" means what falls under each of the following subparagraphs: <Newly Inserted by Act No. 6511, Aug. 14, 2001>

1. Act of providing information on the names of medicines, ways of using them, volumes, efficacies, effectiveness, ways of making storage, adverse reactions and interactions, etc. involving medicines; and

2. Act of assisting purchasers in choosing medicines that they are in need instead of being based on arbitrary judgment of persons selling general medicines.

CHAPTER II PHARMACIST AND HERB PHARMACIST

SECTION 1 Qualifications and Licenses

Article 3 (Qualifications and Licenses for Pharmacist)

(1) Any person who desires to become a pharmacist shall obtain the license from the Minister of Health and Welfare in accordance with the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 5454, Dec. 13, 1997>

(2) The license for a pharmacist under paragraph (1) shall be given to a person falling under any of the following subparagraphs: <Amended by Act No. 2279, Jan. 13, 1971; Act No. 4268, Dec. 27, 1990; Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997; Act No. 6400, Jan. 29, 2001>

1.A person who has graduated from a college whose major subject of study is pharmacy, registered his bachelor's degree in pharmacy with the Ministry of Education and Human Resources Development, and passed the national examination for pharmacists; and

2.A person who has graduated from a foreign college specializing in pharmacy, accredited by the Minister of Health and Welfare, obtained a foreign license of a pharmacist, and passed the national examination for pharmacists.

(3) Any person who has not obtained a pharmacist license shall be prohibited from using the title of pharmacist.

Article 3-2 (Qualification and License for Herb Pharmacist)

(1) Any person who desires to be a herb pharmacist, shall obtain the license from the Minister of Health and Welfare under the conditions as prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 5454, Dec. 13, 1997>

(2) The license for herb pharmacist as referred to in paragraph (1) shall be granted to a person who has graduated from a college after completing the subjects connected to the herb drugs as prescribed by the Presidential Decree, registered the bachelor's degree with the Ministry of Education and Human Resources Development, and passed the national examination for herb pharmacists. <Amended by Act No. 6400, Jan. 29, 2001>

(3) Any person who has not been granted the license for herb pharmacist, shall be prohibited from using the title of "herb pharmacist".
[This Article Newly Inserted by Act No. 4731, Jan. 7, 1994]

Article 4 (Disqualification, etc.)

(1) No license of pharmacist or herb pharmacist shall be given to persons falling under any of the following subparagraphs: <Amended by Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 6153, Jan. 12, 2000; Act No. 6685, Mar. 30, 2002>

1.Deleted; <by Act No. 6153, Jan. 12, 2000>

2.A mental patient;

3.Deleted; <by Act No. 4486, Dec. 31, 1991>

4.A person who has been adjudicated incompetent or quasi-incompetent or bankrupt who has not yet been reinstated;

5.Narcotic addicts and persons intoxicated to other harmful materials;

6.A person who has been sentenced to imprisonment without prison labor or a heavier penalty on charges of violating the [Pharmaceutical Affairs Act](#), the [Act on the Control of Narcotics, etc.](#), the [Act on Special Measures for the Control of Public Health Crimes](#), the [Medical Service Act](#), [Article 347 of the Criminal Act](#) (limited to the case of deceiving patients or an institution or organization paying the drug expenses by demanding the drug expenses by falsity; hereinafter the same shall apply) and other Acts and subordinate statutes related to pharmaceutical affairs and for whom the sentence has yet to be terminated or exemption from its execution has yet to be made definite;

7.A person who has been subjected to a disposition of cancellation of his license by committing the crimes under [Article 347 of the Criminal Act](#) and for whom 3 years have not elapsed, or subjected to a disposition of cancellation of his license by violating Acts and subordinate statutes relating to pharmaceutical affairs and for whom 2 years have not elapsed; and

8.Deleted. <by Act No. 4486, Dec. 31, 1991>

(2) Deleted. <by Act No. 4731, Jan. 7, 1994>

Article 5 (Issuance and Registration of License)

(1) When the Minister of Health and Welfare issues a pharmacist's or herb pharmacist's license, he shall register matters relating to the license in the respective relevant registers and issue the license concerned. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

(2) If the license as referred to in paragraph (1) has been lost or damaged, or the matters stated therein have been changed, a new license may be issued in lieu thereof. <Amended by Act No. 4486, Dec. 31, 1991>

(3) No license shall be loaned to any other person.

(4) Matters necessary for registration of a pharmacist's or herb pharmacist's license and its issuance thereof shall be prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

Article 6 (Report of Pharmacist or Herb Pharmacist)

Pharmacists or herb pharmacists shall file with the Minister of Health and Welfare a report on matters as prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

Article 7 (State-Administered Examination for Pharmacists or Herb Pharmacists)

(1) The national examination for pharmacists or herb pharmacists shall be given once or more a year by the Minister of Health and Welfare. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

(2) The Minister of Health and Welfare may commission relevant specialized institutions recognized as competent to administer the state-administered examination for pharmacists or herb pharmacists referred to in paragraph (1) as prescribed by the Presidential Decree. <Newly Inserted by Act No. 6153, Jan. 12, 2000>

(3) The Minister of Health and Welfare may, when he commissions such specialized institutions to administer such state-administered examination under paragraph (2), subsidize necessary expenses. <Newly Inserted by Act No. 6153, Jan. 12, 2000>

(4) Matters necessary for the national examination of pharmacists or herb pharmacists shall be prescribed by the Presidential Decree. <Amended by Act No. 4731, Jan. 7, 1994>

Article 8 (Restrictions on Application for Examination)

Persons falling under [Article 4](#) (1) 2, 4 and 5 shall not apply for the national examination for pharmacists or herb pharmacists. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 6153, Jan. 12, 2000>

Article 9

Deleted. <by Act No. 2279, Jan. 13, 1971>

Article 10 (Cheating of Examinee)

(1) Any person who has cheated with regard to the national examination of pharmacists or herb pharmacists shall be suspended from taking the examination. In the case where the fact of cheating is found after a candidate has passed the examination, the pass shall be nullified. <Amended by Act No. 4731, Jan. 7,

1994>

(2) The Minister of Health and Welfare may disallow persons falling under paragraph (1) to apply for the national examination for pharmacists or herb pharmacists, for a period of two years. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

SECTION 2 Pharmacists' Association

Article 11 (Pharmacists' Association)

(1) Pharmacists shall establish the Korean Pharmacists' Association (hereafter referred to as the "Pharmacists' Association") to research pharmaceutical affairs, establish pharmaceutical ethics, and to cooperate in accordance with pharmaceutical policies under the conditions as prescribed by the Presidential Decree. <Amended by Act No. 2861, Dec. 31, 1975>

(2) The Pharmacists' Association shall be a juristic person.

(3) When the Pharmacists' Association as referred to in paragraph (1) is established, pharmacists shall become members of the Association.

(4) The provisions of the [Civil Act](#) relating to the corporate juristic person, in addition to those of this Act, shall be applicable to the Pharmacists' Association. [This Article Wholly Amended by Act No. 1910, Mar. 3, 1967]

Article 12 (Approval)

(1) When the Pharmacists' Association is established, the articles of association and other necessary documents shall be submitted to the Minister of Health and Welfare for his approval as prescribed by the Presidential Decree. <Amended by

Act No. 5454, Dec. 13, 1997>

(2) Matters to be stated in the Articles of the Pharmacists' Association shall be prescribed by the Presidential Decree.

(3) If the Pharmacists' Association desires to modify its articles of association, it shall obtain approval from the Minister of Health and Welfare. <Amended by Act No. 5454, Dec. 13, 1997>

Article 12-2 (Chapter of Pharmacists' Association)

(1) The Pharmacists' Association shall, in accordance with the Presidential Decree establish its chapters in the Special Metropolitan City, Metropolitan Cities and Dos, and may establish branches in Kus (only in the Special Metropolitan City, and Metropolitan Cities), other Shis and Kuns. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

(2) When the Pharmacists' Association has established its chapters and branches, it shall, without delay, file a report thereof with the Special Metropolitan City Mayor, Metropolitan City Mayors or Do governors. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>
[This Article Newly Inserted by Act No. 1910, Mar. 3, 1967]

Article 13

Deleted. <by Act No. 6153, Jan. 12, 2000>

Article 13-2 (Training and Education)

(1) The Minister of Health and Welfare may order training and education for the improvement of quality of pharmacists. <Amended by Act No. 4486, Dec. 31,

1991; Act No. 5454, Dec. 13, 1997>

(2) Necessary matters concerning training and education under paragraph (1) shall be prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997> [This Article Newly Inserted by Act No. 2861, Dec. 31, 1975]

Article 13-3 (Duty of Cooperation and Entrustment)

(1) The Pharmacists' Association shall cooperate with the conciliatory request of the Minister of Health and Welfare concerning the enterprises necessary for the improvement of national public health, pharmaceutical affairs and of the pharmacists' ethics. <Amended by Act No. 5454, Dec. 13, 1997>

(2) The Minister of Health and Welfare may, if necessary, carry out part of the matters concerning pharmacists' ethics or pharmaceutical affairs, by entrusting matters to the Pharmacists' Association under the conditions as prescribed by the Presidential Decree. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997> [This Article Newly Inserted by Act No. 2861, Dec. 31, 1975]

Article 13-4 (Support of Expenses)

When the Minister of Health and Welfare deems that the undertaking of the Pharmacists' Association is necessary for the improvement of national public health, or that he has ordered or entrusted the Association to conduct training, investigation and research for pharmacists, he may subsidize wholly or partly the necessary expenditure. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997> [This Article Newly Inserted by Act No. 2861, Dec. 31, 1975]

CHAPTER III PHARMACEUTICAL AFFAIRS COUNCIL

Article 14 (Central Pharmaceutical Affairs Council)

(1) A Central Pharmaceutical Affairs Council shall be established under the Ministry of Health and Welfare in order to provide the Minister and the Commissioner of the Korea Food and Drug Administration with advice when requested. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(2) Matters necessary for the composition and operation of the Central Pharmaceutical Affairs Council and other necessary matters, shall be determined by the Presidential Decree.

Article 15 (Local Pharmaceutical Affairs Council)

(1) Local Pharmaceutical Affairs Councils may be established in the Special Metropolitan City, Metropolitan Cities or Dos in order to provide the Special Metropolitan City Mayor, Metropolitan City Mayors or Do governors with advice when requested. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

(2) Matters relating to the composition and operation of the Local Pharmaceutical Affairs Councils and other necessary matters, shall be determined by the regulations of the Special Metropolitan City, Metropolitan Cities or Dos respectively. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

CHAPTER IV PHARMACY AND PREPARATION OF MEDICINES

SECTION 1 Pharmacy

Article 16 (Registration of Establishment of Pharmacy)

(1) No person other than a pharmacist or herb pharmacist shall establish a pharmacy. <Amended by Act No. 4731, Jan. 7, 1994>

(2) Any person intending to establish a pharmacy shall file a registration of establishment with the head of the Shi/Kun/Ku (referring to an autonomous Ku; hereafter the same shall apply) in accordance with the Ordinance of the Ministry of Health and Welfare. The same shall apply in the case of any change in the registered matters. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 3441, Apr. 13, 1981; Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

(3) Any person desiring to file a registration under paragraph (2) shall install necessary facilities in conformity with the standards of the facilities as prescribed by the Presidential Decree. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 4486, Dec. 31, 1991>

(4) The Special Metropolitan City, Metropolitan Cities or Dos may set a standard of registration for establishing a pharmacy, respectively by regulations of the Special Metropolitan City, Metropolitan Cities or Dos in conformity with the standards as prescribed by the Presidential Decree. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

(5) In the case falling under each of the following subparagraphs, the application for the registration of a pharmacy shall not be accepted: <Newly Inserted by Act No. 1694, Apr. 3, 1965; Act No. 4486, Dec. 31, 1991; Act No. 6153, Jan. 12, 2000; Act No. 6511, Aug. 14, 2001>

1. Where a person whose registration of a pharmacy has been cancelled pursuant to the provisions of [Article 69](#) intends to register within six months from the date _____ of _____ cancellation;
2. Where a pharmacy is opened in a place which is located within facilities or compound _____ of _____ a _____ medical _____ institution;
3. Where a pharmacy is opened by dividing, altering or repairing part of facilities or _____ lot _____ of _____ a _____ medical _____ institution; _____ and
4. Where a pathway such as an exclusive corridor, a flight of stairs, an elevator or a footbridge, etc. is in place or to be constructed between a pharmacy and a medical _____ institution.

Articles 17 and 18

Deleted. <by Act No. 1694, Apr. 3, 1965>

Article 19 (Duty to Manage Pharmacy)

(1) A pharmacist or herb pharmacist may establish only one pharmacy.
<Amended by Act No. 4731, Jan. 7, 1994>

(2) Any person who has established a pharmacy shall manage the pharmacy himself: Provided, That where a pharmacy operator is unable to run his pharmacy, he shall designate a pharmacist or a herb pharmacist to run such pharmacy on behalf of him. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2611, Mar. 13, 1973; Act No. 3441, Apr. 13, 1981; Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

(3) Deleted. <by Act No. 6153, Jan. 12, 2000>

(4) Every pharmacist or every herb pharmacist who manages a pharmacy shall

observe the matters falling under each of the following subparagraphs, which are necessary to manage such pharmacy: <Amended by Act No. 6511, Aug. 14, 2001>

1.He shall manage his pharmacy in a sanitary manner in order to prevent any danger to the facilities of his pharmacy and to keep the efficacy of medicines therein from falling;

2.He shall thoroughly oversee his employees in order to prevent any sanitary incident from occurring;

3.He shall keep any goods feared to incur any sanitary danger off from his pharmacy;

4.In the event that any adverse reaction, etc. occurs in connection with the use of medicines, etc., he shall file a report thereof under the conditions as prescribed by the Commissioner of the Korea Food and Drug Administration and take necessary safety steps; and

5.He shall observe other matters that are associated with subparagraphs 1 through 4 and recognized by the Ordinance of the Ministry of Health and Welfare as necessary to manage the facilities and medicines of pharmacies in a sanitary manner.

Article 20 (Report on Discontinuation of Business, etc.)

A pharmacy operator shall, when he discontinues the business of running his pharmacy, or suspends such business or resumes the suspended business, file a report thereof with the head of Shi/Kun/Ku who holds jurisdiction over his business within 7 days from the date of discontinuation, suspension or resumption as prescribed by the Ordinance of the Ministry of Health and Welfare: Provided, That the same shall not apply to the case where the period of business suspension and resumption is less than one month.
[This Article Wholly Amended by Act No. 6153, Jan. 12, 2000]

SECTION 2 Preparation of Medicines

Article 21 (Preparation of Medicines)

(1) No person other than pharmacists or herb pharmacists may prepare medicines; pharmacists or herb pharmacists shall prepare the medicines in the limit of the license, respectively: Provided, That students who major in pharmacy at college may prepare medicines in the limits as prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

(2) When a pharmacist or herb pharmacist is to prepare medicines, he shall do so at a pharmacy or a dispensary of a medical institution (including the dispensary installed in the Korea Orphan Drug Center pursuant to the provisions of proviso of [Article 72-13](#) (1)): Provided, That this shall not apply to the case where he has obtained approval from the head of Shi/Kun/Ku. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5959, Mar. 31, 1999; Act No. 6982, Sep. 29, 2003>

(3) Deleted. <by Act No. 1694, Apr. 3, 1965>

(4) Any doctor or dentist shall be able to prescribe special and general medicines and any pharmacist shall be able to prepare special and general medicines according to prescriptions made by doctors or dentists: Provided, That a pharmacist may prepare medicines without prescriptions given by a doctor or dentist in the case falling under each of the following subparagraphs: <Newly Inserted by Act No. 4731, Jan. 7, 1994; Act No. 6153, Jan. 12, 2000; Act No. 6511, Aug. 14, 2001>

1. Where he prepares medicines in an area where no medical institution exists;

2. Where he prepares medicines for the purpose of disaster relief after a natural disaster renders medical institutions virtually nonexistent;

3. Where he sells oral vaccines to prevent spread of infectious disease after the Minister of Health and Welfare recognizes that such infectious disease has broken out or is feared to break out widely; and

4. Where he prepares medicines for social service activities.

(5) Notwithstanding the provisions of paragraph (1), a doctor or dentist may directly prepare the medicines, only in the following cases: <Newly Inserted by Act No. 4731, Jan. 7, 1994; Act No. 5101, Dec. 29, 1995; Act No. 6153, Jan. 12, 2000; Act No. 6511, Aug. 14, 2001>

1. Where he prepares medicines in an area where no pharmacy exists;

2. Where he prepares medicines for the purpose of disaster relief after a natural disaster renders pharmacies virtually nonexistent;

3. Where he prepares medicines for an emergency patient or a mental patient suffering from schizophrenia or a manic-depressive insanity who is feared to harm himself and others;

4. Where he prepares medicines for an in-patient, a first-category patient suffering from contagious disease under the [Prevention of Contagious Diseases Act](#) or a person admitted to a social welfare facility under the [Social Welfare Services Act](#) (in case that person does not board and lodge in such facility, only the preparation of medicines during a period for which he utilizes such facility shall be applied);

5. Where he gives injections;

6. Where he makes dosages of vaccines to prevent infectious diseases, medicines for medical examinations and other medicines, etc. prescribed by the Ordinance of the Ministry of Health and Welfare;

7. Where he, while serving in a public health center or its branch office as prescribed by the [Regional Public Health Act](#), prepares medicines for patients,

as performance of his duties (excluding treatment of visiting residents within the jurisdiction of a public health center and such a public health branch office as determined by the Minister of Health and Welfare);

8. Where he prepares medicines for veterans suffering from wound-rating I through III under the [Act on the Honorable Treatment and Support of Persons, etc. of Distinguished Services to the State](#), highly handicapped persons under the Act on Assistance, etc. to Patients from Actual or Potential Effects of Defoliants, I-grading and II-grading handicapped persons under Acts and subordinate statutes related to the welfare of handicapped persons, patients suffering from Parkinson's disease and lepers;

9. Where he prepares medicines for the treatment of persons having undergone the surgery of internal organ transplant and the treatment of patients suffering from AIDS;

10. Where he prepares medicines for active servicemen, combat police officers, prison guards and other persons who are held in prison facilities under the [Criminal Administration Act](#) and the Military [Criminal Administration Act](#), juvenile protection facilities under the [Juvenile Reformatory Act](#) and foreigner protection facilities under the [Immigration Control Act](#);

11. Where he makes dosages of medicines for treatment of tuberculosis under the [Tuberculosis Prevention Act](#) (limited to public health centers, public health branches and hospitals attached to the Korea Tuberculosis Association);

12. Where he prepares medicines for social service activities;

13. Where prescriptions are prohibited from being made public for the sake of the preservation of information related to the national security; and

14. Other cases as prescribed by the Presidential Decree.

(6) The scope of the area where no medical institution or pharmacy exists, as referred to in paragraph (4) 1 or (5) 1, shall be determined by the Minister of Health and Welfare. <Newly Inserted by Act No. 4731, Jan. 7, 1994; Act No.

5454, Dec. 13, 1997>

(7) When a herb pharmacist prepares any herb drug, he shall comply with the prescription of a herb doctor: Provided, That in the case where he prepares it according to the category of herb medicine prescription or method of preparation as prescribed by the Minister of Health and Welfare this shall not apply. <Newly Inserted by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

(8) Any pharmacist engaging in the preparation of medicines at a dispensary of a medical institution shall be prohibited from preparing any medicines for a patient for whom a prescription is given under the provisions of [Article 18-2 of the Medical Service Act](#). <Newly Inserted by Act No. 6153, Jan. 12, 2000>

Article 22 (Duty and Matters to be Observed)

(1) The pharmacist or herb pharmacist engaging in the preparation of medicines at a pharmacy, shall not refuse any request for preparing medicines, without proper reasons. <Amended by Act No. 4731, Jan. 7, 1994>

(2) Any person who has established a pharmacy (including persons working for the relevant pharmacy; the same in this Article shall apply) and any person who has established a medical institution (including persons working for the relevant medical institution; the same in this Article shall apply) shall be prohibited from performing the collusive act falling under each of the following subparagraphs: <Amended by Act No. 6511, Aug. 14, 2001>

1.The act, performed by any person who has established a pharmacy, of exempting, in whole or in part, medicine expenses for any person carrying a medical prescription written by a specific medical institution;

2.The act, performed by any person who has established a pharmacy, of offering money, favors, labor, entertainment and other economic interest in return for medical prescriptions arranged by a specific medical institution in favor of him;

3.The act, performed by any person who has established a medical institution, of directing or inducing any person carrying its medical prescription to get such medical prescription prepared at a specific pharmacy (excluding the act of introducing in full the names and locations, etc. of pharmacies in the relevant area at the request of any patient);

4.The act, performed by any doctor or any dentist, of repeatedly prescribing other medicines that are identical in composition to the medicines that are included in the table of prescription medicines provided by the branches of the Doctors' Association or the branches of the Dentists' Association to the branches of the Pharmacists' Association under [Article 22-2](#) (2) (the same shall apply to any pharmacist who repeatedly prepares the relevant medicines according to the relevant medical prescription); and

5.Other act which is similar to the act referred to in paragraphs (1) through (4) and prescribed by the Presidential Decree as having the potential of collusion.

(3) Any pharmacist or herb-pharmacist working at a dispensary of a medical institution under the provisions of [Article 21](#) (2) shall, when he prepares medicines, observe matters prescribed by the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 5959, Mar. 31, 1999>

(4) Every pharmacist shall, when he prepares medicines for any patient, give the guidance of taking such medicines to the patient. <Newly Inserted by Act No. 6511, Aug. 14, 2001>

(5) The Minister of Health and Welfare may take necessary steps to get pharmacists to faithfully offer patients the guidance on taking medicines as provided for in paragraph (4) through the preparation of a proper number of medical prescriptions. <Newly Inserted by Act No. 6511, Aug. 14, 2001>

Article 22-2 (Compilation of Table of Prescription Medicines)

(1) Any person who has established a medical institution shall submit a table of medicines that his medical institution intends to prescribe to the branch of the Doctors' Association or the branch of the Dentists' Association (hereinafter referred to as the "branch of the Doctors' Association, etc."), established pursuant to [Article 26 \(5\) of the Medical Service Act](#), of the Shi/Kun/Ku where such medical institution is located.

(2) The branch of the Doctors' Association, etc. shall provide the branch of the Pharmacists' Association of the relevant Shi/Kun/Ku with a table of local prescription medicines which is obtained by adjusting the table of prescription medicines by medical institution to a reasonable number of medicine items and a table of prescription medicines by medical institution which is obtained by adjusting within the scope of the table of local prescription medicines.

(3) The branch of the Pharmacists' Association shall, upon receiving the table of local prescription medicines and the table of prescription medicines by medical institution from the branch of the Doctors' Association, etc. under paragraph (2), furnish persons who have established pharmacies in the relevant area with such tables and get them to keep the tables.

(4) In the event that any person who has established a pharmacy finds it difficult to secure medicines according to the tables of prescription medicines referred to in paragraph (2) and that it becomes necessary to adjust the number of medicine items, the branch of the Doctors' Association, etc. and the branch of Pharmacists' Association may adjust it through consultations. The same shall apply to a case where medicine items are added or altered.

(5) The branch of the Doctors' Association, etc. shall, if it intends to alter or add the tables of prescription medicines referred to in paragraph (2), file a notice to that effect with the branch of the Pharmacists' Association 30 days in advance.
[This Article Wholly Amended by Act No. 6511, Aug. 14, 2001]

Article 23 (Modification and Revision of Prescriptions)

(1) Any pharmacist or herb pharmacist shall not prepare medicines by modifying or revising prescriptions without the consent of the doctor, dentist, herb doctor or veterinarian who has made the prescriptions. <Amended by Act No. 3825, May 10, 1986; Act No. 4731, Jan. 7, 1994>

(2) If a prescription includes any doubtful points, the pharmacist or herb pharmacist shall not prepare medicines without inquiring of the doctor, dentist, herb doctor or veterinarian who has issued the relevant prescription, for the verification of such doubtful points. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 3825, May 10, 1986; Act No. 4731, Jan. 7, 1994>

(3) Detailed matters such as the method and procedures for revising and modifying the prescription under paragraph (1) and other necessary matters shall be prescribed by the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 5959, Mar. 31, 1999>

Article 23-2 (Preparation of Alternative Medicines)

(1) Every pharmacist shall, when he intends to prepare other medicines which are identical in composition, content and dosage to the medicines entered in a medical prescription written by a doctor or a dentist, obtain in advance consent of such doctor or such dentist.

(2) Every pharmacist may prepare alternative medicines without seeking in advance consent of a doctor or a dentist who writes a medical prescription thereof in the case falling under each of the following subparagraphs, notwithstanding the provisions of paragraph (1):

1. Where the pharmacist prepares alternative medicine items which are recognized by the Commissioner of the Korea Food and Drug Administration as having biological equivalence (including medicines that prove their biological equivalence through a medical experiment using no living body because of the needlessness to conduct a medical experiment using a living body or of the impossibility to do so): Provided, That medicine items, in the medical

prescription of which a doctor or a dentist indicates no to any alternative medicine preparation and specifies clinical grounds, etc. thereof shall be excluded;

2. Where the pharmacist prepares alternative medicines which are produced by the same drug manufacturer who also produces the medicines entered in a medical prescription and are different in content with the same ingredients, the same dosage form and the same prescription dosage: Provided, That the preparation of such alternative medicines shall be limited to a case where general medicines are alternatively prepared into general medicines and special medicines are alternatively prepared into special medicines; and

3. Where medicines entered in a medical prescription written by a medical institution located in an area other than the Shi/Kun/Ku where a pharmacy is located are unavailable on the table of local prescription medicines of the relevant pharmacy and that the pharmacist of such pharmacy prepares alternative medicines which are identical in composition, content and dosage form to the medicines prescribed by a doctor or a dentist because of unavoidable circumstances that render it difficult to obtain consent of such doctor or dentist.

(3) Every pharmacist shall, if he prepares alternative medicines instead of the medicines entered in a medical prescription under paragraph (1) or (2), notify a person carrying such medical prescription of details of such alternative medicines he prepares.

(4) Every pharmacist shall, if he prepares alternative medicines instead of the medicines entered in a medical prescription under paragraph (2), notify a doctor or a dentist who writes such medical prescription of details of such alternative medicines he prepares within one day from the date of preparation (within 3 days in the case of unavoidable grounds): Provided, That the same shall not apply to a case where the pharmacist prepares such alternative medicines after obtaining in advance consent of the doctor or dentist who writes the medical prescription thereof.

(5) In the event that any pharmacist prepares alternative medicines instead of

the medicines entered in a medical prescription without prior consent of a doctor or dentist who writes such medical prescription, such doctor or dentist shall not be held responsible for any drug accident caused by such alternative medicines.

(6) Necessary matters concerning ways of and procedures for obtaining consent and serving notice, etc. under paragraphs (1) and (4) shall be laid down by the Ordinance of the Ministry of Health and Welfare.
[This Article Wholly Amended by Act No. 6511, Aug. 14, 2001]

Article 24 (Description of Prepared Medicines)

(1) A pharmacist or herb pharmacist shall indicate patient's name, directions, and dose mentioned in the pertinent prescriptions and other matters as provided for in the Ordinance of the Ministry of Health and Welfare regarding containers or packages of medicines prepared for sales. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

(2) When a pharmacist or herb pharmacist has prepared medicines, he shall indicate in the prescriptions, the date of preparation and such other matters as provided for in the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

Article 25 (Preservation of Prescriptions)

The pharmacist or herb pharmacist shall keep prescriptions by which he has prepared medicines at his pharmacy, for two years from the date of preparation.
<Amended by Act No. 4731, Jan. 7, 1994>

Article 25-2 (Preparation Records)

(1) Every pharmacist shall, whenever he prepares medicines at his pharmacy, enter the name of a patient, preparation date, the names of medicines and the days of taking medicines, details of preparation, details of guidance on taking medicines and other matters laid down by the Ordinance of the Ministry of Health and Welfare in his preparation records (including digital records) and keep such preparation records for 5 years.

(2) In the event that any patient, his spouse or his direct descendant (an agent designated by such patient in case that his spouse, his direct descendant and the direct descendant of his spouse are all nonexistent) asks for a perusal of the preparation records kept under paragraph (1), a copy of such preparation records and a confirmation of details of such preparation records, etc., he shall comply with such request.
[This Article Newly Inserted by Act No. 6511, Aug. 14, 2001]

CHAPTER V MANUFACTURE, IMPORT OF MEDICINES, ETC.

SECTION 1 Manufacture of Medicines, etc.

Article 26 (License, etc. for Manufacturing Industry)

(1) Any person who intends to carry on the business of manufacturing medicines and medical appliances, shall obtain a license from the Commissioner of the Korea Food and Drug Administration as prescribed by the Ordinance of the Ministry of Health and Welfare. Any person who intends to do the business of manufacturing non-pharmaceutical drugs shall file a report thereof with the Commissioner of the Korea Food and Drug Administration, obtain a license by item from him or file a report by item with him. In this case, where he intends to alter matters prescribed by the Ordinance of the Minister of Health and Welfare from among licensed matters or reported matters, he shall obtain permission for

such alteration or file a report thereof as prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 6153, Jan. 12, 2000>

(2) Any person who desires to obtain a license, or make a report under paragraph (1), shall have the necessary facilities, according to the criteria of facilities as prescribed by the Presidential Decree. <Amended by Act No. 4486, Dec. 31, 1991>

(3) Deleted. <by Act No. 6153, Jan. 12, 2000>

(4) Manufacturers of medicines, etc. may establish business offices in accordance with the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 2279, Jan. 13, 1971; Act No. 5454, Dec. 13, 1997>

(5) Any license for the business of manufacturing medicines, non-pharmaceutical drugs or medical appliances (hereafter referred to as "medicines, etc.") shall not be granted to a person falling under any of the following subparagraphs or their report shall not be accepted: <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 6153, Jan. 12, 2000>

1.A person falling under any of subparagraphs of [Article 4](#) (1); and

2.A person for whom one year has yet to elapse from the date on which his business license is revoked or his factory is shut down under [Article 69](#).

(6) In the case as referred to in paragraph (1), if items to be licensed are new medicines or such medicines or medical appliances as designated by the Commissioner of the Korea Food and Drug Administration, the pertinent literature of test results on their safety and effectiveness and other necessary data, shall be submitted in accordance with the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000; Act No. 6511, Aug. 14, 2001>

(7) Deleted. <by Act No. 6511, Aug. 14, 2001>

(8) In granting a license for the manufacturing industry and for items of medicine, etc. as referred to in paragraph (1), the matters necessary for the object, standard, condition, control, etc. of the license, shall be determined by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

Article 26-2 (Re-examination of New Medicines)

(1) Medicines of those permitted under [Article 26](#) (1), falling under the former part of [Article 26](#) (6), shall undergo a re-examination by the Commissioner of the Korea Food and Drug Administration, within three months after four to six years have passed from the date of the item permission. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(2) Matters necessary for method, procedure, time, etc. for re-examination as referred to in paragraph (1) shall be determined by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 5454, Dec. 13, 1997>
[This Article Newly Inserted by Act No. 4486, Dec. 31, 1991]

Article 26-3 (Reevaluation of Medicines)

(1) The Commissioner of the Korea Food and Drug Administration may reevaluate medicines which are deemed necessary for the examination of their effect, safety and effectiveness or the verification of medicine equivalence by ingredient from among medicines for which permission by items has been granted or a report by item has been filed under the provisions of [Article 26](#) (1). <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000; Act No. 6511, Aug. 14, 2001>

(2) Matters necessary for method, procedure, etc. for re-evaluation as referred to in paragraph (1) shall be determined by the Commissioner of the Korea Food

and Drug Administration. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>
[This Article Newly Inserted by Act No. 4486, Dec. 31, 1991]

Article 26-4 (Approval of Clinical Demonstration Plan, etc.)

(1) Any person who intends to conduct a clinical demonstration using medicines or medical appliances, etc. shall work out a clinical demonstration plan and obtain approval therefor from the Commissioner of the Korea Food and Drug Administration. The same shall apply to a case where he intends to alter the approved clinical demonstration plan.

(2) Any person who intends to conduct the clinical demonstration under paragraph (1) shall be prohibited from selecting any person (hereafter in this paragraph referred to as "accommodated person") accommodated in a collective establishment, including social welfare establishments, etc., prescribed by the Ordinance of the Ministry of Health and Welfare, as a testee of such clinical demonstration: Provided, That the same shall not apply to a case where the selection of an accommodated person as a testee is inevitable in light of the characteristics of the clinical demonstration and such selection conforms to the standards set by the Ordinance of the Ministry of Health and Welfare.

(3) In the event that a clinical demonstration for which approval is sought under paragraph (1) is deemed or feared to cause dangers from the safety, effectiveness of pharmaceutical preparations containing questionable composition, blood pharmaceutical preparations, gene remedial agents and cell remedial agents, etc. to the public interest or health and sanitation, the Commissioner of the Korea Food and Drug Administration may place limits on such clinical demonstration.

(4) Any person who intends to conduct a clinical demonstration referred to in paragraph (1) shall explain details of such clinical demonstration and details of and procedures, etc. for an indemnity for any health damage that may be inflicted a testee during the clinical demonstration to such testee and then obtain

consent of the testee.

(5) Any person who intends to conduct a clinical demonstration of paragraph (1) shall use medicines and medical appliances, etc. which are manufactured or imported after being manufactured in manufacturing establishments which conform to what is prescribed by the Ordinance of the Ministry of Health and Welfare.

(6) In the event that any clinical demonstration for which approval or alteration approval is granted under paragraph (1) is conducted in violation of approved or alteration-approved matters, or serious safety and ethical questions are raised with respect to such clinical demonstration, the Commissioner of the Korea Food and Drug Administration may order that necessary steps be taken to halt using medicines for the clinical demonstration and recover or dispose of such medicines, etc.

(7) Matters to be included in the clinical demonstration plan referred to in paragraphs (1) and (4), details of the consent of a testee and the timing and ways thereof, standards for conducting the clinical demonstration and other necessary matters shall be laid down by the Ordinance of the Ministry of Health and Welfare.

[This Article Newly Inserted by Act No. 6511, Aug. 14, 2001]

Article 27 (Conditional License)

(1) In granting a license under [Article 26](#) (1), the Commissioner of the Korea Food and Drug Administration may grant a license to the manufacturing industry of medicines, etc. or items as prescribed by the Ordinance of the Ministry of Health and Welfare, on condition that the facilities as referred to in [Article 26](#)

(2) be established within a fixed period. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(2) If a person who has obtained a license under paragraph (1), does not establish proper facilities without justifiable reason, within the period stated

under paragraph (1), the Commissioner of the Korea Food and Drug Administration shall cancel the license. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>
[This Article Newly Inserted by Act No. 2861, Dec. 31, 1975]

Article 28

Deleted. <by Act No. 1694, Apr. 3, 1965>

Article 29 (Administrator of Manufacturing Medicines)

(1) The manufacturer of non-pharmaceutical drugs (excluding the manufacturer of non-pharmaceutical drugs who makes only articles falling under [Article 2](#) (7) 1) shall install the necessary number of pharmacists or herb pharmacists in each production facility to administer the manufacturing affairs in accordance with the Ordinance of the Ministry of Health and Welfare: Provided, That in the manufacturing industry of biological preparations, he may have a doctor or a technician with bacteriological knowledge, approved by the Commissioner of the Korea Food and Drug Administration to administer the manufacturing affairs thereof. <Amended by Act No. 2611, Mar. 13, 1973; Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>

(2) Deleted. <by Act No. 6153, Jan. 12, 2000>

(3) The manufacturer of medical appliances or the manufacturer of non-pharmaceutical drugs who makes only articles falling under [Article 2](#) (7) 1 shall install in each of his production facilities a technician approved by the Commissioner of the Korea Food and Drug Administration to supervise the affairs of manufacturing: Provided, That if the manufacturer himself is a technician approved by the Commissioner of the Korea Food and Drug Administration, and supervises the affairs of manufacturing at his production facility, this provision shall not be applicable. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>

Article 30 (Duty of Supervising Manufacture of Medicines, etc.)

(1) Any person who supervises the affairs of manufacturing medicines, etc., in accordance with the provisions of [Article 29](#) (hereinafter referred to as the "supervisor of manufacturing") shall observe such matters as provided for in the Ordinance of the Ministry of Health and Welfare with regard to guidance and supervision of employees engaging in the affairs of manufacturing medicines, etc., quality control, management of manufacturing facilities, and other matters on the supervision of manufacturing. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

(2) The supervisor of manufacturing shall not engage in business other than, manufacture supervising the production facility concerned. <Amended by Act No. 1694, Apr. 3, 1965>

(3) Manufacturers of medicines, etc. shall not interfere with the supervisory affairs of the supervisor of manufacturing, and shall not refuse without good reason, requests from the supervisor of manufacturing of matters necessary for carrying out his duties.

Article 31 (Duty of Production Management of Medicines and Report Thereof)

(1) Manufacturers of medicines, etc. shall observe matters prescribed by the Ordinance of the Ministry of Health and Welfare with respect to manufacture and quality control (including self-experiment). <Amended by Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

(2) Manufacturers of medicines, etc. shall report the production performance of medicines, etc. to the Commissioner of the Korea Food and Drug Administration under the conditions as prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 5454, Dec. 13,

1997; Act No. 5529, Feb. 28, 1998>

Article 32 (Report on Discontinuance of Business)

If a manufacturer of medicines, etc. has closed or suspended his production facility or reopens a production facility that was suspended, or if there are changes to the supervisor of manufacturing or in other matters as provided for in the Ordinance of the Ministry of Health and Welfare, he shall report on them to the Commissioner of the Korea Food and Drug Administration within twenty days from the date of such closing, suspension, reopening or changes: Provided, That the same shall not apply to the case where the period of business suspension falls short of one month. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>

Article 32-2

Deleted. <by Act No. 6153, Jan. 12, 2000>

Article 33 (Making of Dispensary Preparations)

(1) If a person who has opened a pharmacy, desires to make dispensary preparations, or does so at a dispensary of a medical institution designated by the Minister of Health and Welfare, he shall report the items to be manufactured to the head of the Shi/Kun/Ku in accordance with the Ordinance of the Ministry of Health and Welfare: Provided, That if he desires to make preparations at a dispensary of the medical institution which has been established by a license from the Special Metropolitan City Mayor, Metropolitan City Mayor or Do governor pursuant to the [Medical Service Act](#), he shall report it to the Special Metropolitan City Mayor, Metropolitan City Mayor or Do governor. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 3441, Apr. 13, 1981; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

(2) Deleted. <by Act No. 1694, Apr. 3, 1965>

(3) The scope of a pharmacy, a dispensary preparation, equipment of the dispensary, or other necessary matters, shall be determined by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 5454, Dec. 13, 1997>

(4) and (5) Deleted. <by Act No. 1694, Apr. 3, 1965>

SECTION 2 Import Permission, etc. of Medicines, etc.

Article 34 (Permission, etc. on Import of Medicines, etc.)

(1) Any importer (hereinafter referred to as "importer") shall obtain permission from, or file a report to the Commissioner of the Korea Food and Drug Administration, by items under the conditions as prescribed by the Ordinance of the Ministry of Health and Welfare. This provisions shall also apply in the case where he desires to modify the permitted or reported matters. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(2) Notwithstanding the provisions of paragraph (1), if the Minister of National Defense desires to import medicines, etc. not produced in Korea, for any urgent military purpose, he may import them with prior consultation with the Commissioner of the Korea Food and Drug Administration on the quantity of items thereof. <Newly Inserted by Act No. 4852, Dec. 31, 1994; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(3) An importer shall provide necessary facilities in conformity with the standards of installation as prescribed by the Presidential Decree. <Amended by Act No. 6153, Jan. 12, 2000>

(4) The provisions of [Articles 26](#) (6) through (8), [26-2](#), [26-3](#), [29](#) through [31](#) and

[68](#) shall apply mutatis mutandis to medicines, etc. imported or an importer thereof under the provisions of paragraph (1) and their importers. In this case, the "manufacture" or the "production" shall be deemed the "import" and the "manufacturer" shall be deemed the "importer". <Amended by Act No. 6153, Jan. 12, 2000>

(5) In granting a license for import items of medicine, etc. as referred to in paragraph (1), the matters necessary for the object, standards, condition, control, etc. of the license, shall be determined by the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>
[This Article Wholly Amended by Act No. 4486, Dec. 31, 1991]

Article 34-2 (International Trade, etc. in Endangered Species of Wild Fauna and Flora)

(1) Any person who desires to export, import, or carry into Korea by sea, medicines of processed goods of animals and plants as prescribed by the Convention on International Trade in Endangered Species of Wild Fauna and Flora, shall obtain permission from the Commissioner of the Korea Food and Drug Administration under the conditions as prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(2) No person shall commit any of the following acts with respect to the horns of rhinoceroses or the bones of tigers, which are processed goods using wild animals of endangered species: <Newly Inserted by Act No. 4852, Dec. 31, 1994>

1.The act of importing or selling the horns of rhinoceros or the bones of tigers, or the storing or displaying of them with the intention of selling;

2.The act of manufacturing or preparing medicines using the horns of rhinoceros or bones of tigers; and

3.The act of selling any medicines manufactured or prepared using the horns of rhinoceros or the bones of tigers, or the storing or displaying of them with the intention of selling.

[This Article Newly Inserted by Act No. 4731, Jan. 7, 1994]

SECTION 3 Sales of Medicines, etc.

Article 35 (License for Sales of Medicines)

(1) No person other than those who have opened their pharmacies (including pharmacists or herb-pharmacists working for such pharmacies; hereafter the same in [Articles 38](#), [39](#) and [41](#) shall apply) shall sell medicines, etc., or acquire medicines, etc. for the purpose of selling: Provided, That the same shall not apply to the case where the manufacturer of medicines or the importer of medicines sells his medicines to a person who is capable of manufacturing or selling medicines which such manufacturer makes and such importer imports in accordance with the provisions of this Act. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 6153, Jan. 12, 2000>

(2) Notwithstanding the provisions of paragraph (1), a person who has obtained from the Special Metropolitan City Mayor, Metropolitan City Mayor or Do governor a license for herb druggist or for wholesaler of medicines, under the Korea Rare Medicines Center established pursuant to [Article 72-12](#) and the Ordinance of the Ministry of Health and Welfare to sell medicines, even if he is not a pharmacist. <Amended by Act No. 1910, Mar. 3, 1967; Act No. 2279, Jan. 13, 1971; Act No. 3825, May 10, 1986; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 6511, Aug. 14, 2001>

(3) If a herb druggist or wholesaler of medicines desires to change matters of license, he shall obtain permission from the Special Metropolitan City Mayor, Metropolitan City Mayor or Do governor in accordance with the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 1910, Mar. 3, 1967; Act No. 2279, Jan. 13, 1971; Act No. 3825, May 10, 1986; Act No. 4486, Dec. 31,

1991; Act No. 5454, Dec. 13, 1997>

Article 36 (Sales of Medicines)

(1) The sales business of medicines under [Article 35](#) (2) shall be as follows:
<Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 3825, May 10, 1986; Act No. 4486, Dec. 31, 1991>

1. Herb druggist; and

2. Wholesaler of medicines.

(2) A herb druggist may, upon request of patients, mix and sell medicines according to the prescriptions, listed in the accepted herb medicine book or prescription of herb doctors. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 3825, May 10, 1986>

Article 37 (Criteria for Granting License for Sale of Medicines)

(1) A distributor of medicines as referred to in [Article 36](#) (hereinafter referred to as the "medicine distributor") shall install facilities suitable to the criteria as prescribed by the Presidential Decree. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991>

(2) A herb druggist's license shall be granted only to those who have passed the examination for herb druggists as prescribed by the Presidential Decree, and will be limited to certain areas as determined by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 3825, May 10, 1986; Act No. 5454, Dec. 13, 1997>

(3) Wholesalers of medicines shall employ pharmacists to administer affairs concerning medicines, and in the case of herb drugs wholesale, the wholesaler

shall employ a pharmacist, herb pharmacist, herb druggist or a person who has studied the subjects connected to herb drugs, and graduated from, a college accredited by the Minister of Health and Welfare, to manage such affairs: Provided, That this shall not apply to the case where the wholesaler of medicines is himself a pharmacist and manages the affairs concerned, or in the case of the herb drugs wholesale, the wholesaler is himself a pharmacist, herb pharmacist, herb druggist, or a person who has studied the subjects connected to herb drugs, and graduated from a college accredited by the Minister of Health and Welfare, and manages such affairs. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

(4) No license for a herb druggist or for a wholesaler of medicines shall be granted to persons falling under any of the following subparagraphs: <Amended by Act No. 2279, Jan. 13, 1971; Act No. 3825, May 10, 1986; Act No. 4486, Dec. 31, 1991; Act No. 6511, Aug. 14, 2001>

1.A person who falls under any of subparagraphs of [Article 4](#) (1);

2.A person whose license was cancelled, and for whom one year has yet to elapse from the date of the said cancellation under [Article 69](#);

3.Deleted; and <by Act No. 6153, Jan. 12, 2000>

4.A person who has established a medical institution, including officers and employees working for such medical institution.

(5) Necessary matters concerning standards for licensing the business of selling medicines, conditions and management with respect to such business shall be prescribed by the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 6153, Jan. 12, 2000>
[This Article Wholly Amended by Act No. 1910, Mar. 3, 1967]

Article 38 (Order of Sale of Medicines)

A pharmacy owner, manufacturer, importer or distributor of medicines, and

others licensed to sell medicines, pursuant to the provisions of this Act, shall abide by the matters necessary for the establishment of a circulation system and the maintenance of an order of sale of medicines, etc., under the conditions as prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>
[This Article Wholly Amended by Act No. 1694, Apr. 3, 1965]

Article 39 (Ban on Opening and Selling)

No person shall sell medicines, etc. with their container or package opened, which are stored in a container or package sealed by a manufacturer or an importer under [Article 57](#): Provided, That the same shall not apply to the case falling under each of the following subparagraphs: <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

1. Where a pharmacy operator prepares and sells medicines according to prescriptions made by a doctor, dentist or herb doctor, or pursuant to the provisions of the proviso of [Article 21](#) (4) and (7) or the provisions of [Article 4 of the Addenda](#) of the [Pharmaceutical Affairs Act](#) amended by Act No. 4731;

2. Deleted; <by Act No. 6272, Aug. 5, 2000>

3. Where a pharmacy operator sells prepared herb-medicines after opening them; and

4. Where a person designated by the Minister of Health and Welfare opens and sells medicines falling within the scope prescribed by the Ordinance of the Ministry of Health and Welfare.
[This Article Wholly Amended by Act No. 2279, Jan. 13, 1971]

Article 40 (Restrictions on Sale Items by Medicine Distributor)

No medicine distributor, shall sell patent medicines and such medicines other

than those as designated by the Minister of Health and Welfare, nor shall they store or display them for purposes of sale. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

Article 41 (Sales of Medicines)

(1) No pharmacy owner or medicine distributor shall sell medicines at places other than his pharmacy or shop: Provided, That the same shall not apply to the case where approval is obtained from the head of Shi/Kun/Ku. <Amended by Act No. 6153, Jan. 12, 2000>

(2) No pharmacy owner shall sell any special medicine, except in case of preparing it, according to the prescription of a doctor or dentist: Provided, That the same shall not apply to a case where such medicines are sold to any person who has established a veterinary hospital in accordance with the Veterinarians Act under the conditions as prescribed by the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 4731, Jan. 7, 1994; Act No. 6511, Aug. 14, 2001>

(3) Any pharmacy operator may sell any general medicine without prescriptions given by a doctor or herb doctor. <Newly Inserted by Act No. 6153, Jan. 12, 2000>

(4) Any person who has established a pharmacy may, if it is deemed necessary when he sells general medicines, offer guidance on taking such general medicines. <Newly Inserted by Act No. 6511, Aug. 14, 2001>

Article 42 (Report on Business of Selling Medical Appliances)

(1) When a person other than a pharmacy owner or medicine distributor desires to carry on the business of selling medical appliances, he shall file a report thereof with the head of Shi/Kun/Ku as prescribed by the Ordinance of the

Ministry of Health and Welfare. The same shall apply to the case where he intends to change any reported matters. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

(2) Notwithstanding the provisions of paragraph (1), if a manufacturer or importer of medical appliances sells, medical appliances manufactured or imported by him to a manufacturer, dealer of medical appliances, pharmacy owner, or medicine distributor, he shall be exceptionally permitted to do so. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994>

(3) Deleted. <by Act No. 6153, Jan. 12, 2000>

CHAPTER VI HANDLING OF MEDICINES, ETC.

SECTION 1 Criteria and Approval

Article 43 (Korean Pharmacopoeia)

(1) In order to insure the methods of manufacturing, nature, efficacy, quality and storing method of medicines, the Commissioner of the Korea Food and Drug Administration shall enact a Korean Pharmacopoeia through the deliberation of the Central Pharmaceutical Affairs Council, and shall announce it publicly. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5982, May 24, 1999>

(2) The Korean Pharmacopoeia shall be divided into Parts I and II. Raw medicines that are frequently used and the basic preparation of medicines, shall be listed in Part I, and the mixed preparation of medicines and medicines not listed in Part I, shall be listed in Part II.

Article 44 (Criteria for Medicines, etc.)

(1) With regard to antibiotic substances and its preparations, biological preparations, and medicines which are not listed in the Korean Pharmacopoeia, shall require special attention from the public health and sanitary point of view; the Commissioner of the Korea Food and Drug Administration may, after consultation with the Central Pharmaceutical Affairs Council, determine the method of manufacturing, nature, efficacy, quality and storing methods of medicines, and other necessary criteria. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 5982, May 24, 1999>

(2) When the Commissioner of the Korea Food and Drug Administration deems it necessary for prevention of any danger or harm to the public health and sanitation, they may, after consultation with the Central Pharmaceutical Affairs Council, determine the methods of manufacturing, nature, efficacy, quality and storing of non-pharmaceutical drugs, medical appliances and other necessary criteria thereof. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 5982, May 24, 1999; Act No. 6153, Jan. 12, 2000>

Article 45 (State-authorized Medicines)

(1) Medicines of those falling under any of the following subparagraphs, determined by the Ordinance of the Ministry of Health and Welfare (hereafter referred to as the "State-authorized medicines"), are not passed by inspection of the Commissioner of the Korea Food and Drug Administration, shall not be sold or displayed, kept or stored for sales purposes: <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>

1.Deleted; <by Act No. 4731, Jan. 7, 1994>

2.Biologically prepared medicines;

3.Medicines which are liable to be changed or spoiled in quality; and

4.Other preparation of medicines deemed necessary by the Commissioner of the Korea Food and Drug Administration.

(2) The approval of State-authorized medicines under paragraph (1) and other necessary matters, shall be determined by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

Article 45-2 (Radioactive Medicines)

The Commissioner of the Korea Food and Drug Administration may determine the necessary matters concerning manufacture and imports of radioactive medicines with consultation with the Minister of Science and Technology. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>
[This Article Newly Inserted by Act No. 2279, Jan. 13, 1971]

Article 45-3 (Toxic and Habit-forming Medicines)

The necessary matters concerning the manufacturing and management of medicines that might affect the human body and thus cause toxicosis or habituation, shall be determined by a separate Act. [This Article Wholly Amended by Act No. 2279, Jan. 13, 1971]

SECTION 2 Deleted.

Articles 46 through 49

Deleted. <by Act No. 6153, Jan. 12, 2000>

SECTION 3 Handling of Medicines

Article 50 (Matters to be Stated on Containers)

(1) The following matters shall be stated on the containers or packages of medicines, except such containers or wrappers as provided for by the Ordinance of the Ministry of Health and Welfare: <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

1.Firm name and address of manufacturer or importer;

2.Name (as for medicines listed in the Korean Pharmacopoeia, the names provided in the Pharmacopoeia, and as for the other medicines, the general names);

3.Manufacturing number and effective period or use time-limit;

4.Weight, capacity, or number of Articles;

5.Matters to be entered in containers and packages as prescribed by the Korean Pharmacopoeia;

6.As for the medicines whose standards are determined under [Article 44](#) (1), storing methods of such medicines and other matters to be stated on the containers or packages as determined in the standards;

7.As for the medicines not listed in the Korean Pharmacopoeia, names of effective ingredients (if there are general names, such names shall be stated) and quantity (if effective ingredients are not clear, the essence thereof and outline of manufacturing methods shall be stated);

8.Deleted; <by Act No. 6153, Jan. 12, 2000>

9.Deleted; <by Act No. 4486, Dec. 31, 1991>

10.As for special medicines, letters of "special or general medicines" and prices thereof;

11.Matters as provided for in subparagraphs 1 through 3 of [Article 52](#); and

12.Other matters as determined by the Ordinance of the Ministry of Health and Welfare.

(2) Deleted. <by Act No. 6153, Jan. 12, 2000>

Article 51 (Matters to be Stated on Outside Packages)

If the matters stated on an immediate container or wrapper of medicine under each subparagraph of [Article 50](#), are not seen due to an outside container or wrapper, such matters shall also be stated on the outside container or wrapper.
<Amended by Act No. 1694, Apr. 3, 1965; Act No. 4486, Dec. 31, 1991; Act No. 6153, Jan. 12, 2000>

Article 52 (Matters to be Stated on Appended Notes)

The following matters shall be stated in notes appended to medicines:
<Amended by Act No. 5454, Dec. 13, 1997>

1.Directions, doses, and other precautions necessary for using or handling of the medicines concerned;

2.As for the medicines listed in the Korean Pharmacopoeia, matters to be stated in notes appended to the medicines, containers, or wrappers thereof as provided for in the Korean Pharmacopoeia;

3.As for the medicines whose standards are determined under [Article 44](#) (1), matters to be stated in notes appended to the medicines, containers, or wrappers thereof, as provided for in the standards; and

4. Other matters as determined by the Ordinance of the Ministry of Health and Welfare.

Article 53 (Precautions in Statement)

The matters as provided in each subparagraph of [Article 50](#) shall be stated on places which are more easily seen than other letters, Articles, pictures or designs, and on such matters stated precisely in easy and understandable terms, in accordance with the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

Article 54 (Matters not to be Stated)

False or misunderstandable matters concerning medicines concerned, efficacy or effect which is not licensed or reported under [Article 26](#) (1) or [33](#) (1), or direction, dose or period of internal use which are dangerous to public health and sanitation, shall not be stated in a note appended to medicines, containers or packages of them. <Amended by Act No. 1694, Apr. 3, 1965>

Article 55 (Ban of Sales, etc.)

(1) Medicines violating the provisions of [Articles 50](#) through [54](#); forged medicines or medicines manufactured, prepared or imported in violation of [Articles 26](#) (1), [33](#) (1), [34](#) (1) and (3), and [34-2](#) (1) shall not be sold, stored or displayed for sales purposes. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 4852, Dec. 31, 1994>

(2) As for non-medicine items, any statement or advertisement which might lead to misunderstanding, that the said items, might have medical effect or efficacy, shall not be made on the containers, packages or appended notes, and such non-

medicine items as stated or advertised similarly to medicines shall not be sold, stored, displayed for sales purposes. <Amended by Act No. 2611, Mar. 13, 1973>

Article 56 (Ban of Manufacturing, etc.)

Medicines falling under any of the following subparagraphs shall not be sold, manufactured, imported, stored, nor displayed for sales purposes: <Amended by Act No. 1964, Apr. 3, 1965; Act No. 2611, Mar. 13, 1973; Act No. 2861, Dec. 31, 1975; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

1. Medicines which are listed in the Korean Pharmacopoeia, but whose nature, efficacy or quality does not meet the standards specified in the Korean Pharmacopoeia;

2. Medicines for which license or report is obtained or made under [Articles 26](#) (1) and [33](#) (1); if their ingredients or quantities (if effective ingredients are not clear, the essence thereof or outline of manufacturing methods) are different from contents as licensed or reported;

3. Medicines whose standards are determined under [Article 44](#) (1), and which do not meet such standards;

4. Medicines all or part of which are made from unclean, or degenerated or spoiled materials;

5. Medicines which are tainted or deemed to have been tainted by germs that may cause a disease;

6. Medicines to which alien substances are mixed or adhered;

7. Medicines in which tar pigment other than those determined by the Commissioner of the Korea Food and Drug Administration are used;

8. Medicines which are manufactured under unsanitary circumstances that might

do harm to public health and sanitation, or which are manufactured at a place where the manufacturing equipment becomes unconformed to such standards as prescribed by the Presidential Decree;

9. Medicines which are deemed to cause harm to the public health and sanitation, because of unsanitary containers or wrappers;

10. Medicines whose containers or packages might make users misunderstand the method of using them; and

11. Medicines falling under [Article 69](#) (1) 4.

Article 57 (Sealing)

(1) If a manufacturer, or importer of medicines sells manufactured or imported medicines, he shall seal the containers or wrappers of such medicines in accordance with the Ordinance of the Ministry of Health and Welfare, unless he sells them to manufacturers of medicines. <Amended by Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

(2) Deleted. <by Act No. 6153, Jan. 12, 2000>

SECTION 4 Non-pharmaceutical Drugs

Article 58 (Matters to be Stated on Containers, etc.)

The following matters shall be stated on the containers, wrappers, or appended notes (only in the case the appended note is required) of non-pharmaceutical drugs: Provided, That matters other than the name of commodity, firm name and price, may be omitted on the containers or wrappers designated by the Ordinance of the Ministry of Health and Welfare: <Amended by Act No. 2611,

Mar. 13, 1973; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 6153, Jan. 12, 2000>

1.Names of manufactured goods (excluding goods falling under [Article 2](#) (7) 1);

2.Firm name and address of manufacturer or importer;

3.Capacity or weight (capacity, weight or number with respect to goods falling under [Article 2](#) (7) 1);

4.Manufacturing number and date;

5.Price;

6.Names of major ingredients (excluding ones falling under [Article 2](#) (7) 1);

7.For products the standards determined under [Article 44](#) (2), the storing method thereof, and other matters prescribed on the container or wrapper by such standards;

8.For non-pharmaceutical drugs, the letters "non-pharmaceutical drugs"; and

9.Other matters as determined by the Ordinance of the Ministry of Health and Welfare.

[This Article Wholly Amended by Act No. 2279, Jan. 13, 1971]

Article 59 (Mutatis Mutandis Application)

The provisions of [Articles 54](#) through [57](#) ([Articles 54](#) through [56](#) in case of goods falling under [Article 2](#) (7) 1) shall apply mutatis mutandis to non-pharmaceutical drugs. In this case, "medicines" shall be deemed "non-pharmaceutical drugs".

[This Article Wholly Amended by Act No. 6153, Jan. 12, 2000]

SECTION 5 Medical Appliances

Article 60 (Matters to be Stated on Containers, etc.)

The following matters shall be stated on containers or packages of medical appliances, except such containers or packages as determined by the Ordinance of the Ministry of Health and Welfare: <Amended by Act No. 2611, Mar. 13, 1973; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>

- 1.Firm name and address of manufacturer or importer;
- 2.Manufacturing number, date, weight, capacity, and number of articles with respect to the medical appliances and sanitary supplies designated by the Commissioner of the Korea Food and Drug Administration; and
- 3.Other matters as determined by the Ordinance of the Ministry of Health and Welfare.

Article 61 (Application)

The provisions of [Articles 54](#) through [56](#) shall apply mutatis mutandis to medical appliances. In this case, "non-pharmaceutical drugs" shall be deemed "medical appliances". <Amended by Act No. 2861, Dec. 31, 1975; Act No. 6153, Jan. 12, 2000>

[This Article Wholly Amended by Act No. 2279, Jan. 13, 1971]

SECTION 6 Pharmaceutical Organization

Article 62 (Organization)

(1) Manufacturers, importers or distributors of medicines, etc., may form an incorporated association in order to secure independent activities and common interests and to contribute to the improvement of the national public health. <Amended by Act No. 4486, Dec. 31, 1991>

(2) Deleted. <by Act No. 6153, Jan. 12, 2000>

SECTION 7 Advertisement of Medicines, etc.

Article 63 (Ban of Exaggerated Advertisement)

(1) No false or exaggerated advertisements concerning names, manufacturing methods, efficacy, or performance of medicines, etc. shall be made.

(2) No Article shall be used to make the people misunderstand that doctors, dentists, herb doctors, veterinarians or other persons guarantee the effect or efficacy of medicines, etc. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 3825, May 10, 1986>

(3) The effect or efficacy of medicines, etc. shall not be advertised by suggestive Articles, photographs, designs and other suggestive methods.

(4) No documents or designs which suggest induced abortion shall be used towards medicines or medical appliances.

(5) No advertisement may be made on the denominations, manufacturing methods, efficacy, or performance of medicines, etc. without obtaining the permission, or making the report, as prescribed in [Article 26](#) (1) or [34](#) (1). <Newly Inserted by Act No. 4486, Dec. 31, 1991>

(6) Necessary matters concerning the scope and other matters of advertisements of medicines, etc., shall be determined by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 1694, Apr. 3, 1965; Act

No. 5454, Dec. 13, 1997>

CHAPTER VII SUPERVISION

Article 64 (Report and Inspection, etc.)

(1) The Minister of Health and Welfare, the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor or Do governor, or the head of Shi/Kun/Ku may, if deemed necessary, order persons who have established pharmacies or medical institutions, manufacturers, importers or distributors of medicines, etc., and other persons handling medicines, etc., to submit necessary reports; or cause pertinent public officials to enter and inspect pharmacies, medical institutions, factories, warehouses, shops, or offices that manufacture, store or handle medicines, etc., or other places where medicines, etc., are handled for business, and inspect the facilities concerned, account books, documents or other Articles, or raise necessary questions to the persons concerned; or may take Articles necessary for quality inspection of articles, medicines, etc. that are suspicious of falling under [Article 65](#) (1), only in the minimum quantity required for testing. <Amended by Act No. 3441, Apr. 13, 1981; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(2) In the case as referred to in paragraph (1), the pertinent public officials shall show certificates indicating such authority to the persons concerned. <Amended by Act No. 4486, Dec. 31, 1991>

(3) The authority and the scope of duties of pertinent public officials and other necessary matters in the case of paragraph (2) shall be determined by the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 2279, Jan 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

Article 64-2 (Order to Commence Business, etc.)

(1) If it is deemed that medicine manufacturers, pharmacy owners, or medicine distributors bringing any remarkable impediment in the purchasing and selling of medicines through a joint suspension of medicine production and sales, a collective business suspension, or a discontinuance, the Minister of Health and Welfare, the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor or Do governor, or the head of the Shi/Kun/Ku may order such medicine manufacturers, pharmacy owners, or medicine distributors to commence the production or business of medicines. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(2) Medicine manufacturers, pharmacy owners, or medicine distributors may not refuse the order as referred to in paragraph (1), without any justifiable reason.
[This Article Newly Inserted by Act No. 4731, Jan. 7, 1994]

Article 65 (Order, etc. of Abolition)

(1) The Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor, Do governor, or a head of the Shi/Kun/Ku may issue orders abolishing or disposing of medicines, etc., that have been sold, stored, displayed, manufactured or imported in violation of the provisions of [Articles 45](#) (1) (including cases of applications with necessary modifications in [Articles 59](#) and [61](#)), and [56](#) (including cases of applications with necessary modifications in [Articles 59](#) and [61](#)); or may order the abolishment or disposal of raw materials or materials of bad medicines, etc., through methods of preventing harm to the public sanitation, to persons who have established pharmacies or medical institutions, manufacturers, importers or distributors of medicines, etc., or other persons who handle medicines, etc., for business.
<Amended by Act No. 2279, Jan. 13, 1971; Act No. 3441, Apr. 13, 1981; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>

(2) When persons who have received an order as referred to in paragraph (1), do not carry out such orders, or when there are urgencies for the national public health, the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor, Do governor, or the head of the Shi/Kun/Ku may cause pertinent public officials to abolish the Articles concerned or take other necessary measures. <Amended by Act No. 3441, Apr. 13, 1981; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(3) The provisions of [Article 64](#) (2) shall apply mutatis mutandis to cases as referred to in paragraph (1). <Amended by Act No. 4486, Dec. 31, 1991>

Article 66 (Order of Inspection)

If it is deemed necessary, the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor, or Do governor may order manufacturers or importers of medicines, etc., to undergo inspections of manufactured or imported medicines, etc. by the persons designated by the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor, or Do governor. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

Article 67 (Repair Order)

If a facility does not meet the facility standards as prescribed in [Articles 16](#) (3), [26](#) (2), [34](#) (3) or [37](#) (1) or if such facility becomes obsolete or spoiled, and medicines, etc. are manufactured by such a facility, and thus manufacture medicines, etc. provided under any of subparagraphs of [Article 56](#) (including cases of applications with necessary modifications in [Articles 59](#) and [61](#)), the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor, Do governor, or the head of the Shi/Kun/Ku may order the pertinent persons having established pharmacies, manufacturers, importers or distributors of medicines, etc., to repair the facility

or order them not to use all or part of the facility, until repair has been completed. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>

Article 68 (Order to Change Manager, etc.)

If a manager of a manufacturing industry of medicines, etc. or a manager of a pharmacy has committed acts in violation of this Act or orders issued pursuant to this Act; or if the manager is deemed as unsuited, as to the managing a manufacturing industry of medicines, etc., the Commissioner of the Korea Food and Drug Administration may order the manufacturer to change the manager, and as to the manager of a pharmacy, the head of a Shi/Kun/Ku may order the pharmacy owner to change the manager. <Amended by Act No. 3441, Apr. 13, 1981; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

Article 69 (Cancellation of License and Suspension of Business)

(1) If a manufacturer or importer of medicines, etc., or a person who has established a pharmacy, a distributor of medicines or medical appliances, falls under any of the following subparagraphs, the Commissioner of the Korea Food and Drug Administration may, as for the manufacturer or importer of medicines, etc., and the Special Metropolitan City Mayor, Metropolitan City Mayor, Do governor, or the head of the Shi/Kun/Ku, as for a person who has established a pharmacy, or a distributor of medicines or medical appliances, may cancel license, approval and registration or shut down factory (limited to the types of business for which reports have been filed pursuant to the provisions of [Article 26](#) (1)), or order the prohibition to manufacture or import of medicines, etc., or may order suspension of all or part of the business concerned, specifying a certain period: Provided, That in the case as referred to in subparagraph 4, if there is no fault on the part of the business person, and if the purpose of license or report could be served by changing the ingredients or prescriptions of

medicines concerned, only such change may be ordered: <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 2611, Mar. 13, 1973; Act No. 3411, Apr. 13, 1981; Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000; Act No. 6685, Mar. 30, 2002>

1.If he falls under [Article 4](#) (1) 2, 4 through 6;

2.If it turns out that there are matters falling under any of subparagraphs of [Article 16](#) (5), or [26](#) (5) 2;

3.If he has violated this Act or orders issued under this Act;

4.If he manufactures, imports or sells medicines, etc. which are harmful or may do harm to the national public health, and medicines, etc. which are regarded as having no effect or efficacy;

5.Deleted; and <by Act No. 4486, Dec. 31, 1991>

6.If a pharmacy owner is subjected to a disposition of suspending a qualification of pharmacist or herb pharmacist under [Article 71](#) (2).

(2) The same shall apply to the case where the facilities of the persons, as referred to in paragraph (1), do not meet the facility standards as prescribed in [Article 16](#) (3), [26](#) (2), [34](#) (3) or [37](#) (1). <Amended by Act No. 1694, Apr. 3, 1965; Act No. 4486, Dec. 31, 1991; Act No. 6153, Jan. 12, 2000>

(3) The criteria for an administrative disposition as referred to in paragraphs (1) and (2) shall be determined by the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997>

Article 69-2 (Hearings)

The Minister of Health and Welfare, Special Metropolitan City Mayor,

Metropolitan City Mayor, Do governor, or the head of Shi/Kun/Ku who desires to make a disposition falling under any of the following subparagraphs, shall hold a hearing: <Amended by Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000>

1.Cancellation of license, approval and registration, or the shutdown of a factory, or giving orders to prohibit manufacturing or importing of medicines under [Article 69](#); or

2.Cancellation of the license under [Article 71](#) (1) or (2).
[This Article Wholly Amended by Act No. 5453, Dec. 13, 1997]

Article 70 (Pharmaceutical Inspector)

(1) Pharmaceutical inspectors shall be employed under the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City, Dos, Shis, Kuns and Kus (limited to the Special Metropolitan City and Metropolitan Cities) in order to have them perform the duties of pertinent public officials under [Articles 64](#) (1) and [65](#) (2). <Amended by Act No. 3441, Apr. 13, 1981; Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(2) The pharmaceutical inspectors shall be appointed by the Commissioner of the Korea Food and Drug Administration, Special Metropolitan City Mayor, Metropolitan City Mayor, Do governor, or heads of Shis/Kuns/Kus from among public officials belonging to the Korea Food and Drug Administration, the Special Metropolitan City, Metropolitan Cities, and Shis/Kuns/Kus. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(3) Necessary matters concerning qualifications, appointment, etc. of the pharmaceutical inspectors shall be determined by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 1694, Apr. 3, 1965; Act No. 5454, Dec. 13, 1997>

Article 71 (Cancellation, etc. of Pharmacist's or Herb Pharmacist's License)

(1) If a pharmacist or herb pharmacist falls under any of [Article 4](#) (1) 2 and 4 through 6, the Minister of Health and Welfare shall cancel his license. <Amended by Act No. 6685, Mar. 30, 2002>

(2) If a pharmacist or herb pharmacist falls under any of the following subparagraphs, the Minister of Health and Welfare may cancel his license or order the suspension of qualification of a pharmacist or herb pharmacist, with fixing the relevant period within the limit of one year: <Amended by Act No. 6685, Mar. 30, 2002>

1. When he violates the Acts and subordinate statutes concerning the pharmaceutical affairs or violates the criteria for ethics as provided by the Ordinance of the Ministry of Health and Welfare; and

2. When he forges or alters the relevant documents or demands falsely the drug expenses by falsity and other illegal means.

(3) Even though the pharmacist's or herb pharmacist's license is cancelled under paragraphs (1) and (2), if the cause of the cancellation expires, the Minister of Health and Welfare may re-grant the license under the conditions as prescribed by the Ordinance of the Ministry of Health and Welfare. <Newly Inserted by Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

Article 71-2 (Renewal of License, Permit and Registration)

Any person who has obtained a license for pharmacist or herb pharmacist, a registration for establishing a pharmacy, a permit to manufacture medicines, etc., or a permit for distributing of medicines, shall renew his license, permit, or registration certificate as determined by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997>

[This Article Newly Inserted by Act No. 1694, Apr. 3, 1965]

Article 71-3 (Disposition of Penalty)

(1) If a manufacturer and an importer of medicines, etc., pharmacy owner or medicine distributor is to be subject to a disposition of business suspension under [Article 69](#), the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayors, Do governors or heads of Shis/Kuns/Kus, may impose the penalty not exceeding fifty million won in lieu of such disposition, under the conditions as prescribed by the Presidential Decree. In this case, if any pharmacy owner who has been subjected to a disposition of suspending a qualification of a pharmacist or herb pharmacist under [Article 71](#) (2) 2 comes to be subject to a disposition of suspending services under [Article 69](#) (1) 6, the penalty replacing it shall not be imposed in excess of 3 times. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000; Act No. 6685, Mar. 30, 2002>

(2) The categories of offenses against which penalty as referred to in paragraph (1) is imposed, the amount of penalty according to the degree thereof, and other necessary matters, shall be determined by the Presidential Decree.

(3) If the penalty as referred to in paragraph (1) is not paid within the prescribed period state, the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayors, Do governors, or the heads of Shis/Kuns/Kus shall collect it according to examples of disposition of national or local taxes in arrears. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(4) The amount collected as penalty under paragraphs (1) and (3) shall be reverted to the State or local government to which the collecting agency belongs.

[This Article Newly Inserted by Act No. 4486, Dec. 31, 1991]

Article 72 (Fees)

Any person who desires to obtain a license, a re-issuance of license, a permit, registration, an inspection for approval, reinspection, to sell reproduced medicines, to determine standards of new products, or to apply for examinations under this Act, shall pay fees under the conditions as prescribed by the Minister of Health and Welfare. Any person who desires: to modify the matters of a license, a permission, or registration, shall also be subject to this provision. <Amended by Act No. 5454, Dec. 13, 1997>
[This Article Wholly Amended by Act No. 2279, Jan. 13, 1971]

CHAPTER VIII SUPPLEMENTARY PROVISIONS

Article 72-2 (Subsidy from National Treasury)

The Minister of Health and Welfare and the Commissioner of the Korea Food and Drug Administration may provide research funds to manufacturers of medicines, etc. to institutions, etc. that contribute to the national public health by carrying out safety research on medicines, etc. under the conditions as may be prescribed by the Presidential Decree. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5982, May 24, 1999>
[This Article Newly Inserted by Act No. 2279, Jan. 13, 1971]

Articles 72-3 and 72-4

Deleted. <by Act No. 4486, Dec. 31, 1991>

Article 72-5 (Delegation of Authority)

(1) Part of the authority of the Minister of Health and Welfare and the

Commissioner of the Korea Food and Drug Administration under this Act may be delegated to the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor, Do governor, or director of the Korea Center for Disease Control and Prevention; part of the authority of the Special Metropolitan City Mayor, Metropolitan City Mayor, or Do governor, to the head of Shi/Kun/Ku or the head of a health center; and part of the authority of the head of Shi/Kun/Ku, to the head of a health center under the conditions as prescribed by the Presidential Decree. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998; Act No. 6153, Jan. 12, 2000; Act No. 7148, Jan. 29, 2004>

(2) The Minister of Health and Welfare and the Commissioner of the Korea Food and Drug Administration may entrust the organization as prescribed in [Article 62](#) (1) with part of pharmaceutical affairs under this Act, under the conditions as prescribed by the Presidential Decree. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>
[This Article Newly Inserted by Act No. 4486, Dec. 31, 1991]

Article 72-6 (Special Cases on Animal's Medicines, etc.)

(1) Medicines, non-pharmaceutical drugs or medical appliances for the purpose of which is to be used exclusively for animals, under the jurisdiction of the Commissioner of the Korea Food and Drug Administration, under this Act, shall be matters under the jurisdiction of the Minister of Agriculture and Forestry, and the term "Commissioner of the Korea Food and Drug Administration" in the corresponding provisions of this Act shall be considered as the term "Minister of Agriculture and Forestry", and the term "Ordinance of the Ministry of Health and Welfare", shall be considered as the term "Ordinance of the Ministry of Agriculture and Forestry". In this case, when the Minister of Agriculture and Forestry issues Ordinances of the Ministry of Agriculture and Forestry, he shall consult with the Commissioner of the Korea Food and Drug Administration. <Amended by Act No. 5153, Aug. 8, 1996; Act No. 5454, Dec. 13, 1997; Act No. 5982, May 24, 1999; Act No. 6153, Jan. 12, 2000>

(2) With respect to medicines for animals used for the diagnosis and treatment or prevention of animal's diseases, and designated as ones that may stay in an animal's body and inflict danger or injury to human health, the Minister of Agriculture and Forestry may determine the standards for use of animal medicines, such as animals for which such medicines are used, its use, dosage, the period banning its use, etc. <Amended by Act No. 5153, Aug. 8, 1996>

(3) Any person who desires to use animal medicines, the using standards of which are determined under paragraph (2), shall observe the standards: Provided, That this shall not apply to the case where he uses them pursuant to the diagnosis or prescription of a veterinarian or a certified marine disease manager. <Amended by Act No. 6611, Jan. 14, 2002>

(4) Notwithstanding the provisions of [Article 35](#), the person who has established a veterinary hospital as prescribed by the Veterinarians Act, may sell medicines used for the treatment of animals to any person who rears them or purchase medicines from any person who has established a pharmacy for the purpose of treating animals under the proviso of [Article 41](#) (2). In this case, the person who has established the veterinary hospital shall make and keep sale and purchase records under the conditions as prescribed by the Ordinance of the Ministry of Agriculture and Forestry. <Newly Inserted by Act No. 4731, Jan. 7, 1994; Act No. 6511, Aug. 14, 2001>

(5) Notwithstanding the provisions of [Article 35](#), the person who has established a marine disease management office as prescribed by the Fish Farming Development Act may sell medicines used for the treatment of marine life to any person who cultivates such marine life. <Newly Inserted by Act No. 6611, Jan. 14, 2002>
[This Article Newly Inserted by Act No. 4486, Dec. 31, 1991]

Article 72-7 (Projects for Relief of Injury from Side Effects of Medicines)

(1) Any organization composed of manufacturers or importers of medicines shall carry out research projects to support the improvement of safety of medicines

and the development of new medicines, so as to relieve any injury caused by the side effects of medicines. <Amended by Act No. 4980, Dec. 6, 1995>

(2) Manufacturers or importers of medicines shall bear the expenses necessary for the projects as referred to in paragraph (1). <Amended by Act No. 4980, Dec. 6, 1995>

(3) For the purposes of the projects as referred to in paragraph (1), the Government may give a subsidy within the limit of the budget. <Amended by Act No. 4980, Dec. 6, 1995>

(4) Matters necessary for the projects as referred to in paragraph (1) shall be prescribed by the Ordinance of the Ministry of Health and Welfare. <Amended by Act No. 4980, Dec. 6, 1995; Act No. 5454, Dec. 13, 1997>
[This Article Newly Inserted by Act No. 4486, Dec. 31, 1991]

Article 72-8 (Ban on Secret Leakage)

Any pharmacist or herb-pharmacist shall not leak other persons' secrets which he has learned while preparing and selling medicines except as otherwise provided in this Act or other Acts and subordinate statutes.
[This Article Newly Inserted by Act No. 5969, Mar. 31, 1999]

Article 72-9 (Protection of Material Furnished)

(1) With respect to data furnished pursuant to the provisions of [Articles 26](#) through [26-3](#) or [Article 34](#), the Commissioner of the Korea Food and Drug Administration, when a person who has furnished such data files a written request for its protection, shall not make such data public: Provided, That the same shall not apply to the case where the Commissioner of the Korea Food and Drug Administration deems it necessary to disclose such data for public interest.

(2) Any person who has read or examined furnished data for which a written

request is filed for its protection under the provisions of paragraph (1) shall not make public the contents of such data that he has learned as a result of such reading and examination.

[This Article Newly Inserted by Act No. 6153, Jan. 12, 2000]

Article 72-10 (Succession of Status of Manufacturer)

(1) When a manufacturer of medicines, etc. or a wholesaler of medicines, etc. (hereafter in this Article referred to as "manufacturer, etc.") dies or transfers his business, or a merger of manufacturers, etc. who are juristic persons takes place, a transferee, a corporation surviving such merger or a corporation incorporated by such merger shall succeed the status of the manufacturer, etc.: Provided, That the same shall not apply to the case where such transferee, such corporation surviving the merger or such corporation incorporated by the merger falls under any case of the following subparagraphs:

1. Where a person who intends to succeed the status of the manufacturer, etc. falls under each subparagraph of [Article 26](#) (5); and

2. Where a person who intends to succeed the status of the wholesaler of medicines falls under each subparagraph of [Article 37](#) (4).

(2) Where a successor to the status of the manufacturer, etc. under the provisions of paragraph (1) falls under each subparagraph of paragraph (1), he shall transfer such status of the manufacturer, etc. to another person within 6 months from the date of succession.

(3) When a manufacturer of medicines, etc. or an importer of medicines, etc. transfers his business of manufacturing or importing medicines, etc. for which permission has been obtained or a report has been filed by manufacture and import items pursuant to the provisions of [Article 26](#) (1) or [34](#) (1), another manufacturer or importer who takes over such business shall succeed the status of the former manufacturer or importer with respect to permission and report by items.

[This Article Newly Inserted by Act No. 6153, Jan. 12, 2000]

Article 72-11 (Bounty)

A bounty may be paid to any person who has whistle-blown or tipped off the fact of violating the provisions of [Articles 21](#), [22](#) (1) and (2), [23](#) (1), [23-2](#) (1) and (3) and [41](#) (1) and (2) to any supervisory agency or any investigative agency under the conditions as prescribed by the Presidential Decree.

[This Article Newly Inserted by Act No. 6511, Aug. 14, 2001]

Article 72-12 (Creation of Korea Orphan Drug Center)

(1) The Korea Orphan Drug Center (hereinafter referred to as the "Center") shall be created to perform the work of furnishing information with respect to medicines which have the rare subject of their application and are required to be urgently imported because of the lack of their alternative medicines and other medicines used to treat rare diseases (hereinafter referred to as "rare medicines, etc.") and supplying (including the work of prescription and medication; hereinafter the same shall apply) such medicines. <Amended by Act No. 6982, Sep. 29, 2003>

(2) The Center shall be a corporation.

(3) The provisions governing the juridical foundation of the [Civil Act](#) shall apply mutatis mutandis to the Center except as otherwise provided for in this Act.

(4) Necessary matters concerning the operation, etc. of the Center created under paragraph (1) shall be prescribed by the Presidential Decree.
[This Article Newly Inserted by Act No. 6511, Aug. 14, 2001]

Article 72-13 (Work of Center)

(1) The Center shall perform the work falling under each of the following subparagraphs: Provided, That in the case of execution of businesses of subparagraph 2, the head of Center shall install a dispensary in the Center, designate a pharmacist among the staff and let him take charge of the work: <Amended by Act No. 6982, Sep. 29, 2003>

1.The work of gathering information pertaining to the rare medicines, etc. and building a computer network;

2.The work of supplying the rare medicines, etc.; and

3.Other work associated with the rare medicines, etc., which is approved by the Commissioner of the Korea Food and Drug Administration.

(2) The Commissioner of the Korea Food and Drug Administration may, when he deems it necessary for the Center to perform the work specified in paragraph (1), provide the Center with financial assistance, etc. [This Article Newly Inserted by Act No. 6511, Aug. 14, 2001]

Article 73

Deleted. <by Act No. 6153, Jan. 12, 2000>

CHAPTER IX PENAL PROVISIONS

Article 74 (Penal Provisions)

(1) Any person who falls under any of the following subparagraphs, shall be punished by imprisonment for not more than five years, or a fine not exceeding twenty million won: <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 4852, Dec. 31, 1994>

1.A person who has violated the provisions of [Articles 5](#) (3), [16](#) (1), [21](#) (1), [26](#) (1), [34](#) (1), [34-2](#), [35](#) (1), [45](#) (1) and [55](#) (including the case where it is applicable mutatis mutandis in [Articles 59](#) and [61](#)); and

2.A person who has sold medicines without obtaining a permit under [Article 35](#) (2).

(2) The punishments as referred to in paragraph (1) may be concurrently imposed. <Amended by Act No. 4486, Dec. 31, 1991>

Article 75 (Penal Provisions)

(1) Any person who falls under any of the following subparagraphs, shall be punished by imprisonment for not more than three years, or a fine not exceeding ten million won: Provided, That any person who has violated the provisions of [Article 72-8](#) may be charged only when an accusation is filed against him: <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 5959, Mar. 31, 1999; Act No. 6153, Jan. 12, 2000; Act No. 6511, Aug. 14, 2001>

1.A person who has violated the provisions of [Articles 3](#) (3), [3-2](#) (3), [22](#) (2), [26-4](#) (1), (2), (4) and (5), and [30](#) (3) (including the case where it is applied mutatis mutandis in [Article 34](#)), and [37](#) (3), the main sentence of [Article 39](#), and [Articles 40](#), [41](#) (1), [56](#) (including the case where it is applied mutatis mutandis in [Articles 59](#) and [61](#)), [64-2](#) (2), [72-8](#), and [72-9](#) (2); and

2.Deleted. <by Act No. 1694, Apr. 3, 1965>

(2) The punishments as referred to in paragraph (1) may be concurrently imposed. <Amended by Act No. 4486, Dec. 31, 1991>

Article 76 (Penal Provisions)

(1) Any person who violates the provisions of [Article 16](#) (2), [19](#) (1) and (2), [21](#) (2), (4), (5), (7) and (8), [22](#) (1), [23](#) (1) and (2), [23-2](#) (1), (3) and (4), and [29](#) (including a case where it is applicable mutatis mutandis in [Article 34](#)), [30](#) (2) (including a case where it is applicable mutatis mutandis in [Article 34](#)), [38](#), [41](#) (2), [42](#) (1), [54](#) or [63](#) shall be punished by imprisonment for not more than one year, or a fine not exceeding three million won. <Amended by Act No. 4731, Jan. 7, 1994; Act No. 4852, Dec. 31, 1994; Act No. 6153, Jan. 12, 2000; Act No. 6272, Aug. 5, 2000; Act No. 6511, Aug. 14, 2001>

(2) The punishments as referred to in paragraph (1) may be concurrently imposed. <Amended by Act No. 4486, Dec. 31, 1991>

Article 77 (Penal Provisions)

Any person who falls under any of the following subparagraphs shall be punished by a fine not exceeding two million won: Provided, That any person who has violated the provisions of [Article 25-2](#) (2) may be charged only when an accusation is filed against him: <Amended by Act No. 1694, Apr. 3, 1965; Act No. 2279, Jan. 13, 1971; Act No. 2861, Dec. 31, 1975; Act No. 4486, Dec. 31, 1991; Act No. 4731, Jan. 7, 1994; Act No. 6153, Jan. 12, 2000; Act No. 6511, Aug. 14, 2001>

1.A person who has violated the provisions of [Articles 22](#) (3), [24](#), [25](#), [25-2](#) (1) and (2), [30](#) (1), [31](#) (1), [50](#), [51](#), [52](#), [57](#) (including a case where it is applied mutatis mutandis in [Article 59](#)), [58](#) or [60](#);

2.Deleted; and <by Act No. 4486, Dec. 31, 1991>

3.A person who has violated orders issued under [Articles 64](#) (1) through [68](#), or who has obstructed, refused or evaded inspection, removal or dispositions by the pertinent public officials.

Article 78 (Penal Provisions)

If a representative of a juristic person, or an agent or employee, regular or otherwise, of a juristic person or individual has violated the provisions of [Articles 74](#) through [77](#) in the conduct of business of the juristic person or individual concerned, the pertinent fine shall be imposed upon the juristic person or individual concerned, as well as the persons who have committed the violation.

Article 79 (Fine for Negligence)

(1) Any person who falls under any of the following subparagraphs, shall be punished by a fine for negligence not exceeding one million won: <Amended by Act No. 4731, Jan. 7, 1994>

1.A person who fails to make a report of a pharmacist or herb pharmacist in contravention of the provisions of [Article 6](#);

2.A person who fails to receive the training and education as prescribed in [Article 13-2](#);

3.A person who fails to observe the matters necessary for the management of a drugstore in contravention of the provisions of [Article 19](#) (4);

4.A person who fails to make a report of the discontinuance of business in contravention of the provisions of [Article 20](#) or [32](#);

5.A person who fails to make a report of the actual results of production of medicines, etc. in contravention of the provisions of [Article 31](#) (2);

6.A person who fails to make a report of the preparations in a drugstore or the manufacturing of preparations in a dispensary in contravention of the provisions of [Article 33](#) (1);

7.A person who fails to make a report in contravention of the provisions of [Article 64](#) (1);

8.A person who fails to renew the license, permit, or registration certificate in contravention of the provisions of [Article 71-2](#); and

9.A person who fails to observe the standards for use of animal medicines in contravention of the provisions of [Article 72-6](#) (3).

(2) The fine for negligence as referred to in paragraph (1) shall be imposed and collected by the Minister of Health and Welfare, the Commissioner of the Korea Food and Drug Administration, the Special Metropolitan City Mayor, Metropolitan City Mayor, Do governor or head of Shi/Kun/Ku (hereinafter referred to as the "competent authority") under the conditions as prescribed by the Presidential Decree. <Amended by Act No. 5454, Dec. 13, 1997; Act No. 5529, Feb. 28, 1998>

(3) Any person who is dissatisfied with a disposition of fine for negligence as referred to in paragraph (2), may make an objection against the competent authority, within thirty days after he has been informed of the disposition.

(4) If a person who is subject to a disposition of fine for negligence as referred to in paragraph (2) has made an objection under paragraph (3), the competent authority shall notify it without delay to the competent court, which shall, upon receiving the notification, bring the case of fine for negligence to trial under the [Non-Contentious Case Litigation Procedure Act](#).

(5) If no objection is made, and no fine for negligence is paid, in the period as referred to in paragraph (3), it shall be collected by examples of a disposition of national or local taxes in arrears.
[This Article Newly Inserted by Act No. 4486, Dec. 31, 1991]

ADDENDA

Article 1 (Enforcement Date)

This Act shall enter into force at the expiration of two months after its promulgation.

Article 2 (Transitional Measures)

The National Prescription Book enforced at the time of enforcement of this Act shall be regarded as Part II of the Korean Pharmacopoeia until Part II of the Korean Pharmacopoeia under this Act is enacted and made public.

Article 3

Deleted. <by Act No. 4731, Jan. 7, 1994>

Article 4 (Idem)

The licenses for pharmacist, permit or registration for manufacturing or import-export business of medicines, etc.; the registration of establishing pharmacies, and licenses for druggists, herb druggists and drug wholesalers, obtained in accordance with the previous Acts and subordinate statutes, shall be regarded as the licenses for pharmacist, permits or approval for manufacturing or import-export business of medicines, etc.; approval for establishing pharmacies and licenses for druggist, herb druggist and drug dealers, obtained in accordance with this Act; and persons having the qualification to obtain the licenses for pharmacist under the previous Acts and subordinate statutes, at the time of the enforcement of this Act shall be regarded as the persons who have the qualification to obtain the licenses for pharmacist under this Act: Provided, That facilities which do not meet the facilities standards as prescribed in this Act, shall be repaired and renovated, within one year from the date of the enforcement of this Act, so that they may meet the facilities standards as prescribed in this Act.

Article 5 (Idem)

The dispositions taken against pharmaceutical affairs under the previous Acts and subordinate statutes shall be regarded to have been taken under this Act.

Article 6 (Idem)

[Articles 35](#), [41](#), [42](#) and [63](#) (4) of this Act shall not apply to such medicines and medical appliances for family planning as designated by the Minister of Health and Welfare. As for the giving and selling of medicines on trains, planes, and other places as determined by the Minister of Health and Welfare, and any person who is designated by the Minister of Health and Welfare may give or sell only such items as designated by the Minister of Health and Welfare to the actual consumers in accordance with the Ordinance of the Ministry of Health and Welfare, notwithstanding the provisions of [Articles 35](#) and [41](#). <Amended by Act No. 2279, Jan. 13, 1971; Act No. 2861, Dec. 31, 1975>

ADDENDA

<Act No. 1694, Apr. 3, 1965>

Article 1 (Enforcement Date)

This Act shall enter into force at the expiration of two months after its promulgation.

Article 2

Deleted. <by Act No. 4486, Dec. 31, 1991>

Article 3 (Transitional Measures)

Any person who has obtained under the previous Acts and subordinate statutes: a license for the manufacturing or import-export of medicines, a registration or permit of opening a pharmacy, a license of distribution of medicines, but whose facilities do not meet the standards of facilities of this Act, shall renovate the facilities so as to meet the standards of this Act within one year from the date of enforcement of this Act.

Article 4 (Idem)

The approval of opening a pharmacy and registering the items to be processed at a pharmacy, under the previous Acts and subordinate statutes, shall be deemed as registration on opening a pharmacy or notification of the items to be processed at a pharmacy under this Act.

Article 5 (Idem)

Any person who has obtained approval of the items of medicines, etc. to be manufactured under the previous Acts and subordinate statutes at the time of enforcement of this Act, shall obtain a permit of manufacturing within six months from the date of enforcement of this Act. If they fail to obtain a permit within such period, an approval already given shall be deemed to have been cancelled.

ADDENDA <Act No. 1910, Mar. 3, 1967>

Article 1 (Enforcement Date)

This Act shall enter into force on the date of its promulgation.

Article 2 (Transitional Measures)

The Korean Pharmacists Association and the Pharmacists Associations in the Seoul Special Metropolitan City, Pusan Metropolitan City, and Dos at the time of enforcement of this Act, shall be deemed as the Korean Pharmacists Association and the Branches of the Korean Pharmacists Association established under this Act.

Article 3 (Idem)

The druggists who are practicing in drugstores at the time of enforcement of this Act, shall take the Druggist Examination within two years from the enforcement date of this Act as determined by the Ordinance of the Ministry of Health and Welfare, and then may be authorized to open a drugstore, only in an area for which a drug-medicine sale license has been issued.

ADDENDA <Act No. 2279, Jan. 13, 1971>

(1) (Enforcement Date) This Act shall enter into force on the date of its promulgation.

(2) (Transitional Measures) The druggists and drug sellers, at the time of enforcement of this Act, who have obtained licenses under the previous Acts and subordinate statutes, shall be subject to the provisions of the previous Acts and subordinate statutes. <Amended by Act No. 4486, Dec. 31, 1991>

(3) (Idem) The herb druggist who has obtained a herb drug license at the time of enforcement of this Act, shall be deemed as having obtained a license under this Act.

(4) (Idem) For a herb druggist who has left the licensed area due to war or natural disaster at the time of enforcement of this Act, and who has left the licensed area before the enforcement of the Act (Act No. 1910, Mar. 3, 1967), his residence may be taken to be the licensed area only when he has obtained an approval from the Seoul Special Metropolitan City Mayor, the Pusan

Metropolitan City Mayor or the Do governor concerned having jurisdiction over
his residence.

ADDENDUM <Act No. 2611, Mar. 13, 1973>

This Act shall enter into force at the expiration of thirty days after its promulgation.

ADDENDA <Act No. 2861, Dec. 31, 1975>

(1) (Enforcement Date) This Act shall enter into force on the date of its promulgation.

(2) (Transitional Measures) Any person who has obtained a license for the manufacturing of medicines or sanitary supplies under the previous provisions, and having a license for the items as designated under [Article 2](#) (7) at the time of enforcement of this Act, shall be deemed to have obtained a license for the manufacturing and the items of non-pharmaceutical drugs: Provided, That any person who does not obtain a license for the manufacturing of non-pharmaceutical drugs, shall obtain a license thereof, within one year from the enforcement date of this Act.

ADDENDA <Act No. 3441, Apr. 13, 1981>

Article 1 (Enforcement Date)

This Act shall enter into force at the expiration of thirty days after its promulgation.

Articles 2 through 10

Omitted.

Article 11 (Transitional Measures by Amendment of [Pharmaceutical Affairs Act](#))

(1) Any person who has registered with the Seoul Special Metropolitan City Mayor, the Pusan Metropolitan City Mayor or Do governor pursuant to the provisions of Articles 16 (2) and 42 (1) of the previous [Pharmaceutical Affairs Act](#), at the time of enforcement of this Act, shall be deemed to have registered with the head of Shi/Kun/Ku pursuant to this Act.

(2) Any person who has obtained the approval of the Seoul Special Metropolitan City Mayor, the Pusan Metropolitan City Mayor or Do governor pursuant to the provisions of Articles 19 (2) and 21 (2) of the previous [Pharmaceutical Affairs Act](#), at the time of enforcement of this Act, shall be deemed to have obtained the approval of the head of Shi/Kun/Ku pursuant to this Act.

(3) Any person who has reported to the Seoul Special Metropolitan City Mayor, the Pusan Metropolitan City Mayor or Do governor pursuant to the provisions of Articles 20 and 33 (1) of the previous [Pharmaceutical Affairs Act](#) at the time of enforcement of this Act, shall be deemed to have reported to the head of Shi/Kun/Ku pursuant to this Act: Provided, That this provision shall not apply to the case as referred to in the proviso of [Article 33](#) (1) of the amended [Pharmaceutical Affairs Act](#).

(4) The application of penal provisions to acts done before the enforcement of this Act shall be subject to the previous provisions.

Articles 12 through 15

Omitted.

ADDENDA

<Act No. 3825, May 10, 1986>

Article 1 (Enforcement Date)

This Act shall enter into force at the expiration of thirty days after its promulgation.

Articles 2 through 14

Omitted.

ADDENDA <Act No. 4268, Dec. 27, 1990>

Article 1 (Enforcement Date)

This Act shall enter into force on the date of its promulgation.

Articles 2 through 10

Omitted.

ADDENDA <Act No. 4486, Dec. 31, 1991>

Article 1 (Enforcement Date)

This Act shall enter into force at the expiration of six months after its promulgation.

Article 2 (Transitional Measures concerning Permission on Import of Medicines, etc.)

Items which obtained the permission on the import of medicines, etc. pursuant to the previous provisions at the time this Act enters into force, shall be considered as have obtained the permission on the import or made the report under [Article 34](#) (1).

Article 3 (Transitional Measures concerning Restriction on Permission on Wholesaler of Medicines)

Notwithstanding the provisions of [Article 37](#) (4) 4, any person who has obtained the license for wholesaler of medicines pursuant to the previous provisions, at the time this Act enters into force, any person who establishes a medical institution, may carry on the business of wholesaler of medicines up to one year from the enforcement date of this Act.

ADDENDA <Act No. 4731, Jan. 7, 1994>

Article 1 (Enforcement Date)

This Act shall enter into force at the expiration of six months after its promulgation: Provided, That the provisions of [Articles 21](#) (4) and (5), and [41](#) (2), the deleted provisions of Article 3 of the Addenda of the amended act of the [Pharmaceutical Affairs Act](#) (Act No. 1491, December 13, 1963), and [Article 3 of the Addenda](#) of this Act, shall enter into force on July 1, 2000. <Amended by Act No. 5959, Mar. 31, 1999>

Article 2 (Transitional Measures concerning Eligibility of Application for National Examination for Pharmacists)

Those who are eligible for application for the national examination for pharmacists pursuant to the previous provisions, and those who are in any

corresponding colleges of foreign countries, determined by the Minister of Health and Welfare, at the time this Act enters into force, shall be subject to the previous provisions.

Article 3 (Transitional Measures concerning Preparation of Medicines by Herb Doctors or Veterinarians)

Notwithstanding the provisions of [Article 21](#) (1) and (2), if a herb doctor prepares in person any herb drugs and they are prepared and used by himself for any medical treatment, or if a veterinarian prepares in person any medicine for animals for the use of himself for any medical treatment, he shall be permitted to do so.

Article 4 (Transitional Measures concerning Preparation of Herb Drugs by Pharmacist)

(1) Notwithstanding the provisions of [Article 21](#) (1), any person who falls under any of the following subparagraphs, may prepare herbal medicines in conformity with the provisions of [Article 21](#) (7):

1.A person who holds the license for a pharmacist; and a person who has graduated from a college majoring in pharmacy, but has not obtained the license for a pharmacist, at the time this Act enters into force, and passes the examination for the preparation of herb drugs, as prescribed by the Presidential Decree, within two years after this Act enters into force, respectively: Provided, That he shall apply for the examination for the preparation of herb drugs after obtaining the license for a pharmacist; and

2.A person who is in a college majoring in pharmacy at the time this Act enters into force; and has completed such subjects connected to herb drugs as prescribed by the Ordinance of the Ministry of Health and Welfare; and passes the examination for the preparation of herb drugs, as prescribed by the Presidential Decree within two years after graduating from the college: Provided, That he shall apply for the examination for the preparation of herb drugs, after

obtaining the license for a pharmacist.

(2) Notwithstanding the provisions of [Article 21](#) (1), any person who is a pharmacist and has prepared herb drugs for one or more years at the time this Act enters into force, and is confirmed by the head of Shi/Kun/Ku, may prepare herb drugs in conformity with the provisions of [Article 21](#) (7) for two years after this Act enters into force.

ADDENDUM <Act No. 4852, Dec. 31, 1994>

This Act shall enter into force on the date of its promulgation: Provided, That the revised provisions of [Article 34-2](#) (2) 3 shall enter into force on March 1, 1995.

ADDENDA <Act No. 4852, Dec. 6, 1995>

Article 1 (Enforcement Date)

This Act shall enter into force on January 1, 1996. (Proviso Omitted.)

Article 2

Omitted.

ADDENDA <Act No. 5101, Dec. 29, 1995>

Article 1 (Enforcement Date)

This Act shall enter into force on July 1, 1996.

Articles 2 through 4

Omitted.

ADDENDA <Act No. 5153, Aug. 8, 1996>

Article 1 (Enforcement Date)

This Act shall enter into force within 30 days of the date of enforcement of the Presidential Decree, with regard to the organization of the Ministry of Maritime Affairs and Fisheries and the National Maritime Police Agency as prescribed by the amended provisions of [Article 41](#).

Articles 2 through 4

Omitted.

ADDENDA <Act No. 5453, Dec. 13, 1997>

Article 1 (Enforcement Date)

This Act shall enter into force on January 1, 1998. (Proviso Omitted.)

Article 2

Omitted.

ADDENDUM <Act No. 5454, Dec. 13, 1997>

This Act shall enter into force on January 1, 1998. (Proviso Omitted.)

ADDENDA <Act No. 5529, Feb. 28, 1998>

Article 1 (Enforcement Date)

This Act shall enter into force on the date of its promulgation. (Proviso Omitted.)

Articles 2 through 7

Omitted.

ADDENDA <Act No. 5959, Mar. 31, 1999>

(1) (Enforcement Date) This Act shall enter into force on July 1, 2000. Provided, That the amended provisions of [Article 1 of the Addenda](#) of Amendments to [Pharmaceutical Affairs Act](#), Act No. 4731 and the amended provisions of paragraph (2) of the Addenda of this Act shall enter into force on the date of its promulgation.

(2) Omitted.

ADDENDA <Act No. 5982, May 24, 1999>

Article 1 (Enforcement Date)

This Act shall enter into force on the date of its promulgation. (Proviso

Omitted.)

Articles 2 through 6

Omitted.

ADDENDA <Act No. 6025, Sep. 7, 1999>

Article 1 (Enforcement Date)

This Act shall enter into force on July 1, 2000.

Articles 2 through 6

Omitted.

ADDENDA <Act No. 6153, Jan. 12, 2000>

Article 1 (Enforcement Date)

This Act shall enter into force on July 1, 2000.

Article 2 (Transitional Measures concerning Non-Pharmaceutical Drugs)

Any non-pharmaceutical drugs and sanitary supplies under the previous provisions at the time of enforcing this Act shall be deemed non-pharmaceutical drugs under the amended provisions of [Article 2](#) (7).

Article 3 (Transitional Measures concerning Restrictions on Registration of Pharmacy Opening)

Any person who opens a pharmacy at the facilities or within the compound of a medical institution from among operators of pharmacies under the previous provisions at the time of enforcing this Act may continue to run his pharmacy for up to one year from the date of the enforcement of this Act notwithstanding the amended provisions of [Article 16](#) (5) 2.

Article 4 (Transitional Measures concerning Business Discontinuation of Pharmacy and Manufacturing Medicines, etc.)

Any report filed on business discontinuation, business suspension or business resumption shall apply starting with a report filed on business discontinuation, business suspension or business resumption for the first time after the enforcement of this Act.

Article 5 (Transitional Measures concerning Report on Business of Manufacturing Non-Pharmaceutical Drugs)

A person who obtains a license for the business of manufacturing non-pharmaceutical drugs or sanitary supplies under the previous provisions at the time of enforcing this Act shall be deemed to file a report on his business of manufacturing non-pharmaceutical drugs under the amended provisions of [Article 26](#).

Article 6 (Transitional Measures concerning Subdivision License for Medicines and Medical Appliances)

A person who is granted with a subdivision license for medicines and medical appliances under the previous provisions at the time of enforcing this Act shall be deemed to obtain such subdivision license for the business of manufacturing medicines and medical appliances under the amended provisions of [Article 26](#)

and a person who is granted with a subdivision license for non-pharmaceutical drugs or sanitary supplies under the previous provisions at the time of enforcing this Act shall be deemed to file a report on the business of manufacturing non-pharmaceutical drugs under the amended provisions of [Article 26](#).

Article 7 (Transitional Measures concerning License for Manufacturing Items of Medicines and Medical Appliances)

A person who is granted with a subdivision license or files a report on medicines and medical appliances under the previous provisions at the time of enforcing this Act shall be deemed to be granted with a license for or file a report on the business of manufacturing items of medicines and medical appliances under the amended provisions of [Article 26](#) and a person who is granted with a subdivision license for or files a report on non-pharmaceutical drugs and medical appliances under the previous provisions at the time of enforcing this Act shall be deemed to be granted with a license for or file a report on the business of manufacturing items of non-pharmaceutical drugs under the amended provisions of [Article 26](#).

Article 8 (Transitional Measures concerning Permit for Imports of Non-Pharmaceutical Drugs Items)

Any person who obtains a permit for or files a report on import items of non-pharmaceutical drugs and sanitary supplies under the previous provisions at the time of enforcing this Act shall be deemed to obtain a permit for or file a report on import items of such non-pharmaceutical drugs and sanitary supplies under the amended provisions of [Article 34](#).

Article 9 (Transitional Measures concerning Report on Business of Selling Medical Appliances)

Any person who files a registration for his business of selling medical appliances under the previous provisions at the time of enforcing this Act shall be deemed to file a registration for his business of selling medical appliances under the

amended provisions of [Article 42](#).

Article 10

Omitted.

Article 11 (Transitional Measures concerning Sales of Special Medicines by Pharmacists)

Any pharmacist who is in his business under the provisions of paragraph (2) of the Addenda of the [Pharmaceutical Affairs Act](#) amended by Act No. 2279 at the time of enforcing this Act shall be prohibited from selling any special medicines in any area other than an area which is prescribed by the Minister of Health and Welfare as nonexistence of any pharmacy or medical institution under [Article 21](#) (6) of this Act.

ADDENDUM <Act No. 6272, Aug. 5, 2000>

This Act shall enter into force one month after the date of its promulgation: Provided, That the amendment to subparagraph 2 of [Article 39](#) shall enter into force on January 1, 2001.

ADDENDA <Act No. 6400, Jan. 29, 2001>

Article 1 (Enforcement Date)

This Act shall enter into force on the date of its promulgation. (Proviso Omitted.)

Articles 2 through 4

Omitted.

ADDENDA

<Act No. 6511, Aug. 14, 2001>

Article 1 (Enforcement Date)

(1) This Act shall enter into force on the date of its promulgation.

(2) Notwithstanding paragraph (1), the amended provisions of [Article 21](#) (5) 5 shall enter into force after the lapse of three months from the date of its promulgation.

(3) Notwithstanding paragraph (1), the amended provisions of [Article 23-2](#) shall enter into force after the lapse of 30 days from the date on which the branch of the Doctors' Association, etc. furnishes the branch of the Pharmacists' Association of the relevant Shi/Kun/Ku with the table of local prescription medicines and the table of prescription medicines by medical institution (the date on which the table of prescription medicines is adjusted if adjusted under the amended provisions of [Article 22-2](#) (4)).

(4) Notwithstanding paragraph (1), the amended provisions of [Article 26](#) (6) and (7) and the amended provisions of [Article 26-4](#) shall enter into force after the lapse of six months from the date of its promulgation.

Article 2 (Transitional Measure concerning Registration of Pharmacy Opening)

(1) In the event that a pharmacy is established by dividing, altering or repairing part of facilities and lot of a medical institution, from among persons who have established their pharmacies under the previous provisions, at the time that this Act enters into force, such pharmacy may continue to be run for up to one year from the date on which this Act enters into force, notwithstanding the amended

provisions of [Article 16](#) (5) 3.

(2) In the event that a pathway, such as an exclusive corridor, a flight of stairs, an elevator or a footbridge, etc, is in place between a pharmacy and a medical institution at the time that this Act enters into force from among pharmacies whose establishments have been registered under the previous provisions, notwithstanding the amended provisions of [Article 16](#) (5) 4, such pharmacy shall work not to violate the amended provisions within one year from the date on which this Act enters into force.

Article 3 (Transitional Measures concerning Preparation of Table of Prescription Medicines, etc.)

(1) Every person who has established a medical institution shall submit a table of prescription medicines prepared by the relevant medical institution under the amended provisions of [Article 22-2](#) (1) to the branch of the Doctors' Association or the branch of the Dentists' Association (hereinafter referred to as the "branch of the Doctors' Association, etc."), established under Article 26 (5) of the [Medical Service Act](#), of the Shi/Kun/Ku in the location of such medical institution within 10 days from the date on which this Act enters into force.

(2) The branch of the Doctors' Association, etc. shall provide the branch of the Pharmacists' Association of the relevant Shi/Kun/Ku with a table of local prescription medicines and a table of prescription medicines by medical institution prepared under the amended provisions of [Article 222](#) (2) within 30 days from the date on which this Act enters into force.

Article 4 (Transitional Measures concerning Approval of Clinical Demonstration, etc.)

Any clinical demonstration plan for which approval is obtained from the Commissioner of the Korea Food and Drug Administration under [Article 26](#) (6) at the time that this Act enters into force shall be deemed that such approval is obtained under the amended provisions of [Article 26-4](#).

**Article 5 (Transitional Measures concerning Limits on Wholesale Business License
Granted to Officers and Employees, etc.)**

Any officer or employee of a medical institution who is in the business of wholesaling medicines after having obtained a license for the wholesale business of medicines at the time that this Act enters into force may continue his wholesale business of medicines for up to one year from the date on which this Act enters into force notwithstanding the amended provisions of [Article 37](#) (4).

Article 6 (Transitional Measures concerning Korea Orphan Drug Center)

(1) The Korea Orphan Drug Center that is created as a juridical foundation under Article 32 of the [Civil Act](#) at the time that this Act enters into force shall be deemed the Korea Orphan Drug Center set up under the amended provisions of [Article 72-12](#).

(2) The Korea Orphan Drug Center shall make the articles of association under this Act and obtain authorization thereof from the Commissioner of the Korea Food and Drug Administration within six months from the date on which this Act enters into force.

ADDENDA <Act No. 6611, Jan. 14, 2002>

Article 1 (Enforcement Date)

This Act shall enter into force one year and six months after the date of its promulgation. (Proviso Omitted.)

Articles 2 through 4

Omitted.

ADDENDA <Act No. 6685, Mar. 30, 2002>

(1) (Enforcement Date) This Act shall enter into force on the date of its promulgation.

(2) (Transitional Measures for Administrative Disposition) With regard to the administrative disposition on the acts committed prior to the enforcement of this Act, the previous provisions shall govern.

ADDENDA <Act No. 6844, Dec. 30, 2002>

(1) (Enforcement Date) This Act shall enter into force one year after the date of its promulgation.

(2) (Transitional Measures) Manufacturers or importers of non-pharmaceutical drugs under the amended provisions of [Article 2](#) (7) 3 at the time of enforcement of this Act shall obtain a permit or file a report under the provisions of [Article 26](#) (1) or [34](#) (1) within three months after the enforcement of this Act.

ADDENDUM <Act No. 6982, Sep. 29, 2003>

This Act shall enter into force on the date of its promulgation.

ADDENDA <Act No. 7148, Jan. 29, 2004>

Article 1 (Enforcement Date)

This Act shall enter into force on the date of its promulgation. (Proviso
Omitted.)

Articles 2 and 3

Omitted.

附件八

新加坡殺蟲劑與危害物質

註冊許可申請單

The law stated here is as of 1 November 2010.

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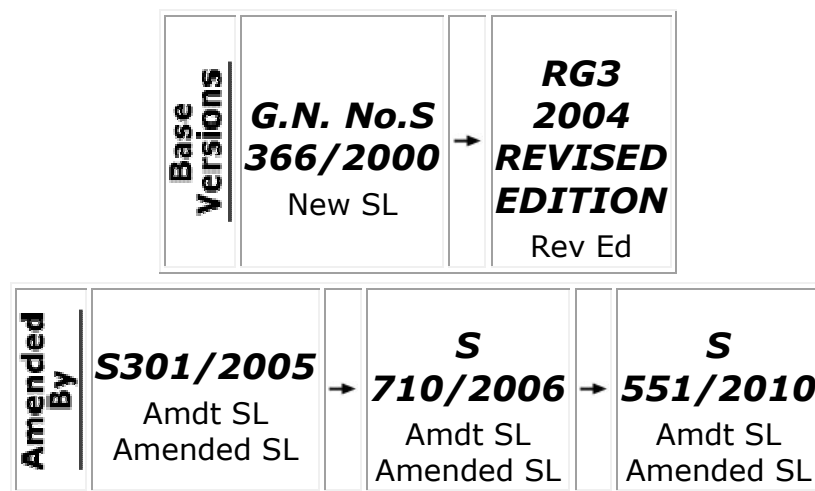
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CONTROL OF VECTORS AND PESTICIDES ACT

(CHAPTER 59, SECTION 60)

CONTROL OF VECTORS AND PESTICIDES (REGISTRATION, LICENSING AND CERTIFICATION) REGULATIONS



[1st September 2000]

Arrangement of Provisions

PART I

PRELIMINARY

1 Citation

2 Definitions

PART II

VECTOR CONTROL TECHNICIAN AND VECTOR CONTROL WORKER

3 Qualifications for licence or certificate

4 Medical examination

PART III

MISCELLANEOUS

- 5 Renewal of registration, licence or certificate
- 6 Production of certificate of registration, licence or certificate
- 7 Replacement of certificate of registration, licence or certificate
- 8 Surrender of certificate of registration, licence or certificate
- 9 Fees
- 10 Penalty

THE SCHEDULE FEES

Actual Provisions

PART I PRELIMINARY

Citation

1. These Regulations may be cited as the Control of Vectors and Pesticides (Registration, Licensing and Certification) Regulations.

Definitions

2. In these Regulations —

"certified vector control worker" means a vector control worker who is granted a certificate or a provisional certificate under section 29 of the Act;

"licensed vector control technician" means a vector control technician who is granted a licence or a provisional licence under section 29 of the Act;

"registered vector control operator" means a vector control operator who is registered under section 29 of the Act.

PART II VECTOR CONTROL TECHNICIAN AND VECTOR CONTROL WORKER

Qualifications for licence or certificate

3.—(1) A person who wishes to apply for a vector control technician's licence must have —

(a) a minimum educational qualification of 4 'O' Level passes or any other equivalent qualification acceptable to the Director-General; or

(b) 3 years working experience in vector control.

(2) A person who wishes to apply for a vector control worker's certificate must have at least a Primary 6 education or any other equivalent qualification acceptable to the Director-General.

(3) A person who wishes to apply for a vector control technician's licence or a vector control worker's certificate must successfully complete such training courses and pass such examinations as the Director-General may specify.

Medical examination

4.—(1) A person who wishes to apply for a vector control technician's licence or a vector control worker's certificate must undergo a medical examination and submit the results of the medical examination together with his application.

(2) No vector control technician's licence, provisional vector control technician's licence, vector control worker's certificate or provisional vector control worker's certificate shall be granted if the results of the medical examination under paragraph (1) are unsatisfactory.

(3) Every licensed vector control technician and certified vector control worker shall undergo a regular half-yearly medical examination, and submit the results of the medical examination to the Director-General, within the period specified by the Director-General.

(4) If the results of the medical examination under paragraph (3) are unsatisfactory, the licensed vector control technician or the certified vector control worker, as the case may be, shall undergo a monthly medical examination until the results of the medical examination are satisfactory.

(5) If the results of 2 consecutive monthly medical examinations are unsatisfactory, the vector control technician or the vector control worker shall have his licence or provisional licence, or certificate or provisional certificate, as the case may be, suspended until the results of the medical examination are satisfactory.

(6) A vector control technician's licence, a provisional vector control technician's licence, a vector control worker's certificate or a provisional vector control worker's certificate shall not be renewed unless —

(a) the licensed vector control technician or the certified vector control worker, as the case may be, complies with the requirements of this regulation; and

(b) the results of the last medical examination that the licensed vector control technician or the certified vector control worker, as the case may be, was required to undergo under this regulation are satisfactory.

(7) In this regulation, "medical examination" means a medical examination for the purpose of determining a person's level of red blood cell acetylcholinesterase.

PART III

MISCELLANEOUS

Renewal of registration, licence or certificate

5.—(1) An application to renew —

(a) the registration of a vector control operator;

(b) a vector control technician's licence or a provisional vector control technician's licence; or

(c) a vector control worker's certificate or a provisional vector control worker's certificate,

shall be made not less than one month before the date of expiry.

(2) The Director-General may refuse to renew the registration, licence or certificate referred to in paragraph (1) if the application is not made within the time specified in that paragraph unless the Director-General is satisfied that there is reasonable cause for the delay.

(3) A provisional vector control technician's licence or a provisional vector control worker's certificate may not be renewed more than once.

Production of certificate of registration, licence or certificate

6. A registered vector control operator, a licensed vector control technician and a certified vector control worker shall, if required by the Director-General or an authorised officer, produce for inspection the certificate of registration issued to

him, or the licence or provisional licence or certificate or provisional certificate granted to him, under section 29 of the Act.

Replacement of certificate of registration, licence or certificate

7. A registered vector control operator, a licensed vector control technician and a certified vector control worker shall, if the certificate of registration issued to him, or the licence or provisional licence or certificate or provisional certificate granted to him, as the case may be, under section 29 of the Act, is lost or defaced —

(a) apply to the Director-General for a replacement; and

(b) if the certificate of registration, the licence or provisional licence or certificate or provisional certificate is defaced, surrender the original to the Director-General.

Surrender of certificate of registration, licence or certificate

8. A registered vector control operator, a licensed vector control technician and a certified vector control worker shall surrender his certificate of registration, licence or provisional licence or certificate or provisional certificate, as the case may be, to the Director-General immediately upon the cancellation or suspension of his registration, licence or provisional licence, or certificate or provisional certificate, as the case may be.

Fees

9.—(1) There shall be payable to the Agency, in respect of the matters set out in the first column of the Schedule, the fees set out in the second column.

(2) The fees payable under paragraph (1) shall not be refundable.

Penalty

10. Any person who contravenes regulation 4 (3) or (4), 6, 7 (a) or 8 shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000 and, in the case of a second or subsequent conviction, to a fine not exceeding \$10,000.

THE SCHEDULE

Regulation 9

FEES

PART I

<i>First column</i>	<i>Second column</i>
	<i>For a period of 9 months or part thereof</i>
(1) Provisional vector control technician licence	\$16.50
(2) Provisional vector control worker certificate	\$13

PART II

For a period of 3 years or part thereof

(1) Vector control operator registration	\$90
(2) Vector control technician licence	\$28
(3) Vector control worker certificate	\$22

PART III

Replacement of —

(a) a certificate of registration of a vector control operator	\$20
(b) a licence or provisional licence of a vector control technician	\$20
(c) a certificate or provisional certificate of a vector control worker	\$20.

[G.N. No. S 366/2000]

This legislation was last updated on 1 October 2010.

**POLLUTION CONTROL DEPARTMENT
NATIONAL ENVIRONMENT AGENCY
40 SCOTTS ROAD, #12-00
S(228231)**

HAZARDOUS SUBSTANCES *LICENCE/PERMIT APPLICATION FORM

- Please read the attached Guidance Notes for Filling of Application Form before filling the form.
- Please write clearly.
- This application may take you about 20 minutes to 1½ hours to fill in.
- You will need the following information to fill in the application :
 - The company's ACRA information;
 - Particulars of applicant such as designation, academic qualification and email address;
 - Employment pass, if the applicant is a foreigner;
 - Clearance on use of industrial premises from Central Building Plan Unit (NEA);
 - Types and maximum quantities of hazardous substances use/ store;
 - Details of storage area/ facilities;
 - Consent from the third-party owner of PCD approved chemical warehouse, if you intend to store hazardous substances at their premises;
 - Details of emergency action plan to mitigate a spill/ release of hazardous substances etc.
- All items shall be completed. Enter 'NA' where not applicable. Please note that we will be unable to process incomplete application.
- Processing takes approximately 2 weeks. You will be informed of the outcome of your application.

PART I PURPOSE OF APPLICATION

Please tick (✓) where applicable

☐ New ☐ Change Holder ☐ Renewal ☐ Amendment ☐ Inclusion

PART II PARTICULARS OF FIRM

Full Name of Company: (Attach Company Registration Certificate)		
Registered Address:		
Mailing Address:		
Tel No:	Fax No:	E-mail:
Nature of Business:		

PART III PARTICULARS OF APPLICANT

Full Name of Applicant: *(Mr/Miss/Mdm)
Designation in Firm:
Citizenship: (Attach copy of work permit/employment pass/ PR status/ re-entry permit)
*NRIC No/Work Permit No./ Employment Pass No:
Address of Residence:

Academic Qualification:
Details of Previously Held Hazardous Substances*Licence/Permit:

* Delete where not applicable

PART IV # PARTICULARS OF HAZARDOUS SUBSTANCES

(Photocopy and insert additional sheets if required)

*** ADDRESS OF STORE :**

Name of Hazardous Substance	Max Purity (%)	Physical Form	Unit Capacity of Container (MT/kg/lit)	Max Qty Stored at Any One Time (MT/kg/lit)	Specify Use / Type of Customer
		**Solid/Liquid/Gas			
		**Solid/Liquid/Gas			
		**Solid/Liquid/Gas			
		**Solid/Liquid/Gas			
		**Solid/Liquid/Gas			
		**Solid/Liquid/Gas			
		**Solid/Liquid/Gas			
		**Solid/Liquid/Gas			

For change of holder only, no change in hazardous substances ☐ [Please tick (✓)]* Indicate the address of store if you propose to store the hazardous substances at more than one location.
Use separate list for different storage premises.

** Delete where not applicable

PART V PURPOSE OF HAZARDOUS SUBSTANCES

Please tick (✓) where applicable

☐ Import for Own Use	☐ Purchase Locally for Own Use	☐ Other (specify) :
☐ Import for Local Sale	☐ Purchase Locally for Local Sale	
☐ Import for Re-export	☐ Purchase Locally for Export	

PART VI DETAILS OF STORAGE PREMISES / FACILITIES

Address of Store: (State mode of transaction if storage is not required)	
Type of Premises: (Please tick (✓) where applicable)	
☐ Detached Factory ☐ Terrace Factory ☐ Flatted Factory ☐ Shophouse ☐ Warehouse ☐ Others (specify):	☐ HDB ☐ JTC ☐ Private ☐ PSA ☐ Commercial ☐ Others (specify):
Approved Activity at the Address of Store: (Attach approval letter from HDB/JTC/CBPU, if any)	
No. and Capacity of Fixed Storage Tanks (if any) for the Storage of Hazardous Substances: (Attach CSC/PE Certification)	
Emergency Action Plan to Mitigate a Spill/Release of Hazardous Substances: (Attach additional sheets if necessary)	

* a) Applicable to all Hazardous Substances b) Not applicable to the storage of ODS other than Methyl Bromide

PART VII TRANSPORTATION

Do you transport the hazardous substances in Part IV in quantities exceeding those listed in The Schedule of the Environmental Pollution Control (Hazardous Substances) Regulations?

- ☐ Yes. (Apply for a Transport Approval separately)
- ☐ No.
- ☐ N.A.

Please name the companies carrying out the transportation of hazardous substances, in Part IV, in quantities exceeding those listed in The Schedule of the Environmental Pollution Control (Hazardous Substances) Regulations, on your behalf (if any):

PART VIII DECLARATION

I, _____, *NRIC No./Work Permit No./Employment

Pass No. _____, certify that

- i) I have read and understood the Environmental Pollution Control Act and its Regulations.
- ii) the information given above are true in every respect.

Signature of Applicant	
Designation/Position in Firm/Company	
Date	

* Delete where not applicable

END OF FORM

FORM(1Jan03)

附件九

新加坡危害物質清單

TABLE 1

LIST OF CONTROLLED HAZARDOUS SUBSTANCES
(HAZARDOUS SUBSTANCES LISTED IN THE 2ND SCHEDULE OF THE EPMA)

	<u>Substance</u>	<u>Exclusion</u>
1)	1,2-dibromoethane (EDB)	
2)	Acetic acid	Substances containing not more than 80%, weight in weight, of acetic acid; Preparations and solutions for photographic use.
3)	Acetic anhydride	
4)	Acetyl bromide	
*5)	Alachlor	
6)	Allyl isothiocyanate	
7)	Alkali metal bifluorides; Ammonium bifluoride; Potassium fluoride; Sodium fluoride; Potassium silicofluoride; Sodium silicofluoride; Silicofluoric acid	Preparations containing not more than 0.3%, weight in weight, of potassium fluoride in radiator protectors; Preparations containing not more than 0.96%, weight in weight, of potassium fluoride in photographic chemicals; Substances containing not more than 3%, weight in weight, of sodium fluoride or sodium silicofluoride as a preservative; Substances containing sodium fluoride intended for the treatment of human ailments.
8)	Ammonia	Preparations and solutions of ammonia containing not more than 10%, weight in weight, of ammonia; Refrigeration equipment; Photographic and plan developers; Hair colour dyes; Perm lotions; Smelling bottles.
9)	Ammonium chlorate	
10)	Anionic surface active agents	Preparations containing less than 5% by weight of anionic surface active agents; Preparations containing anionic surface active agents which are not less than 90% biodegradable under a test carried out in accordance with that part of the OECD

		method which is referred to as "Confirmatory Test Procedure" in European Communities Council Directive No. 73/405/EEC (C) or other equivalent test methods acceptable to the Director-General.
11)	Antimony pentachloride	Polishes
12)	Antimony trihydride	
13)	Arsenical substances, the following: Arsenic acid Arsenic sulphide Arsenic trichloride Arsine Calcium arsenite Copper arsenate Copper arsenite Lead arsenate Organic compounds of arsenic Oxides of arsenic Potassium arsenite Sodium arsenate Sodium arsenite Sodium thioarsenate	Pyrites ores or sulphuric acid containing arsenical poisons as natural impurities; Animal feeding stuffs containing not more than 0.005%, weight in weight, of 4-hydroxy-3-nitrophenyl-arsonic acid and not containing any other arsenical poison; Animal feeding stuffs containing not more than 0.01%, weight in weight, of arsanilic acid and not containing any other arsenical poison; Animal feeding stuffs containing not more than 0.0375%, weight in weight, of carbarsone and not containing any other arsenical poison.
14)	Asbestos in the form of crocidolite, actinolite, anthophyllite, amosite, tremolite, chrysotile and amphiboles and products containing these forms of asbestos	Asbestos in the form of chrysotile in any vehicle brake or clutch lining installed in any vehicle registered before 1st April 1995.
15)	Boric acid; Sodium borate	Boric acid or sodium borate in medicinal preparations, cosmetics, toilet preparations and substances being preparations intended for human consumption; Preparations containing boric acid or sodium borate or a combination of both where water or solvent is not the only other part of the composition.
16)	Boron tribromide	
17)	Boron trichloride	
18)	Boron trifluoride	

19)	Bromine; Bromine solutions	
20)	Cadmium-containing silver brazing alloy	
21)	Captafol	
22)	Carbamates	Benomyl; Carbendazim; Chlorpropham; Propham; Thiophanate-methyl; Preparations containing not more than 1%, weight in weight, of propoxur and not containing any other carbamate; Preparations containing not more than 1%, weight in weight, of methomyl and not containing any other carbamate.
23)	Carbon monoxide	Gas mixtures containing carbon monoxide weighing less than 1 metric tonne; Gas mixtures containing carbon monoxide as by-products from combustion activities.
24)	Carbon tetrafluoride	
25)	Chlorinated hydrocarbons, the following: Aldrin Benzene hexachloride (BHC) Bromocyclen Camphechlor Chlorbenside Chlorbicyclen Chlordane Chlordecone Chlordimeform Chlorfenethol Chlorfenson Chlorfensulphide Chlorobenzilate	Paper impregnated with not more than 0.3%, weight in weight, of benzene hexachloride or gamma - BHC provided it is labelled with directions that no food, wrapped or unwrapped, or food utensils are to be placed on the treated paper, and that it is not to be used where food is prepared or served.

Chloropropylate	
Dicophane (DDT)	
pp'-DDT	
Dicofol	
Dieldrin	
Endosulfan	
Endrin	
Fenazaflor	
Fenson	
Fluorbenzide	
Gamma benzene hexachloride (Gamma - BHC), also known as lindane	
HCH (mixed isomers)	
HEOD [1,2,3,4,10,10-hexachloro- 6,7-epoxy-1,4,4a,5,6,7,8,8a- octahydro-1, 4 (exo): 5,8 (endo)- dimethano naphthalene]	
HHDN [1,2,3,4,10,10-hexachloro- 1,4,4a,5,8,8a-hexahydro-1,4 (exo):5,8 (endo)-dimethano naphthalene]	
Heptachlor	
Hexachloroethane	
Isobenzan	
Isodrin	
Kelevan	
Methoxychlor [1,1,1-trichloro-2,2- di-(p-methoxyphenyl) ethane]	
Mirex	
*Polychlorinated butadienes	
Tetrachlorodiphenylethane [TDE; 1,1-dichloro-2,2-bis (p- chlorophenyl) ethane]	
Tetradifon	

	Tetrasul Toxaphene Allied chlorinated hydrocarbon compounds used as pesticides (insecticides, acaricides, etc.)	
26)	Chlorine	Chlorine used for chlorination of water in swimming pools.
27)	Chlorine trifluoride	
28)	Chlorobenzenes, the following: Monochlorobenzene Meta-dichlorobenzene Ortho-dichlorobenzene Trichlorobenzene Tetrachlorobenzene Pentachlorobenzene Hexachlorobenzene	
29)	Chlorophenols, the following: Monochlorophenol Dichlorophenol Trichlorophenol Tetrachlorophenol Pentachlorophenol and its salts and esters	Substances containing not more than 1%, weight in weight, of chlorophenols.
30)	Chlorophenoxyacids; their salts, esters, amines, which include but are not limited to - 2,4,5-T and its salts and esters	
31)	Chloropicrin	
32)	Chlorosilanes, the following: Hexachlorodisilane Phenyltrichlorosilane Tetrachlorosilane	
33)	Chlorosulphonic acid	
34)	Chromic acid	Substances containing not more than 9%, weight in weight, of chromic acid;

		Photographic solutions containing chromic acid in individual containers containing not more than 15 kilograms each of such solutions and of aggregate weight of not more than 500 kilograms of such solutions.
35)	Cyanides	Ferrocyanides; Ferricyanides; Acetonitrile; Acrylonitrile; Butyronitrile; 2-Dimethylaminoacetonitrile; Isobutyronitrile; Methacrylonitrile; Propionitrile.
36)	Diborane	
37)	Dibromochloropropane	
38)	Diethyl sulphate	
39)	Dinitro-ortho-cresol (DNOC) and its salts (such as ammonium salt, potassium salt and sodium salt)	
40)	Dinosam; its compounds with a metal or a base	
41)	Dinoseb and its salts and esters, which includes but is not limited to - Binapacryl	
42)	Diquat; its salts	
43)	Drazoxolon; its salts	Dressings on seeds.
44)	Dustable powder formulations containing a combination of - Benomyl at or above 7 percent, carbofuran at above 10 percent, thiram at or above 15 percent.	
45)	Endothal; its salts	
46)	Epichlorohydrin	
47)	Ethyl mercaptan	Substances containing less than 1%, weight in weight, of ethyl mercaptan
48)	Ethylene dichloride	
49)	Ethylene imine	
50)	Ethylene oxide	Mixtures of inert gases and ethylene oxide comprising not more than 12%, weight in weight, of ethylene oxide contained in

		cylinders of water capacity less than 47 litres and for aggregate of not more than 3 numbers of such cylinders.
51)	Ferric chloride	
52)	Fipronil	Formulated products containing Fipronil approved for household use and belonging to Table 5 of the WHO Recommended Classification of Pesticides by hazard.
53)	Fluorine	
54)	Fluoroacetamide	
55)	Formaldehyde	Substances containing not more than 5%, weight in weight, of formaldehyde; Photographic glazing or hardening solutions.
56)	Formic acid	Substances containing not more than 5%, weight in weight, of formic acid.
57)	Germane	
58)	Hydrazine anhydrous; Hydrazine aqueous solutions	
59)	Hydrochloric acid	Substances containing not more than 9%, weight in weight, of hydrochloric acid.
60)	Hydrofluoric acid	Preparations or solutions containing not more than 2%, weight in weight, of hydrofluoric acid.
61)	Hydrogen chloride	
62)	Hydrogen cyanide; Hydrocyanic acid	Preparations of wild cherry; In reagent kits supplied for medical or veterinary purposes, substances containing less than the equivalent of 0.1%, weight in weight, of hydrocyanic acid.
63)	Hydrogen fluoride	
64)	Hydrogen selenide	
65)	Isocyanates	Polyisocyanates containing less than 0.7%, weight in weight, of free monomeric diisocyanates; Pre-polymerised isocyanates in polyurethane paints and lacquers; Hardeners and bonding agents for immediate use in adhesives.
66)	Lead compounds in paint	Lead compounds in paint in which the lead content is not more than 0.06% by weight of the paint; Lead compounds in paint in which the container is affixed with an appropriate label. The labels to be used for paints containing lead compounds are in accordance with Part IV of the Second Schedule.

67)	Lead tetra-ethyl and similar lead containing compounds in petrol intended for use in Singapore as fuel for motor vehicles	
68)	Mercury compounds including inorganic mercury compounds, alkyl mercury compounds, alkyloxyalkyl and aryl mercury compounds, and other organic compounds of mercury	
*69)	Mercury	
70)	Mercury in Clinical Thermometers	
71)	Mercury and its compounds in batteries	Batteries other than mercury oxide batteries, zinc carbon batteries containing more than 0.001% by weight of mercury per cell and alkaline batteries, except those in button form, containing more than 0.025% by weight of mercury per cell.
72)	Metanil yellow (sodium salt of metanilylazo-diphenylamine)	Dye-indicators used in laboratories
73)	Methyl chloride	
74)	Methyl mercaptan	Substances containing less than 1%, weight in weight, of methyl mercaptan
75)	Monomethyltetrachloro diphenyl methane	
76)	Monomethyl-dichloro-diphenyl methane	
77)	Monomethyl-dibromodiphenyl methane	
78)	Neonicotinoid compounds used as pesticides, the following: Imidacloprid	Formulated products containing Imidacloprid approved for household use and belonging to Table 5 of the WHO Recommended Classification of Pesticides by Hazard.
79)	Niclofolan	
80)	Nicotine sulphate	
81)	Nitric acid	Substances containing not more than 9%, weight in weight, of nitric acid.
82)	Nitric oxide	
83)	Nitrobenzene	Substances containing less than 0.1%, weight in weight, of nitrobenzene; Soaps containing less than 1%, weight in weight, of nitrobenzene; Polishes and cleansing agents.
84)	Nitrogen trifluoride	
85)	Ozone depleting substances, namely:	Products containing any ozone depleting substance other than the following products:

(a) Chlorofluorocarbons, the following: Chloroheptafluoropropane Chloropentafluoroethane Chlorotrifluoromethane Dichlorodifluoromethane Dichlorohexafluoropropane Dichlorotetrafluoroethane Heptachlorofluoropropane Hexachlorodifluoropropane Pentachlorofluoroethane Pentachlorotrifluoropropane Tetrachlorodifluoroethane Tetrachlorotetrafluoropropane Trichlorofluoromethane Trichloropentafluoropropane Trichlorotrifluoroethane (b) Halons, the following: Bromochlorodifluoromethane Bromochloromethane Bromotrifluoromethane Dibromotetrafluoroethane (c) Hydrochlorofluorocarbons, the following: 1,1-dichloro-1-fluoro-ethane 1,1-dichloro-2,2,3,3,3-pentafluoropropane 1,3-dichloro-1,2,2,3,3-pentafluoropropane 1-chloro-1,1-difluoro-ethane Chlorodifluoroethane	(a) in the case of chlorofluorocarbons - (i) air-conditioners in vehicles registered on or after 1st January 1995 or intended for such vehicles; (ii) equipment for domestic or commercial refrigeration or air-conditioning installed on or after 1st January 1993, or heat pump equipment, which contains any chlorofluorocarbon substance as a refrigerant or in any insulating material of such equipment; (iii) refrigerators that have a compressor rating which exceeds one horsepower; (iv) non-pharmaceutical aerosol products; (v) insulation boards, panels or pipe covers; (vi) polystyrene sheets or finished products; (b) in the case of Halons, portable fire extinguishers; and (c) in the case of bromotrifluoromethane, fire protection systems with building plans approved after 17th June 1991 and installed after 31st December 1991.
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Chlorodifluoromethane	
Chlorodifluoropropane	
Chlorofluoroethane	
Chlorofluoromethane	
Chlorofluoropropane	
Chlorohexafluoropropane	
Chloropentafluoropropane	
Chlorotetrafluoroethane	
Chlorotetrafluoropropane	
Chlorotrifluoroethane	
Chlorotrifluoropropane	
Dichlorodifluoroethane	
Dichlorodifluoropropane	
Dichlorofluoroethane	
Dichlorofluoromethane	
Dichlorofluoropropane	
Dichloropentafluoropropane	
Dichlorotetrafluoropropane	
Dichlorotrifluoroethane	
Dichlorotrifluoropropane	
Hexachlorofluoropropane	
Pentachlorodifluoropropane	
Pentachlorofluoropropane	
Tetrachlorodifluoropropane	
Tetrachlorofluoroethane	
Tetrachlorofluoropropane	
Tetrachlorotrifluoropropane	
Trichlorodifluoroethane	
Trichlorodifluoropropane	

Trichlorofluoroethane	
Trichlorofluoropropane	
Trichlorotetrafluoropropane	
Trichlorotrifluoropropane	
(d) Hydrobromofluorocarbons, the following:	
Bromodifluoroethane	
Bromodifluoromethane	
Bromodifluoropropane	
Bromofluoroethane	
Bromofluoromethane	
Bromofluoropropane	
Bromohexafluoropropane	
Bromopentafluoropropane	
Bromotetrafluoroethane	
Bromotetrafluoropropane	
Bromotrifluoroethane	
Bromotrifluoropropane	
Dibromodifluoroethane	
Dibromodifluoropropane	
Dibromofluoroethane	
Dibromofluoromethane	
Dibromofluoropropane	
Dibromopentafluoropropane	
Dibromotetrafluoropropane	
Dibromotrifluoroethane	
Dibromotrifluoropropane	
Hexabromofluoropropane	
Pentabromodifluoropropane	
Pentabromofluoropropane	

	Tetrabromodifluoropropane Tetrabromofluoroethane Tetrabromofluoropropane Tetrabromotrifluoropropane Tribromodifluoroethane Tribromodifluoropropane Tribromofluoroethane Tribromofluoropropane Tribromotetrafluoropropane Tribromotrifluoropropane (e) Carbon tetrachloride (f) 1,1,1-trichloroethane (methyl chloroform) (g) Methyl bromide	
86)	Oleum	
87)	Orange II [sodium salt of p-(2-hydroxy-1-naphthylazo) benzenesulphonic acid]	Dye-indicators used in laboratories
88)	Organic peroxides	Car puttys; Substances and preparations containing not more than 3%, weight in weight, of organic peroxides; Solutions of not more than 60%, weight in weight, of methyl ethyl ketone peroxides and total aggregate weight of less than 50 kilograms of such solutions.
89)	Organo-tin compounds, the following: Compounds of fentin Cyhexatin Tributyl tin compounds	
90)	Paraquat; its salts	Preparation in pellet form containing not more than 5%, weight in weight, of salts of paraquat ion.
91)	Perchloromethyl mercaptan	Substances containing less than 1%, weight in weight, of perchloromethyl mercaptan
92)	Perfluorooctane sulfonate (PFOS)	

93)	Phenols, the following: Catechol Cresol Hydroquinone Octyl phenol Phenol Resorcinol	Preparations containing less than 1%, weight in weight, of phenols; Phenols which are intended for the treatment of human ailments and other medical purposes; Soaps for washing; Tar (coal or wood), crude or refined; Photographic solutions containing hydroquinone in individual containers containing not more than 15 kilograms each of such solutions and of aggregate weight of not more than 500 kilograms of such solutions.
94)	Phosgene	
95)	Phosphides	
96)	Phosphine	
97)	Phosphoric acid	Substances containing not more than 50%, weight in weight, of phosphoric acid.
98)	Phosphorus compounds used as pesticides (insecticides, acaricides, etc.), which includes but is not limited to: Chlorpyrifos Methamidophos Methyl-parathion Monocrotophos Parathion Phosphamidon	Acephate; Bromophos; Iodofenphos; Malathion; Pirimiphos-methyl; Temephos; Tetrachlorvinphos; Trichlorfon; Preparations containing not more than 0.5%, weight in weight, of chlorpyrifos and not containing any other phosphorus compound; Preparations containing not more than 0.5%, weight in weight, of dichlorvos and not containing any other phosphorus compound; Materials impregnated with dichlorvos and not containing any other phosphorus compound for slow release; Preparations containing not more than 1%, weight in weight, of azamethiphos and not containing any other phosphorus compound.
99)	Phosphorus oxybromide	
100)	Phosphorus oxychloride	

101)	Phosphorus pentabromide	
102)	Phosphorus pentachloride	
103)	Phosphorus pentafluoride	
104)	Phosphorus trichloride	
105)	Polybrominated biphenyls	
*106)	Polybrominated diphenyl ethers (PBDEs)	
107)	Polychlorinated biphenyls	
108)	Polychlorinated terphenyls	
109)	Potassium hydroxide	Substances containing not more than 17%, weight in weight, of potassium hydroxide; Accumulators; Batteries.
110)	Prochloraz	
111)	Pyrethroid compounds used as pesticides, the following: Fenvalerate	Formulated products containing Fenvalerate approved for household use and belonging to Table 5 of the WHO Recommended Classification of Pesticides by Hazard.
112)	Sodium azide	Air bag devices in motor vehicles
113)	Sodium hydroxide	Substances containing not more than 17%, weight in weight, of sodium hydroxide; Made-up formulated preparations either liquid or solid for biochemical tests.
114)	Sulphur in diesel intended for use in Singapore as fuel for motor vehicles or industrial plants	Sulphur in diesel in which the sulphur content is 0.005% or less by weight.
115)	Sulphur tetrafluoride	
116)	Sulphur trioxide	
117)	Sulphuric acid	Substances containing not more than 9%, weight in weight, of sulphuric acid; Accumulators; Batteries; Fire extinguishers; Photographic developers containing not more than 20%, weight in weight, of sulphuric acid.
118)	Sulphuryl chloride	
119)	Sulphuryl fluoride	
120)	Tetraethyl lead, tetramethyl lead and similar lead containing	

	compounds	
121)	Thallium; its salts	
122)	Titanium tetrachloride	
123)	Tris(2,3-dibromo-1-propyl)phosphate	
124)	Tungsten hexafluoride	

(List is updated as at 10 Aug 2011)

* Take effect from 01 Sep 2011

You may view or download the complete list of the PCD controlled chemicals sorted in the [numerical \(HS codes\)](#) or [alphabetical \(chemical names\)](#) order.

附件十

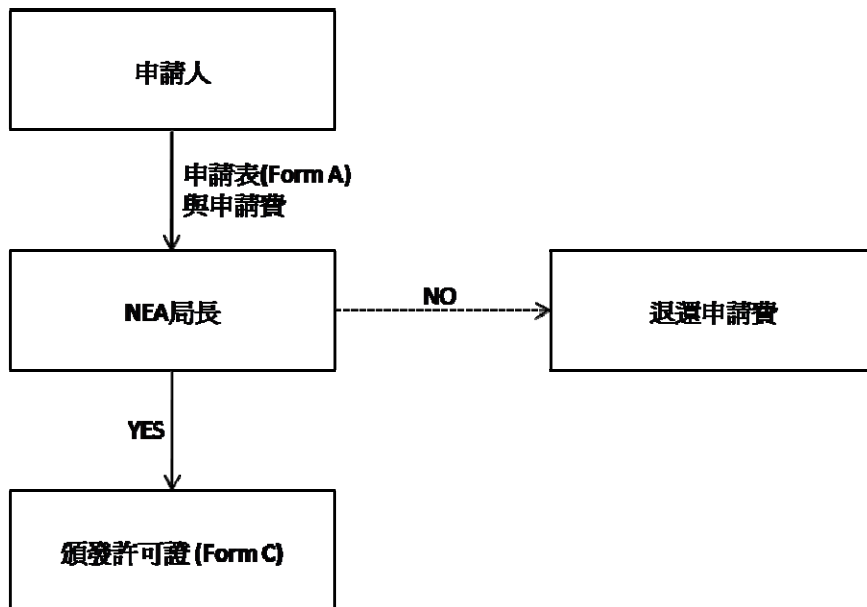
新加坡氰化氫(燻蒸)法

燻蒸劑之規範

燻蒸劑是指氰化氫、溴甲烷或磷化氫，燻蒸表示於場所(即任何建築物、車輛、船舶或密閉空間)使用燻蒸劑以控制害蟲。新加坡針對燻蒸劑以氰化氫(燻蒸)法(Hydrogen Cyanide (Fumigation) Act)規範。

一、註冊申請

對於燻蒸所使用的每一種燻蒸劑均須向新加坡 NEA 註冊申請許可證，其申請費為新幣 150 元(約台幣 3,495 元)，申請流程如下圖所示。



註：Form A 與 Form C 如 Hydrogen Cyanide (Fumigation) Act 本文所示

圖 燻蒸註冊申請流程

燻蒸許可證之申請人資格如下：

- (一) 出示經由合法醫師開立之證明，申請人無因使用燻蒸劑而得之疾病與危害自己或大眾
- (二) 申請許可證展延或經局長要求者須進行體檢
- (三) 提供前兩項資料與通過理論或實際測驗，予以證明申請人合適度

(四)擁有至少 6 個月的定期燻蒸經驗、12 個月的定期燻蒸經驗，或其他合法之目的

(五)上述第三點提及之理論或實際測驗，其費用為新幣 180 元(約台幣 4,194 元)

燻蒸許可證是由 NEA 局長直接審核頒發，若許可證持有人不適任時，局長亦可於任何時刻撤銷或廢止其燻蒸許可證。除此之外，燻蒸許可證的有效期間為通過註冊至次年的 12 月 31 日，而許可證之展延申請須於期滿的兩個月前進行，展延費為新幣 150 元(約台幣 3,495 元)。

二、燻蒸須知

(一)人員條件

燻蒸必須在工作人員監督下進行，且其中一名工作人員須為承辦單位以書面方式指派，除此之外，燻蒸人員中至少有兩人受過急救訓練。

(二)燻蒸公告

當有意圖燻蒸時，應向 NEA 取得燻蒸許可，並通知所有相關人員，其細節如下所列：

1.燻蒸申請

燻蒸業者在進行燻蒸之 24 小時前填妥公告申請單 (Form D 如 Hydrogen Cyanide (Fumigation) Act 本文所示)傳送給 NEA 局長或局長指派人員。若燻蒸場所為船舶，需將公告申請單副本交給新加坡海事與港務管理局局長。

2.燻蒸獲准

經由 NEA 局長獲准並發布公告 (Form F 如 Hydrogen Cyanide (Fumigation) Act 本文所示)之燻蒸行為才可採取行動，，每筆獲准費用為新幣 10 元(約台幣

233 元)。

3.公告對象

燻蒸業者必須以書面(公告副本)通知燻蒸場所與危險範圍之居住者或所有人，若燻蒸場所為船舶，需通知船長或負責人。除此之外，接獲通知者須簽署燻蒸同意書(Form E 如 Hydrogen Cyanide (Fumigation) Act 本文所示)並由業者保留。

(三)事前準備

- 1.確實檢查燻蒸場所與危險範圍之淨空
- 2.熄滅所有火源與暴露燈管
- 3.移除所有易吸附燻蒸劑之液體與食物
- 4.確實密封所有門窗與縫隙，防止燻蒸劑溢散
- 5.提供四種語言(英文、馬來文、中文與坦米爾語)之警告標語” 危險：有毒氣體：禁止進入”，貼於燻蒸場所或危險範圍之明顯地方
- 6.通知最近之警察局與消防隊

(四)事後處理

- 1.使燻蒸場地維持通風並於期限內確保脫離危險
- 2.於燻蒸場所做檢測(除嗅覺測試外)確保脫離危險，並繳交檢測報告給 NEA 局長
- 3.移除所有剩餘材料
- 4.開啟所有水龍頭至少一分鐘
- 5.淨空所有儲水箱並徹底清洗窪地
- 6.淨空所有可能吸附燻蒸劑或受氣體沉降之液體容器

7.搖晃或拍打所有可能吸附燻蒸劑或受氣體沉降之寢具、毛毯、衣物、椅墊或其他商品，直至脫離危險濃度範圍

燻蒸業者於實施以上事項後，即可向 NEA 局長通報 (Form G 如 Hydrogen Cyanide (Fumigation) Act 本文所示) 燻蒸場所已脫離危險，獲准開放。

【資料來源：Hydrogen Cyanide (Fumigation) Act 本文】

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HYDROGEN CYANIDE (FUMIGATION) ACT

(CHAPTER 132, SECTION 2)

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

History	G.N. NO. S 270/89	->	RG1 1990 REVISED EDITION
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[1st July 1989]

Arrangement of Provisions

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- 2 Definitions.
- 3 Duties of undertaker.
- 4 Fumigation by licensed undertaker and operator.
- 5 Application for licence.
- 6 Application for renewal of licence.
- 7 Licence.
- 8 Refusal of application.
- 9 Suspension or cancellation of licence.
- 10 Inspection of licence.
- 11 Licence granted to fit and proper persons.
- 12 Medical and other requirements.
- 13 Register of licence holders.
- 14 Fumigation to be carried out by adequate staff under supervision.
- 15 Safety requirements.
- 16 Notice of intention to fumigate premises and ships.
- 17 Notice of intention to fumigate to other concerned parties.
- 18 Warning signs.
- 19 Prohibited times for fumigation.
- 20 Operator to take charge of keys.
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THE SCHEDULE

Actual Provisions

Citation.

1. These Regulations may be cited as the Hydrogen Cyanide (Fumigation) Regulations.

Definitions.

2. In these Regulations —

"Agency" means the National Environment Agency established under the National Environment Agency Act (Cap. 195);

"authorised officer" means any person appointed by the Director-General under section 3 (2) of the Environmental Public Health Act (Cap. 95) to be an authorised officer;

"Director-General" means the Director-General of Public Health appointed under section 3 (1) of the Environmental Public Health Act;

"fumigant" means hydrogen cyanide, methyl bromide or hydrogen phosphide;

"fumigation" means the fumigation with hydrogen cyanide, methyl bromide or hydrogen phosphide of any premises or part thereof;

"fumigation area" means the premises or any part thereof undergoing fumigation;

"operator" means any person designated in writing by the undertaker to be in charge of the carrying out of a fumigation and duly licensed under these Regulations;

"premises" includes any building, vehicle, ship or enclosed space;

"risk area" means any part of a building, vehicle, ship or any other enclosed space into which there is any reason to apprehend that the fumigant may penetrate from the fumigation area, and in any case includes those parts of any building, vehicle, ship or other enclosed space which are less than 6 metres from the nearest boundary of any fumigation area unless separated therefrom by a yard, street, or other open space not less than 3 metres in width or by a solid wall, or two adjoining walls of a total thickness of not less than 50 centimetres;

"undertaker" means any person who, under contract or otherwise, undertakes the carrying out of a fumigation.

Duties of undertaker.

3. —(1) It shall be the duty of the undertaker —

(a) to observe the requirements of regulations 14, 16, 17 and 19;

(b) to take such steps as may be necessary to enable the operator to carry out the requirements of regulations 15, 18, 21, 22 and 23; and

(c) generally to exercise such supervision and take such steps as are within his power to secure the due observance of these Regulations by those engaged by him to carry out a fumigation.

(2) It shall be the duty of the operator to secure that the requirements of regulations 15, 18, 21, 22

and 23 are complied with and of all the persons employed in connection with the fumigation to co-operate with the operator for that purpose.

Fumigation by licensed undertaker and operator.

4. —(1) No undertaker shall carry out a fumigation except by means of an operator duly licensed in accordance with these Regulations.

(2) The operator referred to in paragraph (1) shall be separately licensed to carry out fumigation with hydrogen cyanide, methyl bromide or hydrogen phosphide.

Application for licence.

5. Every application for a licence to carry out fumigation with each fumigant shall be made to the Director-General in writing in the Form A set out in the Schedule, and shall be accompanied by a fee of \$150.

Application for renewal of licence.

6. Every application for the renewal of a licence to carry out fumigation with each fumigant shall be made to the Director-General in writing in the Form B set out in the Schedule, at least two months before the expiry of the current licence, and shall be accompanied by a fee of \$150.

Licence.

7. Every licence granted by the Director-General shall be in the Form C set out in the Schedule and shall unless sooner cancelled or suspended remain in force until the 31st December next following the date the licence was granted.

Refusal of application.

8. Where an application is refused, the fee accompanying the application shall be returned to the applicant.

Suspension or cancellation of licence.

9. The Director-General may, in his discretion, suspend for such period as he may think fit or cancel any licence at any time during the currency thereof if he is satisfied that the holder of the licence is not a fit and proper person to hold the licence.

Inspection of licence.

10. The holder of a licence shall produce the licence for inspection when required to do so by the Director-General or an authorised officer.

Licence granted to fit and proper persons.

11. The Director-General shall not grant a licence unless he is satisfied that the applicant therefor is a fit and proper person to carry out a fumigation as an operator.

Medical and other requirements.

12. Every applicant shall —

(a) produce a certificate of a registered medical practitioner showing that he is not suffering from any infirmity to render his use of a fumigant for the purpose of fumigation dangerous either to himself or to the public;

(b) undergo a further medical examination before a renewal of a licence is granted or when required to do so by the Director-General;

(c) furnish such particulars and pass such theoretical or practical test as the Director-General may require to satisfy himself that the applicant is a fit and proper person to be granted a licence;

(d) have had not less than 6 months regular experience of fumigating together with in addition 12 months regular experience of fumigating one or more of the following, namely, ships, buildings or produce and shall be otherwise competent for the purpose; and

(e) pay a fee of \$180 for the theoretical or practical test conducted under paragraph (c).

Register of licence holders.

13. The Director-General shall keep or cause to be kept a register in which shall be entered the name, address and such other particulars as he considers necessary of every person to whom a licence has been granted. The holder of a licence shall notify the Director-General in writing of any change of address within 7 days after the change.

Fumigation to be carried out by adequate staff under supervision.

14. —(1) Every fumigation shall be carried out by an adequate staff of which one member shall be designated in writing by the undertaker as the operator in charge of the fumigation.

(2) The fumigation staff shall in all cases include two persons both of whom shall be adequately trained in first-aid.

Safety requirements.

15. No person shall commence to fumigate any premises until —

(a) he has by personal inspection ascertained that all portions of the fumigation area and the risk area have been vacated;

(b) all fires and naked lights in the fumigation area have been extinguished;

(c) all liquids and foods which are liable to absorb the fumigant have been removed from the fumigation area; and

(d) all practical steps have been taken to seal all openings, cracks or crevices so as to prevent the escape of the fumigant from the fumigation area.

Notice of intention to fumigate premises and ships.

16. —(1) A person intending to fumigate any premises shall, at least 24 hours before commencing the fumigation, deliver a notice in the Form D set out in the Schedule to the Director-General or an authorised officer with, in the case of a ship, a copy of the notice to the Port Master of the Maritime and Port Authority of Singapore.

(2) Where it is for any reason impracticable to give the 24 hours' notice as required by this regulation, the Director-General or an authorised officer may authorise a shorter period of notice.

Notice of intention to fumigate to other concerned parties.

17. —(1) In addition to complying with regulation 16, every person intending to fumigate any premises shall, before commencing the fumigation, deliver a notice in writing —

(a)

(i) in the case of a building or other enclosed space — to the occupier of the building or other enclosed space; and

(ii) in the case of a ship — to the master or other person in charge of the ship; and

(b) to every occupier and tenant within the fumigation area and the risk area.

(2) Such notices shall be in duplicate and be in the Form E set out in the Schedule, and one copy of

the notice shall be signed by the person receiving the notice and shall be retained by the person issuing the notice.

Warning signs.

18. A person fumigating any premises shall —

- (a) close and securely fasten all doors or other means of access to the fumigation area and the risk area;
- (b) provide notices written in English, Malay, Chinese and Tamil containing in block letters not less than 5 centimetres in height the words “DANGER: POISON GAS: DO NOT ENTER” where they may readily be seen by any person approaching the fumigation area or the risk area; and
- (c) inform the nearest police station and the fire brigade.

Prohibited times for fumigation.

19. —(1) No person shall commence to fumigate any premises on any day or time without a permit from the Director-General. The fee payable to the Director-General for each such permit shall be \$10.

(2) The permit referred to in paragraph (1) shall be in the Form F set out in the Schedule.

(3) If fumigation is not commenced within the time specified in the permit, the person intending to fumigate shall serve again the notice required under regulation 16 and obtain a fresh permit.

(4) The Director-General may, in his discretion, refuse to grant a permit if in the interests of public health and safety the fumigation for which the permit is sought should not be carried out.

Operator to take charge of keys.

20. The operator shall take charge of all keys of any premises within the fumigation area and the risk area, and shall be responsible for the due observance of the requirements of these Regulations.

Method of use of fumigant.

21. The fumigant shall not be applied in such a manner as to be absorbed in liquid form by floors, walls, ceilings or household effects nor in such quantities as to exceed the concentration permitted by the Director-General for the fumigant.

First-aid and safety equipment.

22. After liberation of the fumigant has commenced and until the fumigation area and the risk area are free from danger —

- (a) any member of the fumigating staff being in any part of those areas shall have in his possession ready for immediate use an efficient mask or other apparatus which affords complete protection to the wearer against fumigant gas, and shall carry or have in his possession ready for immediate use an efficient electric torch; and
- (b) there shall be constantly available such first-aid appliances and remedies as the Director-General may from time to time require by written notice addressed to holders of licences.

Declaration of safety.

23. No person other than a member of the fumigating staff shall be permitted to enter the fumigation area after fumigation until both the fumigation area and the risk area are declared safe for re-entry by means of a written declaration in the Form G set out in the Schedule served by the operator on all persons to whom the notice required by regulation 17 has been served. No such declaration shall be given until —

- (a) the fumigation area has been ventilated in such a manner and for such period as shall be effective to secure that the area is free from danger;
- (b) it has been established by tests, other than the sense of smell that the premises are free from danger. For this purpose the operator shall be equipped with test papers or other means approved by the Director-General for objectively testing the atmosphere;
- (c) all residues of the materials used for fumigation have been removed;
- (d) all water taps have been turned on for at least one minute and the water allowed to run to waste;
- (e) all water closet cisterns have been emptied and the pans adequately flushed;
- (f) all other receptacles containing water or other liquid which is liable to absorb fumigant or gas arising therefrom have been emptied; and
- (g) all bedding, blankets, pillows, clothing, cushions and other articles which are liable to absorb the fumigant or gas arising therefrom have been well shaken or beaten or aired until they are free from any dangerous concentration of fumigant or gas arising therefrom.

Operator to keep a record.

24. The operator shall keep a record in the Form H set out in the Schedule in which shall be entered the particulars prescribed in that Form. The record shall be preserved in good condition and shall be produced if required by the Director-General or an authorised officer at any time during the period of validity of the licence.

Accidents.

25. In the event of the occurrence of any accident which occasions loss of human life or personal injury as the result of the fumigation of any premises, the operator shall immediately give notice of the accident to the Director-General or an authorised officer.

Fees payable to Agency

26. All fees collected under these Regulations shall be paid to the Agency.

THE SCHEDULE

Regulation 5

FORM A

HYDROGEN CYANIDE (FUMIGATION) ACT (CHAPTER 132)

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

APPLICATION FOR A LICENCE TO FUMIGATE BY MEANS OF HYDROGEN CYANIDE, METHYL BROMIDE OR HYDROGEN PHOSPHIDE

To:
THE DIRECTOR-GENERAL OF PUBLIC HEALTH
SINGAPORE

I hereby make application for a licence to carry out fumigation by means of
*Hydrogen Cyanide/Methyl Bromide/Hydrogen Phosphide.

Full name_____

Age_____ Business address_____

Statement of experience in fumigation_____

Statement of accidents or fatalities which have occurred during fumigation by me or
under my supervision_____

Date:_____

Signed_____

*Delete where inapplicable.

FORM B

Regulation 6

**HYDROGEN CYANIDE (FUMIGATION) ACT
(CHAPTER 132)**

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

**APPLICATION FOR RENEWAL OF A LICENCE
TO CARRY OUT FUMIGATION BY MEANS OF
HYDROGEN CYANIDE, METHYL BROMIDE
OR HYDROGEN PHOSPHIDE**

To:

The Director-General of Public Health,
Singapore

I hereby make application for the renewal of my Licence No. _____
dated _____ 19____ to carry out fumigation
by means of *Hydrogen Cyanide/Methyl Bromide/Hydrogen Phosphide.

Name of Licensee _____

Business address _____

Date: _____

Signed _____

*Delete where inapplicable.

FORM C

Regulation 7

**HYDROGEN CYANIDE (FUMIGATION) ACT
(CHAPTER 132)**

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

**LICENCE TO FUMIGATE BY MEANS OF
HYDROGEN CYANIDE, METHYL BROMIDE
OR HYDROGEN PHOSPHIDE**

This is to certify that _____
was on _____ licensed as a person competent to
carry out fumigation by means of *Hydrogen Cyanide/Methyl Bromide/Hydrogen
Phosphide.

This licence is valid until _____
(Date)

Date: _____

Director-General of Public Health,
Singapore

Licence Number _____

*Delete where inapplicable.

FORM D

Regulation 16 (1)

HYDROGEN CYANIDE (FUMIGATION) ACT (CHAPTER 132)

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

NOTICE OF INTENTION TO FUMIGATE BY MEANS OF HYDROGEN CYANIDE, METHYL BROMIDE OR HYDROGEN PHOSPHIDE

To:

The Director-General of Public Health,
Singapore.

Copy to:

The Port Master,

Maritime and Port Authority of Singapore

Please take notice that it is my intention to fumigate*

by means of †Hydrogen Cyanide/Methyl Bromide/Hydrogen Phosphide on_____

_____ commencing at _____ a.m./p.m.

and to ventilate the fumigant on_____

Name of Fumigator._____

Date:_____

Signed_____

(Company's name)

*Here state name or number and location of building, vessel or other enclosed space intended to be fumigated.

†Delete where inapplicable.

FORM E

Regulation 17 (2)

**HYDROGEN CYANIDE (FUMIGATION) ACT
(CHAPTER 132)**

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

**FUMIGATION BY MEANS OF HYDROGEN CYANIDE,
METHYL BROMIDE OR HYDROGEN PHOSPHIDE**

To:

Please take notice that it is my intention to fumigate*

by means of †Hydrogen Cyanide/Methyl Bromide/Hydrogen Phosphide on _____
_____ commencing at _____ a.m./p.m.

Date: _____

Signed _____

You are required to acknowledge receipt of this notice by signing the duplicate.

Date: _____

Signed _____

(Occupier)

*Here state name or number and location of building, vessel or other enclosed space intended to be fumigated.

†Delete where inapplicable.

FORM F

Regulation 19 (2)

**HYDROGEN CYANIDE (FUMIGATION) ACT
(CHAPTER 132)**

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

FUMIGATION PERMIT

.....

(Name of Fumigator)
of _____
(Name of registered company)
is hereby permitted to fumigate _____
(Name or number and location of building,

vessel or other enclosed space intended to be fumigated)
by means of _____
(Type of fumigant to be used)
on _____ commencing at _____ a.m./p.m.
(Date)

This Permit is not valid if fumigation is not commenced within _____
hours of the time specified above.

Date: _____

Director-General of General of Public Health,
Singapore

FORM G

Regulation 23

**HYDROGEN CYANIDE (FUMIGATION) ACT
(CHAPTER 132)**

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

DECLARATION OF SAFETY FOLLOWING FUMIGATION

To:

Please take notice that * _____

fumigated by me on _____ is now safe for re-entry.

Date: _____

Signed _____

*Here state name or number and location of
building, vessel or other enclosed space which has
been fumigated.

FORM H

Regulation 24

HYDROGEN CYANIDE (FUMIGATION) ACT (CHAPTER 132)

HYDROGEN CYANIDE (FUMIGATION) REGULATIONS

OPERATOR'S RECORD OF FUMIGATION BY MEANS OF HYDROGEN CYANIDE, METHYL BROMIDE OR HYDROGEN PHOSPHIDE

1. Address of premises fumigated_____
2. Time of commencing fumigation_____
- Date:_____ Hour:_____ a.m./p.m.
3. Notice required by regulations 16 and 17 delivered to —
 - (a)
 Date:_____ Time:_____ a.m./p.m.
 How delivered_____
 - (b) Occupier of building or other enclosed space fumigated or master or other person in charge of vessel fumigated, as the case may be.
 Date:_____ Time:_____ a.m./p.m.
 How delivered_____
 - (c) Occupiers and tenants within fumigation and risk area.
 Date:_____ Time:_____ a.m./p.m.
 How delivered_____
4.
 - (a) Have the fumigation and risk areas been vacated?
 - (b) Have all fires and naked lights within the fumigation area been extinguished?
 - (c) Have all moist food been removed from the fumigation area before fumigation?
 - (d) Have basement and ground floor windows been securely fastened?
 - (e) Have all openings been securely sealed?
 - (f) Have warning notices been displayed?

- (g) Are efficient masks carried by the fumigating staff?
 - (h) Have overalls been worn by fumigating staff?
 - (i) Is an efficient electric torch carried by fumigating staff?
5. (a) Has operator been in attendance throughout process of fumigation?
- (b) What tests have been made to establish safety of premises following fumigation?
- (c) Have residues been safely disposed of?
- (d) Have water taps and cisterns been flushed?
- (e) Has bedding, etc., been aired until free from danger?

6. Declaration of safety of premises delivered to_____

on_____ at_____ a.m./p.m.

Date:_____ Signed_____

(Operator)

Time_____

附件十一

新加坡殺蟲劑/驅蚊劑產品註冊清單

NEA Pesticides / Repellents Register

S/N	NEA Reg No	Company	Trade / Brand Name	Active Ingredient (S)	% w/w	Formulation	Reg Date
1	I-EmlCN/001/0001	Bentz Jaz Singapore Pte Ltd	Contend 2.5 EC	Deltamethrin	2.80	Emulsifiable Concentrate	17/06/1999
2	I-OilAE/002/0002	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Odourless Aerosol	Permethrin Tetramethrin	0.279 0.138	Oil-based Aerosol	27/09/1999
3	I-WtrAE/003/0003	Okada Ecotech Pte Ltd	VSAFE	Etofenprox	0.60	Water-based Aerosol	23/06/1999
4	I-OilEW/003/0004	Okada Ecotech Pte Ltd	Biovectrol - 10EW (Emulsion)	Etofenprox	10.0	Emulsion, oil in water	05/08/1999
5	I-OilEW/003/0005	Okada Ecotech Pte Ltd	Biovectrol - 20EW (Emulsion)	Etofenprox	20.0	Emulsion, oil in water	05/08/1999
6	I-OilEW/003/0006	Okada Ecotech Pte Ltd	Biovectrol - 30EW (Emulsion)	Etofenprox	30.0	Emulsion, oil in water	05/08/1999
7	I-OilAE/002/0007	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Odourless F Aerosol	Prallethrin D-Phenothrin	0.073 0.100	Oil-based Aerosol	27/09/1999
8	I-EmlPN/004/0008	Artilin Trading & Services (S) Pte Ltd	Vinycide Insecticide Paint	Deltamethrin Chlorpyrifos	0.23 0.50	Paint, emulsion	24/07/1999
9	I-LiqVP/005/0009	Tohtonku (S) Pte. Ltd.	Ars Refill	D-Allethrin	3.61	Liquid Vaporizer	25/04/2000
10	I-SlvAE/006/0010	Ecomist Singapore	Ecomist Insect Killer With Natural Pyrethrins	Pyrethrins	0.90	Solvent-based Aerosol	28/07/1999
11	I-EmlCN/007/0011	Bayer (South East Asia) Pte Ltd	Baygon EC 20	Propoxur	18.96	Emulsifiable Concentrate	15/07/1999
12	I-UlvLQ/007/0012	Bayer (South East Asia) Pte Ltd	Responsar ULV15	Cyfluthrin	1.73	Ultra-low Volume Liquid	17/07/1999
13	I-WetPD/007/0013	Bayer (South East Asia) Pte Ltd	Responsar 10WP	Cyfluthrin	10.0	Wettable Powder	17/07/1999
14	I-EmlCN/007/0014	Bayer (South East Asia) Pte Ltd	Responsar EC 050	Cyfluthrin	5.70	Emulsifiable Concentrate	17/07/1999
15	I-EmlCN/008/0015	Agro Technic Pte Ltd	Pynosect 10	Permethrin Tetramethrin	19.10 9.55	Emulsifiable Concentrate	22/07/1999
16	I-GrnRB/007/0017	Bayer (South East Asia) Pte Ltd	Baygon Fly Bait	Propoxur	1.00	Granular Bait	29/07/1999
17	R-PstRB/007/0018	Bayer (South East Asia) Pte Ltd	Racumin Paste	Coumatetralyl	0.0375	Paste Bait	29/07/1999
18	R-WaxRB/007/0019	Bayer (South East Asia) Pte Ltd	Racumin Rat Bait	Coumatetralyl	0.0375	Wax Block Bait	29/07/1999
19	I-SusCN/007/0020	Bayer (South East Asia) Pte Ltd	Responsar SC 125	Beta-Cyfluthrin	11.80	Suspension Concentrate	29/07/1999
20	I-OilAE/009/0021	Texchem Singapore Pte Ltd	Fumakilla Aerosol	Prallethrin D-Phenothrin	0.09 0.05	Oil-based Aerosol	05/08/1999
21	I-OilAE/009/0022	Texchem Singapore Pte Ltd	Fish Brand Aerosol	D-Allethrin D-Phenothrin	0.30 0.10	Oil-based Aerosol	05/08/1999
22	I-OilEW/007/0023	Bayer (South East Asia) Pte Ltd	Responsar EW050	Cyfluthrin	5.0	Emulsion, oil in water	05/08/1999
23	I-EmlCN/007/0024	Bayer (South East Asia) Pte Ltd	Baytex 50EC	Fenthion	50.0	Emulsifiable Concentrate	05/08/1999
24	R-TrkPD/007/0025	Bayer (South East Asia) Pte Ltd	Racumin Tracking Powder	Coumatetralyl	0.75	Tracking Powder	05/08/1999
25	I-SusCN/007/0026	Bayer (South East Asia) Pte Ltd	Starycide SC 480	Triflumuron	39.70	Suspension Concentrate	05/08/1999
26	I-GelRB/007/0027	Bayer (South East Asia) Pte Ltd	Premise Cockroach Bait	Imidacloprid	2.15	Gel Bait	05/08/1999
27	I-OilAE/002/0028	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Aerosol	Prallethrin D-Phenothrin	0.076 0.046	Oil-based Aerosol	02/08/2000
28	I-CoiVP/002/0030	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox King	d-Trans Allethrin (75/25)	0.15	Coil Vaporizer / Mosquito Coil	27/09/1999
29	I-WaxRB/002/0031	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Plus Nest Kill Superbaits	Chlorpyrifos	0.50	Wax Block Bait	20/10/1999
30	I-OilAE/002/0032	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Rapid Kill	Imiprothrin Cypermethrin	0.10 0.20	Oil-based Aerosol	18/07/2000
31	I-OilAE/002/0033	Reckitt Benckiser (Singapore) Pte Ltd	Hunter High Power Aerosol	Tetramethrin Deltamethrin	0.230 0.015	Oil-based Aerosol	18/07/2000

NEA Pesticides / Repellents Register

S/N	NEA Reg No	Company	Trade / Brand Name	Active Ingredient (S)	% w/w	Formulation	Reg Date
32	I-EmlCN/010/0034	Sumitomo Chemical Singapore Pte Ltd	Pesguard PS 102	D-Allethrin D-Phenothrin	5.0 5.0	Emulsifiable Concentrate	19/08/1999
33	I-EmlCN/010/0035	Sumitomo Chemical Singapore Pte Ltd	Pesguard FG161	D-Tetramethrin Cyphenothrin	4.43 13.30	Emulsifiable Concentrate	19/08/1999
34	I-SusCN/010/0036	Sumitomo Chemical Singapore Pte Ltd	Wazary 10FL	Fenvalerate	10.00	Suspension Concentrate	19/08/1999
35	I-SusCN/010/0037	Sumitomo Chemical Singapore Pte Ltd	Pesguard [alpha] 5FL	Esfenvalerate	4.90	Suspension Concentrate	19/08/1999
36	I-McpCN/010/0038	Sumitomo Chemical Singapore Pte Ltd	Gokilaht 10MC	Cyphenothrin	10.0	Micro-capsule Concentrate	19/08/1999
37	I-CoiVP/009/0039	Texchem Singapore Pte Ltd	Fish Mosquito Destroyer	D-Allethrin	0.20	Coil Vaporizer / Mosquito Coil	21/08/1999
38	I-CoiVP/009/0040	Texchem Singapore Pte Ltd	Fumakilla	D-Allethrin	0.30	Coil Vaporizer / Mosquito Coil	21/08/1999
39	I-CoiVP/009/0041	Texchem Singapore Private Limited	Jumbo	D-Allethrin	0.30	Coil Vaporizer / Mosquito Coil	21/08/1999
40	I-GrnRB/011/0042	Nison Industrial and Commercial Pte Ltd	Gold Cannon Once For All	Cypermethrin	0.10	Granular Bait	26/08/1999
41	I-FdpAE/007/0043	Bayer (South East Asia) Pte Ltd	Mafu Automatic Fog Dispenser	Dichlorvos	16.50	Fog Dispenser Aerosol	26/08/1999
42	R-ConGL/012/0044	Rentokil Initial Singapore Pte Ltd	Rentokil Fentrol	Difenacoum	0.10	Contact Gel	07/12/1999
43	R-TrkPD/012/0045	Rentokil Initial Singapore Pte Ltd	Rentokil Bromatrol Contact Dust	Bromadiolone	0.15	Tracking Powder	07/12/1999
44	P-ConGL/014/0050	Fair Chem Industries Pte Ltd	Enprotec Insect Repellent	N,N-Diethyltoluamide	75.00	Contact Gel	25/10/1999
45	I-McpEW/008/0052	Agro Technic Pte Ltd	Empire*20	Chlorpyrifos	20.00	Micro-capsule Emulsion	13/12/1999
46	P-SlvAE/015/0053	S.C. Johnson & Son Pte Ltd	Off! Insect Repellent II	N,N-Diethyl-Meta-Toluamide	14.25	Solvent-based Aerosol	29/11/1999
47	I-EmlCN/016/0055	Asiatic Agricultural Industries Pte Ltd	Vanish 50 EC	Fenthion	50.0	Emulsifiable Concentrate	24/01/2000
48	I-CoiVP/009/0056	Texchem Singapore Pte Ltd	Fish Mosquito Destroyer C	D-Trans Allethrin	0.10	Coil Vaporizer / Mosquito Coil	18/02/2000
49	I-EmlCN/016/0058	Asiatic Agricultural Industries Pte Ltd	Vigon 20 EC	Propoxur	20.0	Emulsifiable Concentrate	09/02/2000
50	I-TabRB/017/0059	Kenford Resources & Marketing Pte Ltd	"Golden Hammer" Cockroach Bait Station	Cypermethrin Borax	1.00 4.00	Tablet Bait	24/02/2000
51	I-IpgCH/017/0060	Kenford Resources & Marketing Pte Ltd	"Golden Hammer" Pesticide Chalk	Cypermethrin	1.00	Insecticide-impregnated Chalk	21/02/2000
52	I-MatVP/009/0064	Texchem Singapore Pte Ltd	Vape Mat F	D-Trans Allethrin	2.30	Mat Vaporizer	21/02/2000
53	I-MatVP/009/0065	Texchem Singapore Pte Ltd	Jumbo Mat	Prallethrin	1.80	Mat Vaporizer	29/02/2000
54	I-WtrAE/009/0066	Texchem Singapore Pte Ltd	H2O	S-Bioallethrin	0.30	Water-based Aerosol	21/02/2000
55	I-GrnRB/017/0068	Kenford Resources & Marketing Pte Ltd	"Golden Hammer" Ants and Cockroaches Killer	Borax Cypermethrin	4.00 1.00	Granular Bait	10/03/2000
56	I-FdpAE/008/0071	Agro Technic Pte Ltd	Pestigas	Pyrethrins	0.40	Fog Dispenser Aerosol	08/03/2000
57	I-LiqTN/018/0075	MSR Green Singapore	Richtetra	Tetramethrin	92.0	Technical, liquid	28/03/2000
58	I-LiqTN/018/0076	MSR Green Singapore	Richalpha	D-Allethrin	92.0	Technical, liquid	28/03/2000
59	I-UlvLQ/019/0078	Okada Trading Pte Ltd	Vectron - 30ULV	Etofenprox	30.0	Ultra-low Volume Liquid	03/04/2000
60	I-EmlCN/019/0079	Okada Trading Pte Ltd	Vectron - 10EC	Etofenprox	10.0	Emulsifiable Concentrate	03/04/2000
61	I-EmlCN/019/0080	Okada Trading Pte Ltd	Vectron - 20EC	Etofenprox	20.0	Emulsifiable Concentrate	03/04/2000
62	I-WetPD/019/0081	Okada Trading Pte Ltd	Vectron - 20WP	Etofenprox	20.0	Wettable Powder	04/04/2000

NEA Pesticides / Repellents Register

S/N	NEA Reg No	Company	Trade / Brand Name	Active Ingredient (S)	% w/w	Formulation	Reg Date
63	I-OilEW/003/0082	Okada Ecotech Pte Ltd	Biovectrol - 05EW	Etofenprox	5.00	Emulsion, oil in water	04/04/2000
64	I-WetPD/008/0084	Agro Technic Pte Ltd	Cyperkill 10WP	Cypermethrin	10.0	Wettable Powder	15/05/2000
65	I-WaxRB/002/0085	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Roach Kill	Chlorpyrifos	0.50	Wax Block Bait	18/07/2000
66	I-SusCN/007/0086	Bayer (South East Asia) Pte Ltd	Responsar SC 025	Beta-Cyfluthrin	2.20	Suspension Concentrate	25/05/2000
67	I-PstRB/020/0087	Diethelm Singapore Pte Ltd	Wipeout	Fipronil	0.05	Paste Bait	13/06/2000
68	I-PstRB/020/0088	Diethelm Singapore Pte Ltd	Combat Gold	Fipronil	0.05	Paste Bait	13/06/2000
69	R-GrnRB/009/0089	Texchem Singapore Pte Ltd	Fumakilla Dora	Coumatetralyl	0.05	Granular Bait	20/06/2000
70	R-GrnRB/009/0090	Rentokil Initial Singapore Pte Ltd	Rentokil Fentrol	Difenacoum	0.005	Granular Bait	13/07/2000
71	I-OilAE/021/0092	NTUC Fairprice Co-operative Limited	Fairprice Aerosol Insecticide	Propoxur Cyfluthrin	0.750 0.025	Oil-based Aerosol	19/07/2000
72	I-GelRB/022/0093	Rhodia Singapore Pte Ltd	Goliath Gel	Fipronil	0.05	Gel Bait	19/07/2000
73	I-MicGR/016/0094	Asiatic Agricultural Industries Pte Ltd	Spar 1% S.G.	Temephos	1.0	Micro Granule	19/07/2000
74	I-UlvLQ/001/0096	Bentz Jaz Singapore Pte Ltd	Bistar 1.5% ULV Liquid	Bifenthrin	1.50	Ultra-low Volume Liquid	25/07/2000
75	I-EmlCN/008/0097	Agro Technic Pte Ltd	Pynosect PCO 25EC	Permethrin	25.0	Emulsifiable Concentrate	28/07/2000
76	I-OilAE/002/0098	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Surface Spray	Tetramethrin Deltamethrin	0.230 0.015	Oil-based Aerosol	07/08/2000
77	I-OilAE/023/0099	Sara Lee Singapore Pte Ltd	Ridsect	Prallethrin D-Phenothrin	0.09 0.05	Oil-based Aerosol	08/08/2000
78	I-WtrAE/023/0100	Sara Lee Singapore Pte Ltd	Ridsect Ultra	Prallethrin D-Phenothrin	0.09 0.05	Water-based Aerosol	08/08/2000
79	I-SolPD/016/0101	Asiatic Agricultural Industries Pte Ltd	Neporex 50 SP	Cyromazine	50.0	Water-soluble Powder	14/08/2000
80	I-GrnRB/007/0103	Bayer (South East Asia) Pte Ltd	Quick Bayt	Imidacloprid	0.50	Granular Bait	22/08/2000
81	I-MicGR/025/0104	New Eastern (1971) Pte Ltd	Laevikil 1% Granule	Temephos	1.00	Micro Granule	22/08/2000
82	I-EmlCN/025/0105	New Eastern (1971) Pte Ltd	Laevikil 50 EC	Temephos	50.00	Emulsifiable Concentrate	22/08/2000
83	I-GrnRB/016/0106	Asiatic Agricultural Industries Pte Ltd	Snip	Azamethiphos	1.00	Granular Bait	28/08/2000
84	I-GrnRB/026/0107	Remy-Sato Agencies Pte Ltd	"Golden Rooster" Ants and Cockroaches Killer	Borax Cypermethrin	4.0 1.0	Granular Bait	30/08/2000
85	I-IpgCH/026/0108	Remy-Sato Agencies Pte Ltd	"Golden Rooster" Insecticide Chalk	Cypermethrin	1.0	Insecticide-impregnated Chalk	30/08/2000
86	I-EmlCN/025/0110	New Eastern (1971) Pte Ltd	Fentex 50 EC	Fenthion	50.0	Emulsifiable Concentrate	11/09/2000
87	I-SlvAE/027/0111	Ramroy Pte Ltd	Konk 1 Flying Insect Killer	Pyrethrins	0.970	Solvent-based Aerosol	12/09/2000
88	I-EmlCN/025/0113	New Eastern (1971) Pte Ltd	Chlorpyrifos 40% EC	Chlorpyrifos	40.0	Emulsifiable Concentrate	14/09/2000
89	I-WetPD/016/0115	Asiatic Agricultural Industries Pte Ltd	Alfacron 10 WP	Azamethiphos	10.0	Wettable Powder	21/09/2000
90	I-EmlCN/025/0116	New Eastern (1971) Pte Ltd	Newgone 20 EC	Propoxur	20.0	Emulsifiable Concentrate	21/09/2000
91	R-TrkPD/025/0117	New Eastern (1971) Pte Ltd	Newcumin Tracking Powder	Coumatetralyl	0.75	Tracking Powder	21/09/2000
92	I-MicGR/001/0118	Bentz Jaz Singapore Pte Ltd	Temephos Sand Granules	Temephos	1.0	Micro Granule	21/09/2000
93	I-EmlCN/001/0119	Bentz Jaz Singapore Pte Ltd	Bentacide 50 EC	Cypermethrin	5.0	Emulsifiable Concentrate	21/09/2000
94	I-EmlCN/001/0120	Bentz Jaz Singapore Pte Ltd	Bentacide 250 EC	Cypermethrin	25.0	Emulsifiable Concentrate	21/09/2000
95	I-MicEW/010/0121	Sumitomo Chemical Singapore Pte Ltd	Sumithrin 10SEC	D-Phenothrin	10.0	Micro Emulsion	21/09/2000
96	R-TrkPD/001/0123	Bentz Jaz Singapore Pte Ltd	Ditrac Tracking Powder	Diphacinone	0.20	Tracking Powder	28/09/2000
97	R-PelRB/001/0124	Bentz Jaz Singapore Pte Ltd	Contrac Rodenticide	Bromadiolone	0.005	Pelleted Bait	28/09/2000
98	I-EmlCN/025/0125	New Eastern (1971) Pte Ltd	Newcyper 6.5 EC	Cypermethrin	6.50	Emulsifiable Concentrate	29/09/2000

NEA Pesticides / Repellents Register

S/N	NEA Reg No	Company	Trade / Brand Name	Active Ingredient (S)	% w/w	Formulation	Reg Date
99	I-EmlCN/025/0126	New Eastern (1971) Pte Ltd	Newmala 84.3% EC	Malathion	84.30	Emulsifiable Concentrate	29/09/2000
100	I-EmlCN/028/0127	One Stop Habitat-Care Pte Ltd	Permakill Insecticide	Dichlorvos Chlorpyrifos	23.00 20.70	Emulsifiable Concentrate	02/10/2000
101	R-WaxRB/001/0128	Bentz Jaz Singapore Pte Ltd	Contrac All-Weather Blox	Bromadiolone	0.005	Wax Block Bait	03/10/2000
102	I-SusCN/001/0131	Bentz Jaz Singapore Pte Ltd	Strike 10 SC	Deltamethrin	1.00	Suspension Concentrate	10/10/2000
103	I-OilAE/030/0133	Lian Soon Siong Trading Co.	3-Trad SP	S-bioallethrin	0.30	Oil-based Aerosol	17/10/2000
104	I-WetPD/025/0134	New Eastern (1971) Pte Ltd	Newthion 40 WP	Fenitrothion	40.0	Wettable Powder	21/10/2000
105	I-EmlCN/025/0135	New Eastern (1971) Pte Ltd	Newcyper 15 EC	Cypermethrin	15.0	Emulsifiable Concentrate	21/10/2000
106	I-FdpAE/025/0136	New Eastern (1971) Pte Ltd	Newfu Plus Total Release Aerosol Dispenser	Dichlorvos	16.5	Fog Dispenser Aerosol	21/10/2000
107	I-IpgPA/031/0137	Jickson Corporation Pte Ltd	Pretty Please Bug Kill Shelf Paper	Propoxur	1.0	Insecticide-impregnated Paper	23/10/2000
108	I-IpgPA/031/0138	Jickson Corporation Pte Ltd	MLady No Bugs	Propoxur	1.0	Insecticide-impregnated Paper	23/10/2000
109	I-EmlCN/016/0139	Asiatic Agricultural Industries Pte Ltd	Spar 50 EC	Temephos	50.0	Emulsifiable Concentrate	24/10/2000
110	I-EmlCN/016/0140	Asiatic Agricultural Industries Pte Ltd	Able	Cypermethrin	5.04	Emulsifiable Concentrate	24/10/2000
111	I-OilAE/025/0141	New Eastern (1971) Pte Ltd	Killmaster	D-allethrin Tetramethrin	0.20 0.30	Oil-based Aerosol	25/10/2000
112	I-OilAE/025/0142	New Eastern (1971) Pte Ltd	Gaspestis	D-allethrin Permethrin	0.30 0.30	Oil-based Aerosol	28/10/2000
113	I-CoiVP/023/0143	Sara Lee Singapore Pte Ltd	Ridsect Lingkaran Nyamuk 1	d-allethrin	0.20	Coil Vaporizer / Mosquito Coil	28/10/2000
114	I-OilAE/030/0144	Lian Soon Siong Trading Company	Kilsecpo Power	Prallethrin D-phenothrin	0.100 0.075	Oil-based Aerosol	30/10/2000
115	I-GrnRB/001/0146	Bentz Jaz Singapore Pte Ltd	Fly Gone	Propoxur	1.0	Granular Bait	07/11/2000
116	I-MicEW/016/0147	Asiatic Agricultural Industries Pte Ltd	Value	Cypermethrin	5.0	Micro Emulsion	09/11/2000
117	I-WetPD/016/0148	Asiatic Agricultural Industries Pte Ltd	Alfacron Plus 10 WP	Azamethiphos	10.0	Wettable Powder	09/11/2000
118	P-LiqLT/032/0149	Johnson & Johnson Pte Ltd	Johnson's Baby Clear Lotion Anti-Mosquito	Ethyl Butylacetyl amino - propionate	12.50	Liquid Lotion	05/12/2000
119	I-SlvAE/002/0150	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Fast Kill	prallethrin d-phenothrin tetramethrin	0.056 0.096 0.216	Solvent-based Aerosol	15/11/2000
120	I-OilAE/002/0151	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Lure 'n' Kill	Cypermethrin Imiprothrin	0.199 0.070	Oil-based Aerosol	16/11/2000
121	I-SlvAE/027/0152	Ramroy Pte Ltd	Konk 1 HH Flying Insect Killer	Pyrethrins	0.974	Solvent-based Aerosol	22/11/2000
122	I-OilAE/002/0153	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Odourless CIK	Imiprothrin Permethrin	0.015 0.279	Oil-based Aerosol	27/11/2000
123	I-WtrAE/002/0154	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Seek 'N' Kill	Bioallethrin Bioresmethrin	0.209 0.039	Water-based Aerosol	27/11/2000
124	I-SlvAE/002/0155	Reckitt Benckiser (Singapore) Pte Ltd	Hunter Aerosol	Prallethrin D-Phenothrin	0.042 0.096	Solvent-based Aerosol	27/11/2000

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125	I-SlvAE/002/0156	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Knockdown	Prallethrin D-phenothrin	0.042 0.096	Solvent-based Aerosol	28/11/2000
126	I-MatVP/002/0157	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Supermat	Prallethrin	0.900	Mat Vaporizer	30/11/2000
127	I-EmlCN/016/0158	Asiatic Agricultural Industries Pte Ltd	Flash	Malathion	84.30	Emulsifiable Concentrate	11/12/2000
128	I-WdsGR/016/0159	Asiatic Agricultural Industries Pte Ltd	Agita 10 WG	Thiamethoxam	10.0	Water-dispersible Granule	15/12/2000
129	I-OilAE/034/0162	Texchem Consumers (S) Pte Ltd	Fumakilla Roach Killer	Imiprothrin Permethrin	0.30 0.50	Oil-based Aerosol	29/01/2001
130	I-OilAE/034/0163	Texchem Consumers (S) Pte Ltd	Fumakilla Power	D,D-T-cyphenothrin Imiprothrin Deltamethrin	0.15 0.10 0.02	Oil-based Aerosol	29/01/2001
131	I-OilAE/034/0164	Texchem Consumers (S) Pte Ltd	Fumakilla Super	Imiprothrin D,D-T-Cyphenothrin	0.30 0.15	Oil-based Aerosol	29/01/2001
132	I-UlvLQ/001/0165	Bentz Jaz Singapore Pte Ltd	Pythrin 33	Pyrethrins	0.38	Ultra-low Volume Liquid	31/01/2001
133	I-GrnRB/016/0167	Asiatic Agricultural Industries Pte Ltd	Agita 1 GB	Thiamethoxam	1.0	Granular Bait	07/02/2000
134	I-PstRB/028/0168	One Stop Habitat-Care Pte Ltd	SPM Professional Roach Bait	Boron as Boric Acid	5.80	Paste Bait	12/02/2001
135	I-IpgPA/035/0169	Lianly Enterprises Co	No Bugs M'lady	Propoxur	1.0	Insecticide-impregnated Paper	13/02/2001
136	I-IpgPA/036/0170	Hock Seng Food Pte Ltd	No Bugs M'lady	Propoxur	1.0	Insecticide-impregnated Paper	13/02/2001
137	I-WtrAE/034/0173	Texchem Consumers (S) Pte Ltd	H2O	S-bioallethrin	0.304	Water-based Aerosol	15/02/2001
138	I-OilAE/034/0174	Texchem Consumers (S) Pte Ltd	Fumakilla Aerosol	Prallethrin D-phenothrin	0.090 0.050	Oil-based Aerosol	15/02/2001
139	I-CoiVP/034/0175	Texchem Consumers (S) Pte Ltd	Jumbo	d-allethrin	0.30	Coil Vaporizer / Mosquito Coil	15/02/2001
140	I-CoiVP/034/0176	Texchem Consumers (S) Pte Ltd	Fumakilla	D-allethrin	0.30	Coil Vaporizer / Mosquito Coil	15/02/2001
141	I-MatVP/034/0177	Texchem Consumers (S) Pte Ltd	Vape Mat F	d-trans allethrin	2.344	Mat Vaporizer	16/02/2001
142	I-MatVP/034/0178	Texchem Consumers (S) Pte Ltd	Jumbo Mat	prallethrin	1.794	Mat Vaporizer	16/02/2001
143	I-OilAE/034/0179	Texchem Consumers (S) Pte Ltd	Fumakilla All Insect Killer	prallethrin d-phenothrin permethrin	0.090 0.050 0.100	Oil-based Aerosol	21/02/2001
144	I-EmlCN/037/0180	Guardian Laboratories Pte Ltd	Gesponsa	Cypermethrin	5.04	Emulsifiable Concentrate	22/02/2001
145	I-IpgPA/038/0181	Fong Ann Hang Enterprises Pte Ltd	No Bugs M'lady	Propoxur	1.0	Insecticide-impregnated Paper	23/02/2001
146	I-WetPD/001/0182	Bentz Jaz Singapore Pte Ltd	Residex P25 WP	Permethrin	25.0	Wettable Powder	24/02/2001
147	I-MatVP/034/0183	Texchem Consumers (S) Pte Ltd	Vape Mat	d-allethrin	3.96	Mat Vaporizer	26/02/2001
148	I-GelRB/007/0185	Bayer (South East Asia) Pte Ltd	Blattanex Ultra Gel	Imidacloprid	2.150	Gel Bait	13/03/2001
149	P-LiqLT/007/0187	Bayer (South East Asia) Pte Ltd	Autan Active Pump Spray	Hydroxyethyl Isobutyl Piperidine Carboxylate	20.0	Liquid Lotion	16/03/2001
150	P-CrmLT/032/0191	Johnson & Johnson Pte Ltd	Johnson's Baby Moisturizing Lotion Anti-Mosquito	Ethyl Butylacetylaminio - propionate	12.5	Cream Lotion	14/04/2001

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151	I-AquSU/040/0192	Origin Exterminators Pte Ltd	Vectobac 12 AS	Bacillus thuringiensis subsp. israelensis, serotype H-14 (fermentation slurry)	85.70	Aqueous Suspension	16/04/2001
152	I-SusCN/041/0195	BASF Singapore Pte Ltd	Tenopa SC	Alpha-cypermethrin Flufenoxuron	2.94 2.94	Suspension Concentrate	22/05/2001
153	I-MicGR/041/0197	BASF Singapore Pte Ltd	Abate 1 SG	Temephos	1.10	Micro Granule	15/06/2001
154	I-CoiVP/034/0198	Texchem Consumers (S) Pte Ltd	Fish Mosquito Destroyer	d-allethrin	0.200	Coil Vaporizer / Mosquito Coil	19/06/2001
155	I-CoiVP/034/0199	Texchem Consumers (S) Pte Ltd	Fish Mosquito Destroyer C	d-trans allethrin	0.093	Coil Vaporizer / Mosquito Coil	19/06/2001
156	I-GelRB/041/0200	BASF Singapore Pte Ltd	Siege	Hydramethylnon	2.05	Gel Bait	20/06/2001
157	I-SusCN/041/0201	BASF Singapore Pte Ltd	Fendona 10 SC	alphacypermethrin	10.00	Suspension Concentrate	20/06/2001
158	I-PstRB/012/0203	Rentokil Initial Singapore Pte Ltd	Chlorpyrifos Paste	Chlorpyrifos	0.05	Paste Bait	23/07/2001
159	R-WaxRB/041/0204	BASF Singapore Pte Ltd	Storm	Flocoumafen	0.005	Wax Block Bait	26/07/2001
160	I-SusCN/041/0205	BASF Singapore Pte Ltd	Fendona 1.5 SC	Alphacypermethrin	1.47	Suspension Concentrate	26/07/2001
161	P-SlvAE/042/0206	The Boots Company (Far East) Pte Ltd	Repel Plus Insect Repellent Spray	Diethyltoluamide	20.0	Solvent-based Aerosol	03/08/2001
162	P-GelLT/042/0207	The Boots Company (Far East) Pte Ltd	Repel Plus Insect Repellent Gel	Diethyltoluamide	20.0	Gel Lotion	03/08/2001
163	I-OilAE/002/0208	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Cockroach Control	Cypermethrin Imiprothrin	0.200 0.070	Oil-based Aerosol	08/08/2001
164	I-WtrAE/002/0209	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Target	Bioallethrin Bioresmethrin	0.209 0.039	Water-based Aerosol	08/08/2001
165	I-SlvAE/002/0210	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Fast Knockdown	Prallethrin D-Phenothrin Tetramethrin	0.056 0.096 0.216	Solvent-based Aerosol	08/08/2001
166	I-EmlCN/043/0211	G-Chem (Singapore) Pte Ltd	Cytrex	Cypermethrin	5.04	Emulsifiable Concentrate	21/08/2001
167	I-MicEW/043/0212	G-Chem (Singapore) Pte Ltd	Citrin	Cypermethrin	5.00	Micro Emulsion	21/08/2001
168	I-GelRB/016/0213	Asiatic Agricultural Industries Pte Ltd	Sieze	Propoxur	2.00	Gel Bait	28/08/2001
169	I-LiqVP/034/0214	Texchem Consumers (S) Pte Ltd	Vape Liquid -SL	Prallethrin	1.764	Liquid Vaporizer	28/08/2001
170	I-LiqVP/034/0215	Texchem Consumers (S) Pte Ltd	Vape Liquid	Prallethrin	0.882	Liquid Vaporizer	28/08/2001
171	I-SlvAE/002/0216	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Multi Kill	Prallethrin D-Phenothrin Tetramethrin	0.056 0.096 0.216	Solvent-based Aerosol	11/09/2001
172	R-WaxRB/016/0217	Asiatic Agricultural Industries Pte Ltd	Roban	bromadiolone	0.005	Wax Block Bait	04/10/2001
173	I-LiqVP/005/0218	Tohtonku (S) Pte. Ltd.	ARS No Mat P	Prallethrin	0.860	Liquid Vaporizer	27/10/2001
174	I-LiqVP/005/0219	Tohtonku (S) Pte. Ltd.	ARS No Mat Q	Prallethrin	2.470	Liquid Vaporizer	27/10/2001
175	I-LiqVP/005/0220	Tohtonku (S) Pte. Ltd.	ARS No Mat SQ	Prallethrin	1.680	Liquid Vaporizer	27/10/2001
176	I-GrnRB/044/0221	Three Stars Umbrella Factory	Top Gun	Cypermethrin Borax	0.1 4.0	Granular Bait	28/11/2001
177	I-EmlCN/029/0222	Zagro Singapore Pte Ltd	Jentik-Jentik 50	Temephos Technical (90%)	55.55	Emulsifiable Concentrate	12/12/2001
178	I-GrnRB/007/0223	Bayer (South East Asia) Pte Ltd	Quick Bayt D	Imidacloprid	0.500	Granular Bait	13/12/2001

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179	I-MicGR/045/0224	Best Chemical Co (S) Pte Ltd	Mosquito Killer	Bacillus thuringiensis subsp. israelensis, serotype H-14 (7000 ITU/ Mg)	2.860	Micro Granule	13/12/2001
180	I-EmlCN/046/0225	Syngenta Asia Pacific Pte Ltd	Actellic 50 EC	Pirimiphos Methyl	48.50	Emulsifiable Concentrate	14/12/2001
181	I-MicGR/045/0226	Best Chemical Co (S) Pte Ltd	Mosquito Killer	Bacillus thuringiensis subsp. israelensis, serotype H-14 (7000 ITU/ Mg)	2.860	Micro Granule	24/12/2001
182	I-EmlCN/008/0227	Agro Technic Pte Ltd	Pirimifog 50 EC	Pirimiphos-Methyl	50.20	Emulsifiable Concentrate	13/04/2002
183	I-OilAE/034/0228	Texchem Consumers (S) Pte Ltd	Fish Brand Aerosol	D-Allethrin D-Phenothrin	0.297 0.101	Oil-based Aerosol	06/05/2002
184	P-LiqLT/015/0229	S.C. Johnson & Son Pte Ltd	OFF! Insect Repellent Lotion	Diethyltoluamide	7.50	Liquid Lotion	09/05/2002
185	P-LiqLT/015/0230	S.C. Johnson & Son Pte Ltd	OFF! Insect Repellent Spray	Diethyltoluamide	7.00	Liquid Lotion	09/05/2002
186	I-WaxRB/023/0231	Sara Lee Singapore Pte Ltd	Ridsect Cockroach Baits	Fenitrothion	5.0	Wax Block Bait	06/06/2002
187	I-MicGR/041/0232	BASF Singapore Pte Ltd	Abate 1 SG	Temephos	1.1	Micro Granule	09/07/2002
188	I-WtrAE/003/0233	Okada Ecotech Pte Ltd	VSAFE Hand Spray	Etofenprox	0.6	Water-based Aerosol	28/08/2002
189	I-WtrAE/003/0234	Okada Ecotech Pte Ltd	VSAFE Hand Spray (Extra Strength)	Etofenprox	1.250	Water-based Aerosol	28/08/2002
190	I-WtrAE/003/0235	Okada Ecotech Pte Ltd	VSAFE Extra Strength Aerosol Spray	Etofenprox	1.250	Water-based Aerosol	10/09/2002
191	I-LiqTN/047/0236	MSR Green Corporation (S) Pte Ltd	Richpra	Prallethrin	90.00	Technical, liquid	18/10/2002
192	I-LiqTN/048/0237	Sumitomo Chemical Singapore Pte Ltd	Cypermethrin	Cypermethrin	93.00	Technical, liquid	30/10/2002
193	I-LiqTN/048/0238	Sumitomo Chemical Singapore Pte Ltd	Cypermethrin	Cypermethrin	93.00	Technical, liquid	30/10/2002
194	I-LiqTN/048/0239	Sumitomo Chemical Singapore Pte Ltd	Cypermethrin	Cypermethrin	93.00	Technical, liquid	30/10/2002
195	I-LiqTN/048/0240	Sumitomo Chemical Singapore Pte Ltd	Permethrin 25/75	Permethrin 25/75	93.00	Technical, liquid	30/10/2002
196	I-LiqTN/048/0241	Sumitomo Chemical Singapore Pte Ltd	Permethrin 25/75	Permethrin 25-75	93.00	Technical, liquid	30/10/2002
197	I-LiqTN/048/0242	Sumitomo Chemical Singapore Pte Ltd	Permethrin 25/75	Permethrin	93.00	Technical, liquid	30/10/2002
198	I-LiqTN/048/0243	Sumitomo Chemical Singapore Pte Ltd	Esbiol	S-bioallethrin	95.00	Technical, liquid	30/10/2002
199	I-LiqTN/048/0244	Sumitomo Chemical Singapore Pte Ltd	Esbiol	S-bioallethrin	95.00	Technical, liquid	30/10/2002
200	I-LiqTN/048/0245	Sumitomo Chemical Singapore Pte Ltd	Bioallethrin	Bioallethrin	93.00	Technical, liquid	30/10/2002
201	I-LiqTN/048/0246	Sumitomo Chemical Singapore Pte Ltd	Bioallethrin	Bioallethrin	93.00	Technical, liquid	30/10/2002
202	I-EmlCN/049/0247	Ecolab Pte Ltd	Pestgard Residual Insecticide	Permethrin 25:75	48.12	Emulsifiable Concentrate	17/12/2002
203	I-LiqTN/047/0248	MSR Green Corporation (S) Pte Ltd	Rich-Dpheno	D-Phenothrin	90.00	Technical, liquid	06/01/2003
204	I-PstRB/050/0249	Diethelm Singapore Pte Ltd	Combat Roach Killer	Fipronil	0.050	Paste Bait	27/01/2003
205	I-IpgCH/051/0250	Gruntek International	Magik Lines Chalk	Cypermethrin	1.000	Insecticide-impregnated Chalk	30/01/2003
206	I-SlvAE/002/0251	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Ultra	Imiprothrin (50%) D-Phenothrin (92%)	0.080 0.109	Solvent-based Aerosol	30/01/2003
207	P-CrmLT/015/0252	S.C. Johnson & Son Pte Ltd	Autan Family Cream Lotion	Hydroxyethyl Isobutyl Piperidine Carboxylate	10.00	Cream Lotion	18/02/2003

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208	P-SlvAE/015/0253	S.C. Johnson & Son Pte Ltd	Autan Active Body Spray	Hydroxyethyl Isobutyl Piperidine Carboxylate	16.00	Solvent-based Aerosol	18/02/2003
209	P-LiqLT/015/0254	S.C. Johnson & Son Pte Ltd	Autan Active Pump Spray	Hydroxyethyl Isobutyl Piperidine Carboxylate	20.00	Liquid Lotion	18/02/2003
210	I-GelRB/052/0255	Giltex International Marketing	Top Bait Cockroach Gel	Propoxur	1.0	Gel Bait	18/02/2003
211	P-CrmLT/015/0256	S.C. Johnson & Son Pte Ltd	Autan Family Cream Lotion	Hydroxyethyl Isobutyl Piperidine Carboxylate	10.00	Cream Lotion	18/02/2003
212	P-SlvAE/015/0257	S.C. Johnson & Son Pte Ltd	Autan Active Body Spray	Hydroxyethyl Isobutyl Piperidine Carboxylate	16.00	Solvent-based Aerosol	18/02/2003
213	P-LiqLT/015/0258	S.C. Johnson & Son Pte Ltd	Autan Active Pump Spray	Hydroxyethyl Isobutyl Piperidine Carboxylate	20.00	Liquid Lotion	18/02/2003
214	P-SlvAE/015/0259	S.C. Johnson & Son Pte Ltd	Autan Classic Aerosol Spray	Diethyltoluamide	16.0	Solvent-based Aerosol	19/02/2003
215	P-CrmLT/015/0260	S.C. Johnson & Son Pte Ltd	Autan Classic Cream Lotion	Diethyltoluamide	15.0	Cream Lotion	19/02/2003
216	I-OilEW/016/0261	Asiatic Agricultural Industries Pte Ltd	Malanon 95%	Malathion	95.00	Emulsion, oil in water	19/02/2003
217	I-GelVP/015/0262	S.C. Johnson & Son Pte Ltd	Baygon Master	transfluthrin	37.5000	Gel Vaporiser	20/02/2003
218	I-OilAE/015/0263	S.C. Johnson & Son Pte Ltd	Baygon All Insect Killer	Propoxur Cyfluthrin	0.750 0.025	Oil-based Aerosol	20/02/2003
219	I-WtrAE/015/0264	S.C. Johnson & Son Pte Ltd	Baygon Mosquito Killer	Transfluthrin Cyfluthrin	0.040 0.025	Water-based Aerosol	20/02/2003
220	I-CoiVP/015/0265	S.C. Johnson & Son Pte Ltd	Baygon Mosquito Coil	transfluthrin	0.030	Coil Vaporizer / Mosquito Coil	20/02/2003
221	I-MatVP/015/0266	S.C. Johnson & Son Pte Ltd	Baygon Mosquito Mat	d-allethrin	5.000	Mat Vaporizer	20/02/2003
222	I-TabRB/015/0267	S.C. Johnson & Son Pte Ltd	Baygon Roach Bait Station	Chlorpyrifos	0.500	Tablet Bait	20/02/2003
223	I-TabRB/015/0268	S.C. Johnson & Son Pte Ltd	Baygon Roach Bait Station	Chlorpyrifos	0.500	Tablet Bait	21/02/2003
224	I-LiqVP/015/0269	S.C. Johnson & Son Pte Ltd	baygon genius	Bio-allethrin	3.600	Liquid Vaporizer	21/02/2003
225	I-IpgCH/053/0270	Matsben Corporation Pte Ltd	Terminator	Cypermethrin	1.0	Insecticide-impregnated Chalk	19/02/2003
226	I-WaxRB/002/0271	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Nest Kill	Chlorpyrifos (99%) Chlorpyrifos (20% microencapsulated)	0.353 0.753	Wax Block Bait	21/02/2003
227	I-LiqVP/002/0272	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Liquid	Esbiothrin	2.60	Liquid Vaporizer	25/02/2003
228	I-MatVP/002/0273	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Red Mats	Prallethrin (90%)	0.990	Mat Vaporizer	26/02/2003
229	I-OilAE/054/0274	Maya Manufacturing & Trading Co. Pte Ltd	Mosfly Insect Killer	D-Tetramethrin Cyphenothrin	0.100 0.300	Oil-based Aerosol	27/02/2003
230	I-EmlCN/039/0275	Equitech Pesticides & Equipment Trading	Cyperstrike 100	cypermethrin	10.00	Emulsifiable Concentrate	12/03/2003
231	I-MicGR/010/0276	Sumitomo Chemical Singapore Pte Ltd	Vectobac G Biological Larvicide	Bacillus thuringiensis israelensis	2.80	Micro Granule	21/03/2003
232	I-WtrAE/002/0277	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Hunter	Bioallethrin Bioresmethrin	0.209 0.039	Water-based Aerosol	24/03/2003
233	P-LiqLT/055/0278	Sato Pharmaceutical (S) Pte Ltd	Tact For Removal Of Insects	N,N-Diethyl-m-Toluamide	12.10	Liquid Lotion	02/03/2003
234	P-SlvAE/055/0279	Sato Pharmaceutical (S) Pte Ltd	Tact For Insect Repellent Spray	N,N-Diethyl-m-Toluamide	12.10	Solvent-based Aerosol	02/04/2003
235	I-LiqTN/048/0280	Sumitomo Chemical Singapore Pte Ltd	Gokilaht-S	D,d-T-cyphenothrin	93.00	Technical, liquid	11/04/2003

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236	I-EmlCN/039/0281	Equitech Pesticides & Equipment Trading	Zymethrin 500	Cypermethrin	5.00	Emulsifiable Concentrate	17/04/2003
237	I-WdsGR/048/0283	Sumitomo Chemical Singapore Pte Ltd	VectoBac WG Biological Larvicide	Bacillus thuringiensis israelensis, Strain H14 fermentation solids & solubles	37.40	Water-dispersible Granule	24/04/2003
238	I-LiqTN/048/0284	Sumitomo Chemical Singapore Pte Ltd	SumiOne Technical Grade	Metofluthrin	93.00	Technical, liquid	26/04/2003
239	I-EmlCN/048/0285	Sumitomo Chemical Singapore Pte Ltd	SumiOne 5EC	Metofluthrin	5.00	Emulsifiable Concentrate	06/05/2003
240	I-WslGR/057/0286	Agsin Pte Ltd	Vactor 1G	Temephos	1.00	Micro Granule	08/05/2003
241	I-LiqTN/048/0287	Sumitomo Chemical Singapore Pte Ltd	Esbiothrin	d-Trans Allethrin 75/25	93.00	Technical, liquid	13/05/2003
242	I-LiqTN/048/0288	Sumitomo Chemical Singapore Pte Ltd	Esbiothrin	d-Trans Allethrin 75/25	93.00	Technical, liquid	20/05/2003
243	I-EmlCN/046/0289	Syngenta Asia Pacific Pte Ltd	Actellic 50 EC	Pyrimiphos-methyl	49.02	Emulsifiable Concentrate	21/05/2003
244	I-WdsGR/048/0290	Sumitomo Chemical Singapore Pte Ltd	Vectolex WG	Bacillus sphaericus, strain 2362 (650 BS ITU/mg)	51.20	Water-dispersible Granule	02/06/2003
245	I-GelRB/007/0291	Bayer (South East Asia) Pte Ltd	Maxforce Gold	flupronil	0.03	Gel Bait	05/06/2003
246	I-LiqTN/048/0292	Sumitomo Chemical Singapore Pte Ltd	Bioresmethrin	Bioresmethrin	93.00	Technical, liquid	17/06/2003
247	I-LiqTN/048/0293	Sumitomo Chemical Singapore Pte Ltd	Bioresmethrin (Bilaq)	Bioresmethrin	93.00	Technical, liquid	17/06/2003
248	I-LiqTN/048/0294	Sumitomo Chemical Singapore Pte Ltd	Bioresmethrin (Agro-Chemie)	Bioresmethrin	93.00	Technical, liquid	17/06/2003
249	R-PelRB/046/0295	Syngenta Asia Pacific Pte Ltd	Talon	Brodifacoum	0.005	Pelleted Bait	24/06/2003
250	I-WdsGR/045/0296	Best Chemical Co (S) Pte Ltd	Mosquito Dunks (Bti Briquets)	Bacillus Thuringiensis subspecies Israelensis Serotype H-14, 7000 ITU/mg	10.31	Water-dispersible Granule	15/07/2003
251	I-WdsGR/045/0297	Best Chemical Co (S) Pte Ltd	Mosquito Dunks (Bti Briquets)	Bacillus Thuringiensis subspecies Israelensis Serotype H-14, 7000 ITU/mg	10.31	Water-dispersible Granule	23/07/2003
252	I-LiqVP/002/0298	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Liquid Vapour	Esbiothrin	2.60	Liquid Vaporizer	30/07/2003
253	I-OilAE/015/0299	S.C. Johnson & Son Pte Ltd	Baygon All Insect Killer	Propoxur Cyfluthrin	0.750 0.025	Oil-based Aerosol	08/08/2003
254	I-WtrAE/015/0300	S.C. Johnson & Son Pte Ltd	Baygon Mosquito Killer	Transfluthrin Cyfluthrin	0.040 0.025	Water-based Aerosol	08/08/2003
255	I-WaxRB/002/0301	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Cockroach Bait	Chlorpyrifos	0.50	Wax Block Bait	07/08/2003
256	I-MicGR/048/0302	Sumitomo Chemical Singapore Pte Ltd	Sumilarv 0.5 G	Pyriproxyfen	0.50	Micro Granule	11/08/2003
257	I-OilAE/023/0303	Sara Lee Singapore Pte Ltd	Ridsect No Mos - Citrus	Prallethrin D-Phenothrin Tetramethrin	0.07 0.05 0.10	Oil-based Aerosol	09/09/2003
258	I-OilAE/023/0304	Sara Lee Singapore Pte Ltd	Ridsect No Mos - Lavender	Prallethrin D-Phenothrin Tetramethrin	0.07 0.05 0.10	Oil-based Aerosol	09/09/2003
259	I-OilAE/023/0305	Sara Lee Singapore Pte Ltd	Ridsect No Mos - Orange	Prallethrin D-Phenothrin Tetramethrin	0.07 0.05 0.10	Oil-based Aerosol	09/09/2003
260	I-OilAE/002/0306	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Roach & Ant Killer	Imiprothrin Cypermethrin	0.03 0.15	Oil-based Aerosol	15/10/2003

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261	I-SlvAE/002/0307	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Multi Kill All Insect Killer	Imiprothrin D-phenothrin	0.04 0.10	Solvent-based Aerosol	28/10/2003
262	I-GrnRB/058/0308	Teba Engineering & Enterprises	"Golden Thunder" Ants & Cockroaches Killer	Cypermethrin Borax	1.00 4.00	Granular Bait	29/10/2003
263	I-GelRB/059/0309	Allworld Enterprise	1 Step Cockroach Gel Bait	Propoxur	1.00	Gel Bait	29/10/2003
264	I-WtrAE/015/0310	S.C. Johnson & Son Private Limited	Baygon Mosquito Killer	Transfluthrin Cyfluthrin	0.040 0.025	Water-based Aerosol	26/11/2003
265	I-OilAE/015/0311	S.C. Johnson & Son Private Limited	Baygon All Insect Killer	Propoxur Cyfluthrin	0.750 0.025	Oil-based Aerosol	26/11/2003
266	I-SlvAE/001/0312	Bentz Jaz Singapore Pte Ltd	EcoPCO ACU Contact Insecticide	2-Phenethyl Propionate	0.10	Solvent-based Aerosol	02/01/2004
267	I-GelRB/008/0313	Agro Technic Pte Ltd	Avert Cockroach Gel Bait	Abamectin	0.05	Gel Bait	02/01/2004
268	I-OilAE/051/0314	Gruntek International	Bat Crawling Insect Killer	Tetramethrin Permethrin Deltamethrin	0.300 0.100 0.005	Oil-based Aerosol	15/01/2004
269	I-CoiVP/048/0315	Sumitomo Chemical Singapore Pte Ltd	SumiOne Gold	Metofluthrin	0.0075	Coil Vaporizer / Mosquito Coil	05/02/2004
270	I-CoiVP/010/0316	Sumitomo Chemical Singapore Pte Ltd	SumiOne Super	Metofluthrin	0.005	Coil Vaporizer / Mosquito Coil	05/02/2004
271	I-LiqTN/047/0317	MSR Green Corporation (S) Pte Ltd	RichBeta	d-Trans Allethrin 75:25	93.00	Technical, liquid	09/02/2004
272	I-LiqTN/047/0318	MSR Green Corporation (S) Pte Ltd	RichDelt	Deltamethrin	93.00	Technical, liquid	09/02/2004
273	I-LiqTN/047/0319	MSR Green Corporation (S) Pte Ltd	RichCyper	Cypermethrin	90.00	Technical, liquid	12/02/2004
274	I-LiqTN/047/0320	MSR Green Corporation (S) Pte Ltd	RichPerme	Permethrin	90.00	Technical, liquid	12/02/2004
275	I-OilAE/030/0321	Lian Soon Siong Trading Co.	Trad	Imiprothrin Permethrin	0.10 0.30	Oil-based Aerosol	01/03/2004
276	I-SolCN/057/0322	Agsin Pte Ltd	Imidacloprid 9.6% SL	Imidacloprid	9.60	Soluble Concentrate	16/03/2004
277	I-SusCN/057/0323	Agsin Pte Ltd	Imidacloprid 18.2% SC	Imidacloprid	18.20	Suspension Concentrate	19/03/2004
278	I-SusCN/061/0324	Sundat (S) Pte Ltd	Sunmerin A	Alpha Cypermethrin	5.00	Suspension Concentrate	31/03/2004
279	I-MicGR/039/0325	Equitech Pesticides & Equipment Trading	Temphos AB 1% SG	Temephos	1.00	Micro Granule	02/04/2004
280	I-GelRB/008/0326	Agro Technic Pte Ltd	Agrogel Cockroach Gel Bait	Abamectin	0.05	Gel Bait	14/04/2004
281	P-LiqLT/032/0327	Johnson & Johnson Pte Ltd	Johnson's Baby Clear Lotion Anti-mosquito	Ethyl Butylacetyl amino -propionate	12.50	Liquid Lotion	15/04/2004
282	I-GelRB/016/0328	Asiatic Agricultural Industries Pte Ltd	Sieze Plus	Chlorpyrifos	1.00	Gel Bait	16/04/2004
283	I-GelRB/016/0329	Asiatic Agricultural Industries Pte Ltd	Sieze Platinum RB	Hydramethylnon	2.00	Gel Bait	16/04/2004
284	I-EmlCN/016/0330	Asiatic Agricultural Industries Pte Ltd	Aztec 50 EC	Pirimiphos-methyl	49.02	Emulsifiable Concentrate	26/04/2004
285	I-PstRB/062/0331	Sensatec (Asia) Pte Ltd	Combat Roach Killer	Fipronil	0.05	Paste Bait	26/04/2004
286	I-PstRB/062/0332	Sensatec (Asia) Pte Ltd	Wipeout	Fipronil	0.05	Paste Bait	26/04/2004

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287	I-AquSU/045/0333	Best Chemical Co (S) Pte Ltd	AQUABAC xt	Bacillus thuringiensis Israelensis Solids, Spores & Insecticidal Toxins, 1,200 ITU/mg	8.00	Aqueous Suspension	10/05/2004
288	I-EmlCN/003/0334	Okada Ecotech Pte Ltd	Biovectrol 20EM	Etofenprox	20.00	Emulsifiable Concentrate	13/05/2004
289	I-NetIM/063/0335	Sumitomo Chemical Singapore Pte Ltd	Olyset Net	Permethrin	2.00	Impregnated Bed Net	22/05/2004
290	I-EmlCN/057/0336	Agsin Pte Ltd	Demax	Deltamethrin	2.50	Emulsifiable Concentrate	08/06/2004
291	I-EmlCN/057/0337	Agsin Pte Ltd	Zapex 5	Cypermethrin	5.00	Emulsifiable Concentrate	08/06/2004
292	I-EmlCN/051/0338	Gruntek International	Grunpro D 2.8% EC	Deltamethrin	2.80	Emulsifiable Concentrate	09/06/2004
293	I-EmlCN/057/0339	Agsin Pte Ltd	Zalathion	Malathion	84.00	Emulsifiable Concentrate	21/06/2004
294	I-GrnRB/064/0340	Fan Sin Engineering Co.	FBI	Fipronil	0.05	Granular Bait	24/06/2004
295	I-CapSU/016/0341	Asiatic Agricultural Industries Pte Ltd	D-Fence MC	Deltamethrin	2.50	Capsule Suspension	01/07/2004
296	I-CapSU/016/0342	Asiatic Agricultural Industries Pte Ltd	Vycon MC	Lambda-Cyhalothrin	2.50	Capsule Suspension	01/07/2004
297	I-SlvAE/065/0343	Creative Network International (S) Pte Ltd	Co-Go	Cypermethrin Permethrin	0.40 0.20	Solvent-based Aerosol	09/07/2004
298	I-EmlPN/066/0344	Premacom Services	PC-Cide	Chlorpyrifos Decamethrin Propoxur	0.50 0.05 0.05	Paint, emulsion	14/07/2004
299	I-OilEW/003/0345	Okada Ecotech Pte Ltd	Vecterm 10EW	Etofenprox	10.00	Emulsion, oil in water	14/07/2004
300	I-WetPD/067/0346	Agromed Resources Pte Ltd	Moskil	Bacillus thuringiensis subsp. Israelensis serotype H 14	5.00	Wettable Powder	17/07/2004
301	I-EmlCN/056/0347	Victagro Pte Ltd	Delete	Deltamethrin	2.50	Emulsifiable Concentrate	23/07/2004
302	I-OilEW/003/0348	Okada Ecotech Pte Ltd	Vecterm 20EW	Etofenprox	20.00	Emulsion, oil in water	13/08/2004
303	I-OilAE/015/0349	S.C. Johnson & Son Private Limited	Baygon Mosquito Killer	Prallethrin Permethrin	0.108 0.109	Oil-based Aerosol	23/08/2004
304	P-LiqLT/015/0350	S.C. Johnson & Son Private Limited	OFF! Soft & Scented Insect Repellent Lotion	N,N-Diethyltoluamide	15.00	Liquid Lotion	06/09/2004
305	I-MatVP/015/0351	S.C. Johnson & Son Private Limited	Baygon Aluminum Mat	D-Allethrin	5.09	Mat Vaporizer	24/09/2004
306	I-EmlCN/003/0352	Okada Ecotech Pte Ltd	Vecterm-20EM	Etofenprox	20.00	Emulsifiable Concentrate	04/10/2004
307	I-GelRB/068/0353	1 Step Pest Control Services Pte Ltd	1 Step Cockroach Gel Bait	Propoxur	1.00	Gel Bait	15/10/2004
308	R-WaxRB/029/0354	Zagro Singapore Pte Ltd	Larinat Bait	Bromadiolone	0.005	Wax Block Bait	08/11/2004
309	P-LiqLT/032/0355	Johnson & Johnson Pte Ltd	Johnson's Baby Clear Lotion Anti-Mosquito	Ethyl Butylacetylaminio -Propionate	12.50	Liquid Lotion	09/11/2004
310	I-GrnRB/029/0356	Zagro Singapore Pte Ltd	ZaZaFly	Azamethiphos	1.00	Granular Bait	18/11/2004
311	I-EmlCN/056/0357	Victagro Pte Ltd	Sniper 10 EC	Cypermethrin	10.00	Emulsifiable Concentrate	19/11/2004
312	I-OlmLQ/008/0358	Agro Technic Pte Ltd	PY-ZAP	Pyrethrins	4.10	Oil-miscible Liquid	24/11/2004
313	I-EmlCN/069/0359	Go-Green Pte Ltd	Boxer-30% EC	Etofenprox	30.00	Emulsifiable Concentrate	06/12/2004
314	R-PelRB/056/0360	Victagro Pte Ltd	Nofar-1	Brodifacoum	0.005	Pelleted Bait	06/12/2004
315	I-GenSM/047/0361	MSR Green Corporation (S) Pte Ltd	Speed	Cypermethrin	8.00	Smoke Generator	07/12/2004
316	I-EmlCN/056/0362	Victagro Pte Ltd	Phinco T-22	Permethrin Tetramethrin	9.75 1.50	Emulsifiable Concentrate	17/12/2004

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317	I-OilAE/015/0363	S.C. Johnson & Son Private Limited	Baygon All Insect Killer	Cyfluthrin Imiprothrin	0.015 0.050	Oil-based Aerosol	22/12/2004
318	I-MicEW/012/0364	Rentokil Initial Singapore Private Limited	PyGo	d-phenothrin	10.00	Micro Emulsion	04/01/2005
319	I-EmlCN/001/0365	Bentz Jaz Singapore Pte Ltd	EFI ME	Pyrethrins	4.10	Emulsifiable Concentrate	11/01/2005
320	I-GrnRB/070/0366	WJ Organization	Gold Cannon Once For All	Cypermethrin	0.10	Granular Bait	24/01/2005
321	I-SusCN/008/0367	Agro Technic Pte Ltd	Bistar 8% SC	Bifenthrin	7.80	Suspension Concentrate	15/02/2005
322	I-MicCN/063/0368	Sumitomo Chemical Singapore Pte Ltd	Sumithion 20MC	Fenitrothion	20.0	Micro-capsule Concentrate	16/02/2005
323	I-LiqTN/063/0369	Sumitomo Chemical Singapore Pte Ltd	Kenya Pyrethrum Refined Conc. Extract 25% (PALE)	Pyrethrins	25.0	Technical, liquid	16/02/2005
324	I-OilEW/007/0370	Bayer (South East Asia) Pte Ltd	Aqua Deltacide	Deltamethrin	2.00	Emulsion, oil in water	17/02/2005
325	I-LiqTN/007/0371	Bayer (South East Asia) Pte Ltd	Cislin 30	Deltamethrin	28.40	Technical, liquid	17/02/2005
326	I-DusPD/007/0372	Bayer (South East Asia) Pte Ltd	Coopex Insect Powder	Permethrin 25/75	0.50	Dustable Powder	17/02/2005
327	I-GenSM/007/0373	Bayer (South East Asia) Pte Ltd	Coopex Smoke Generator	Permethrin	13.50	Smoke Generator	17/02/2005
328	I-WetPD/007/0374	Bayer (South East Asia) Pte Ltd	Coopex WP	Permethrin 25/75	25.00	Wettable Powder	17/02/2005
329	I-SusCN/007/0375	Bayer (South East Asia) Pte Ltd	Crackdown	Deltamethrin	0.97	Suspension Concentrate	17/02/2005
330	I-DusPD/007/0376	Bayer (South East Asia) Pte Ltd	Crackdown Insect Powder	Deltamethrin	0.05	Dustable Powder	17/02/2005
331	I-OilEW/007/0377	Bayer (South East Asia) Pte Ltd	Crackdown Rapide	Deltamethrin S-Bioallethrin	2.50 2.00	Emulsion, oil in water	17/02/2005
332	I-LiqTN/007/0378	Bayer (South East Asia) Pte Ltd	Musal	Bromadiolone	0.24	Technical, liquid	17/02/2005
333	I-EmlCN/007/0379	Bayer (South East Asia) Pte Ltd	Cislin	Deltamethrin	2.80	Emulsifiable Concentrate	17/02/2005
334	I-EmlCN/007/0380	Bayer (South East Asia) Pte Ltd	Crackdown 15 EC	Deltamethrin	1.57	Emulsifiable Concentrate	17/02/2005
335	I-EmlCN/007/0381	Bayer (South East Asia) Pte Ltd	Deltacide	S-Bioallethrin Deltamethrin	0.85 0.60	Emulsifiable Concentrate	17/02/2005
336	I-EmlCN/007/0382	Bayer (South East Asia) Pte Ltd	Resigen	S-bioallethrin Permethrin 25/75	0.80 18.70	Emulsifiable Concentrate	17/02/2005
337	I-WetPD/007/0383	Bayer (South East Asia) Pte Ltd	Cislin WP	Deltamethrin	2.50	Wettable Powder	17/02/2005
338	I-GrnRB/071/0384	Radha Exports Pte Ltd	Superior Ants & Cockroaches Killer	Cypermethrin Borax	0.10 4.00	Granular Bait	18/02/2005
339	I-PstRB/062/0385	Sensatec (Asia) Pte Ltd	Combat Roach Killer	Fipronil	0.05	Paste Bait	29/03/2005
340	I-PstRB/062/0386	Sensatec (Asia) Pte Ltd	Wipeout	Fipronil	0.05	Paste Bait	29/03/2005
341	I-MicGR/008/0387	Agro Technic Pte Ltd	Creek 1.0 G	Temephos	1.00	Micro Granule	08/04/2005
342	I-EmlCN/003/0388	Okada Ecotech Pte Ltd	Biovectrol 10EM	Etofenprox	10.0	Emulsifiable Concentrate	13/04/2005
343	I-MicGR/072/0389	Singapore Horti-Flora	SPAR 1% S.G.	Temephos	1.00	Micro Granule	21/04/2005
344	I-EmlCN/008/0390	Agro Technic Pte Ltd	Agrofog 5.0 EC	Cyfluthrin	5.00	Emulsifiable Concentrate	22/04/2005
345	I-PstRB/073/0391	Gold Eagle International (S) Pte Ltd	Duodumie Lure And Kill Magic Box	Aprocarb	0.10	Paste Bait	03/05/2005
346	I-OilAE/015/0392	S.C. Johnson & Son Private Limited	Baygon Crawling Insect Killer	Imiprothrin Cypermethrin	0.10 0.10	Oil-based Aerosol	09/05/2005
347	I-OilAE/015/0393	S.C. Johnson & Son Private Limited	Baygon Crawling Insect Killer	Imiprothrin Cypermethrin	0.10 0.10	Oil-based Aerosol	09/05/2005
348	I-LiqSP/015/0394	S.C. Johnson & Son Private Limited	OFF! Aqua Spritz Insect Repellent Spray	N,N-Diethyl-Meta -Toluamide	15.0	Liquid Spray (Insecticide)	27/05/2005

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349	I-MicGR/074/0395	Zagro Singapore Pte Ltd	Vactor 1G	Temephos	1.00	Micro Granule	30/05/2005
350	I-LiqVP/002/0396	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Liquid	Esbiothrin	2.60	Liquid Vaporizer	30/05/2005
351	I-PstRB/015/0398	S.C. Johnson & Son Private Limited	Baygon Double Control Roach Bait	Abamectin	0.05	Paste Bait	10/06/2005
352	I-DusPD/075/0399	Natural Earth	Natural Earth Organic Insecticide	Pyrethrins	0.20	Dustable Powder	13/06/2005
353	I-CoiVP/015/0400	S.C. Johnson & Son Private Limited	Baygon Mosquito Coil (Lavender)	Transfluthrin	0.03	Coil Vaporizer / Mosquito Coil	14/06/2005
354	I-WetPD/074/0401	Zagro Singapore Pte Ltd	ZaZacron	Azamethiphos	10.0	Wettable Powder	28/06/2005
355	I-AquFU/076/0402	Unique Environmental Services Pte Ltd	Red Earth Aqua Fumigator	D-T80-Cyphenothrin	7.20	Aqua Fumigator	05/07/2005
356	I-SlvAE/002/0403	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Rapid Killer	Imiprothrin Cypermethrin	0.03 0.15	Solvent-based Aerosol	11/07/2005
357	I-SlvAE/002/0404	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Instant Kill	D-phenothrin Prallethrin	0.100 0.073	Solvent-based Aerosol	13/07/2005
358	I-LiqVP/015/0405	S.C. Johnson & Son Private Limited	Baygon Electric Mosquito Repeller Refill	Prallethrin	1.25	Liquid Vaporizer	02/08/2005
359	I-EmlCN/077/0406	Sumitomo Chemical Singapore Pte Ltd	Gokilaht-S 5EC	d,d-trans-cyphenothrin	5.90	Emulsifiable Concentrate	18/08/2005
360	I-OilAE/054/0407	Maya Manufacturing & Trading Co. Pte Ltd	Mosfly	Tetramethrin D-allethrin D-phenothrin	0.12 0.24 0.14	Oil-based Aerosol	19/08/2005
361	I-EmlCN/008/0408	Agro Technic Pte Ltd	Pynosect PCO	Permethrin	21.70	Emulsifiable Concentrate	23/08/2005
362	R-TrkPD/008/0409	Agro Technic Pte Ltd	Coumatrac	Coumatetralyl	0.75	Tracking Powder	23/08/2005
363	I-EmlCN/008/0410	Agro Technic Pte Ltd	Fossil 6.5 EC	Cypermethrin	6.50	Emulsifiable Concentrate	24/08/2005
364	I-EmlCN/008/0411	Agro Technic Pte Ltd	Pynosect 10	Permethrin Tetramethrin	18.65 9.33	Emulsifiable Concentrate	25/08/2005
365	I-GenSM/001/0412	Bentz Jaz Singapore Pte Ltd	Protector Insecticide Smoke	Permethrin	4.75	Smoke Generator	13/09/2005
366	I-LiqSP/078/0413	Medipharma Pte Ltd	Sketolene Shield	N,N-Diethyl-M-Toluamide	20.0	Liquid Spray (Insecticide)	27/09/2005
367	I-CoiVP/054/0414	Maya Manufacturing & Trading Co. Pte Ltd	Mosfly	D-allethrin	0.20	Coil Vaporizer / Mosquito Coil	29/09/2005
368	I-EmlCN/074/0415	Zagro Singapore Pte Ltd	Jentik-Jentik 500	Temephos	44.6	Emulsifiable Concentrate	29/09/2005
369	I-EmlCN/074/0416	Zagro Singapore Pte Ltd	Zapyrifos 38.5EC	Chlorpyrifos	38.5	Emulsifiable Concentrate	30/09/2005
370	P-WetTS/079/0417	Pigeon Singapore Pte Ltd	Anti-Mosquito Wet Tissues	Ethyl Butylacetyl amino propionate	10.0	Wet Tissue	03/10/2005
371	I-EmlCN/074/0418	Zagro Singapore Pte Ltd	Zapyrifos 38EC	Chlorpyrifos	38.0	Emulsifiable Concentrate	06/10/2005
372	I-EmlCN/074/0419	Zagro Singapore Pte Ltd	Perfectin 13	Permethrin	13.0	Emulsifiable Concentrate	06/10/2005
373	I-EmlCN/074/0420	Zagro Singapore Pte Ltd	Perfectin 15	Permethrin	15.0	Emulsifiable Concentrate	06/10/2005
374	I-EmlCN/074/0421	Zagro Singapore Pte Ltd	Perfectin 20	Permethrin	20.0	Emulsifiable Concentrate	11/10/2005
375	I-EmlCN/074/0422	Zagro Singapore Pte Ltd	Perfectin 25	Permethrin	25.0	Emulsifiable Concentrate	11/10/2005
376	I-EmlCN/074/0423	Zagro Singapore Pte Ltd	Zapex 5	Cypermethrin	5.00	Emulsifiable Concentrate	19/10/2005
377	I-EmlCN/074/0424	Zagro Singapore Pte Ltd	Zalathion	Malathion	84.0	Emulsifiable Concentrate	21/10/2005
378	I-EmlCN/074/0425	Zagro Singapore Pte Ltd	Demax	Deltamethrin	2.84	Emulsifiable Concentrate	07/11/2005
379	P-SlvAE/080/0426	3M Technologies (S) Pte Ltd	3M Ultrathon Insect Repellent	N,N-diethyl-m-toluamide	25.0	Solvent-based Aerosol	11/11/2005

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380	I-EmlCN/007/0427	Bayer (South East Asia) Pte Ltd	Uden 20 EC	Propoxur	20.0	Emulsifiable Concentrate	18/11/2005
381	I-CapSU/074/0428	Zagro Singapore Pte Ltd	Chlorcap	Chlorpyrifos	25.0	Capsule Suspension	18/11/2005
382	I-WtrAE/081/0429	Taylor Stanley (S) Pte Ltd	Kitz X-PEL 100	Etofenprox	1.00	Water-based Aerosol	21/11/2005
383	I-WtrAE/065/0430	Creative Network International (S) Pte Ltd	Sky-Radar NF	Prallethrin d-phenothrin	0.09 0.05	Water-based Aerosol	21/11/2005
384	I-EmlCN/074/0431	Zagro Singapore Pte Ltd	Zapex 10	Cypermethrin	10.0	Emulsifiable Concentrate	24/11/2005
385	I-EmlCN/074/0432	Zagro Singapore Pte Ltd	Zapex 15	Cypermethrin	15.0	Emulsifiable Concentrate	29/11/2005
386	P-ConGL/014/0433	Fair Chem Industries Pte Ltd	Enprotec Insect Repellent	N,N-Diethyl-M-Toluamide	20.0	Contact Gel	30/11/2005
387	I-EmlCN/074/0434	Zagro Singapore Pte Ltd	Zapex 20	Cypermethrin	20.0	Emulsifiable Concentrate	30/11/2005
388	I-EmlCN/003/0435	Okada Ecotech Pte Ltd	Vecterm 10EM	Etofenprox	10.0	Emulsifiable Concentrate	01/12/2005
389	I-LiqSP/082/0436	NU Skin Enterprises Singapore Pte Ltd	Epoch Body Armor Insect Repellent	Ethyl Butylacetyl amino propionate	10.0	Liquid Spray (Insecticide)	02/12/2005
390	I-EmlCN/074/0437	Zagro Singapore Pte Ltd	Zapex 25	Cypermethrin	25.0	Emulsifiable Concentrate	02/12/2005
391	I-PapVP/002/0438	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Activ Air 10 Nights	Metofluthrin	0.28	Paper Emanation (Insecticide)	07/12/2005
392	I-PapVP/002/0439	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Activ Air 30 Nights	Metofluthrin	0.73	Paper Emanation (Insecticide)	07/12/2005
393	I-EmlCN/074/0441	Zagro Singapore Pte Ltd	Demax 1.5	Deltamethrin	1.70	Emulsifiable Concentrate	16/12/2005
394	I-EmlCN/039/0442	Equitech Pesticides & Equipment Trading	Supremo 250	Permethrin	25.0	Emulsifiable Concentrate	04/01/2006
395	P-SlvAE/015/0443	S.C. Johnson & Son Private Limited	OFF! Active Insect Repellent I	N, N-diethyl-m-toluamide	15.0	Solvent-based Aerosol	23/01/2006
396	P-SlvAE/015/0444	S.C. Johnson & Son Private Limited	OFF! Active Insect Repellent I	N, N-diethyl-m-toluamide	15.0	Solvent-based Aerosol	23/01/2006
397	I-MicGR/074/0445	Zagro Singapore Pte Ltd	Vactor 1 G	Temephos	1.0	Micro Granule	27/01/2006
398	I-EmlCN/074/0446	Zagro Singapore Pte Ltd	Jentik-Jentik 50	Temephos Technical (90%)	55.55	Emulsifiable Concentrate	27/01/2006
399	I-DusPD/051/0447	Gruntek International	Magik Puff	Cypermethrin	1.0	Dustable Powder	02/02/2006
400	P-LiqLT/084/0448	TMVC Singapore Pte Ltd	RID-Sunblock 30+	N, N-diethyl-m-toluamide	7.0	Liquid Lotion	21/02/2006
401	P-CrmLT/084/0449	TMVC Singapore Pte Ltd	RID-Kids	N, N-diethyl-m-toluamide	7.0	Cream Lotion	21/02/2006
402	P-LiqLT/084/0450	TMVC Singapore Pte Ltd	RID-Tropical Strength	N, N-diethyl-m-toluamide	19.0	Liquid Lotion	21/02/2006
403	P-LiqSP/084/0451	TMVC Singapore Pte Ltd	RID-Tropical Strength	N, N-diethyl-m-toluamide	19.0	Liquid Spray (Repellent)	21/02/2006
404	I-TabRB/085/0452	Adiwarna Industries Pte Ltd	Jackie	Cinnamic Aldehyde	5.0	Tablet Bait	22/02/2006
405	I-MatVP/001/0453	Bentz Jaz Singapore Pte Ltd	Panaplate	Dichlorvos	16.0	Mat Vaporizer	28/02/2006
406	I-WetPD/025/0454	New Eastern (1971) Pte Ltd	Newcyper 15 WP	Cypermethrin	15.0	Wettable Powder	15/03/2006
407	I-SlvAE/015/0455	S.C. Johnson & Son Private Limited	Baygon All Insect Killer	Imiprothrin Cyfluthrin	0.050 0.015	Solvent-based Aerosol	16/03/2006
408	I-SlvAE/015/0456	S.C. Johnson & Son Private Limited	Baygon Mosquito Killer	Prallethrin Permethrin	0.100 0.100	Solvent-based Aerosol	16/03/2006
409	I-EmlCN/086/0457	Utex Industrial Supplies Pte Ltd	Callington Airez Insecticide	Permethrin 25:75	52.60	Emulsifiable Concentrate	30/03/2006
410	I-SlvAE/086/0458	Utex Industrial Supplies Pte Ltd	Callington Pre-Spray Aircraft Insecticide	Permethrin 25:75	2.0	Solvent-based Aerosol	30/03/2006
411	I-SlvAE/086/0459	Utex Industrial Supplies Pte Ltd	Callington 1-Shot Aircraft Insecticide	D-Phenothrin 20:80 Permethrin 25:75	2.0	Solvent-based Aerosol	30/03/2006
412	I-SlvAE/086/0460	Utex Industrial Supplies Pte Ltd	Callington Top of Descent Aircraft Insecticide	D-Phenothrin 20:80	2.0	Solvent-based Aerosol	30/03/2006
413	P-PatCH/087/0461	Apricot Distribution Network Pte Ltd	Mos-Buster Mosquito Repellent Patch	IBI-246 (2-Undecanone)	7.77	Patch	13/04/2006

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S/N	NEA Reg No	Company	Trade / Brand Name	Active Ingredient (S)	% w/w	Formulation	Reg Date
414	I-SlvAE/001/0462	Bentz Jaz Singapore Pte Ltd	Pymatic Metered Insecticide	Pyrethrins	1.40	Solvent-based Aerosol	17/04/2006
415	I-SlvAE/088/0463	Hypercoat Enterprises Pte Ltd	MAC Arandee Aircraft Insecticide Pre Flight Spray	Permethrin	2.0	Solvent-based Aerosol	20/04/2006
416	I-SlvAE/088/0464	Hypercoat Enterprises Pte Ltd	MAC Arandee Aircraft Insecticide Cabin Spray-Top Of Descent	D-Phenothrin	2.0	Solvent-based Aerosol	20/04/2006
417	I-SlvAE/088/0465	Hypercoat Enterprises Pte Ltd	MAC Arandee Aircraft Insecticide Hold Spray	D-Phenothrin Permethrin	2.0 2.0	Solvent-based Aerosol	20/04/2006
418	I-LiqVP/015/0466	S.C. Johnson & Son Private Limited	Baygon Liquid Electric Repeller	Prallethrin	1.60	Liquid Vaporizer	04/05/2006
419	I-LiqVP/015/0467	S.C. Johnson & Son Private Limited	Baygon Liquid Electric Repeller (Natural Pine Fragrance)	Prallethrin	1.60	Liquid Vaporizer	04/05/2006
420	I-SlvAE/002/0468	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Odourless Crawling Insect Killer	Imiprothrin Cypermethrin	0.03 0.15	Solvent-based Aerosol	15/05/2006
421	I-SlvAE/002/0469	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Ultra All Insect Killer Lemon Fragranced	Imiprothrin D-Phenothrin D-trans allethrin (75/25)	0.02 0.03 0.10	Solvent-based Aerosol	16/05/2006
422	I-SlvAE/002/0470	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Ultra All Insect Killer	Imiprothrin d-phenothrin d-trans allethrin (75/25)	0.02 0.03 0.10	Solvent-based Aerosol	16/05/2006
423	I-SolCN/089/0471	Del Agro Pte Ltd	Delcol 10% SL	Imidacloprid	9.60	Soluble Concentrate	17/05/2006
424	I-SusCN/089/0472	Del Agro Pte Ltd	Delcol 18.2% SC	Imidacloprid	18.20	Suspension Concentrate	17/05/2006
425	I-SlvAE/002/0473	Reckitt Benckiser (Singapore) Pte Ltd	Hunter	Prallethrin d-phenothrin	0.042 0.096	Solvent-based Aerosol	19/05/2006
426	I-SlvAE/002/0474	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox All Insect Killer	Imiprothrin d-phenothrin d-trans allethrin (75/25)	0.02 0.03 0.10	Solvent-based Aerosol	23/05/2006
427	I-MatVP/090/0475	Maier Home Innovation	ThermaCELL Mosquito Repellent	d-cis/trans allethrin	21.97	Mat Vaporizer	24/05/2006
428	I-GelRB/040/0476	Origin Exterminators Pte Ltd	Blattathor Cockroach Gel	Abamectin	0.05	Gel Bait	30/05/2006
429	I-UlVLQ/040/0477	Origin Exterminators Pte Ltd	Diphthor ULV Insecticide	Cypermethrin	2.50	Ultra-low Volume Liquid	30/05/2006
430	I-PstPA/091/0478	Aegis Intelligent Chemicals Pte Ltd	Anikill	Pyrethrins	0.09	Paste (Insecticide)	31/05/2006
431	I-SusCN/040/0479	Origin Exterminators Pte Ltd	Betathor Insecticide	Beta-Cyfluthrin	2.50	Suspension Concentrate	01/06/2006
432	I-SlvAE/002/0480	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Odourless Flying Insect Killer	d-phenothrin d-trans allethrin (75/25)	0.050 0.126	Solvent-based Aerosol	05/06/2006
433	I-OilAE/021/0481	NTUC Fairprice Co-operative Limited	FairPrice Kill Fast All Insect Killer Oil-based Aerosol Spray	Prallethrin D-phenothrin permethrin	0.09 0.05 0.20	Oil-based Aerosol	05/06/2006
434	I-WtrAE/021/0482	NTUC Fairprice Co-operative Limited	FairPrice Kill Fast All Insect Killer Water-based Aerosol Spray	Prallethrin D-Phenothrin Permethrin	0.09 0.05 0.20	Water-based Aerosol	05/06/2006
435	R-WaxRB/068/0483	1 Step Pest Control Services Pte Ltd	1 Step Kill Fast Rodenticide	Brodifacoum	0.005	Wax Block Bait	20/06/2006
436	I-SusCN/040/0484	Origin Exterminators Pte Ltd	Maxxthor Termiticide And Insecticide	Bifenthrin	10.0	Suspension Concentrate	05/07/2006
437	P-SlvAE/015/0485	S.C. Johnson & Son Private Limited	OFF! Active insect repellent I	N, N-Diethyl-M-Toluamide	15.0	Solvent-based Aerosol	18/07/2006

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438	P-CrmLT/092/0486	Supra Healthcare Pte Ltd	Tropicare Insect Repellent	MGK 264 MGK 326 N, N-Diethyl-M-Toluamide	2.00 1.00 16.00	Cream Lotion	18/07/2006
439	I-LiqTN/047/0487	MSR Green Corporation (S) Pte Ltd	Richtransflu	Transfluthrin	92.0	Technical, liquid	28/07/2006
440	I-GelRB/007/0488	Bayer (South East Asia) Pte Ltd	Goliath Cockroach Gel	Fipronil	0.05	Gel Bait	28/07/2006
441	I-EmlCN/008/0489	Agro Technic Pte Ltd	Pynosect PCO	Permethrin	21.70	Emulsifiable Concentrate	01/08/2006
442	I-EmlCN/008/0490	Agro Technic Pte Ltd	pynosect 10	Permethrin Tetramethrin	18.65 9.33	Emulsifiable Concentrate	01/08/2006
443	I-CoiVP/077/0491	Sumitomo Chemical Singapore Pte Ltd	SumiOne A	Metofluthrin	0.005	Coil Vaporizer / Mosquito Coil	01/08/2006
444	I-CoiVP/077/0492	Sumitomo Chemical Singapore Pte Ltd	SumiOne B	Metofluthrin	0.0075	Coil Vaporizer / Mosquito Coil	04/08/2006
445	I-LiqVP/002/0493	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Liquid	d-trans Allethrin (75/25)	2.60	Liquid Vaporizer	16/08/2006
446	P-WetTS/093/0494	Tipex Trading Pte Ltd	Beautex Mosquito Repellent Wipes	Dimethyl Phthalate Ethyl Hexanediol N,N-Diethyl-m-toluamide	2.50 0.80 1.50	Wet Tissue	20/09/2006
447	I-DusPD/074/0495	Zagro Singapore Pte Ltd	Azamethiphos Technical	Azamethiphos Technical	95.0	Dustable Powder	20/09/2006
448	I-EmlCN/016/0496	Asiatic Agricultural Industries Pte Ltd	Biopren-BH 10 ECInsecticide Concentrate	Hydroprene	12.13	Emulsifiable Concentrate	20/09/2006
449	I-UlvLQ/016/0497	Asiatic Agricultural Industries Pte Ltd	Biopren- BH 1.2 ULV Insecticide Concentrate	Hydroprene Pyrethrins	1.20 1.00	Ultra-low Volume Liquid	20/09/2006
450	I-WetPD/074/0498	Zagro Singapore Pte Ltd	ZaZacron 50	Azamethiphos (95%)	52.7	Wettable Powder	04/10/2006
451	I-OilAE/023/0499	Sara Lee Singapore Pte Ltd	Ridsect Cockroach Killer	Cypermethrin Imiprothrin	0.20 0.07	Oil-based Aerosol	04/10/2006
452	I-WtrAE/023/0500	Sara Lee Singapore Pte Ltd	Ridsect Waterbase	prallethrin d-phenothrin	0.07 0.05	Water-based Aerosol	04/10/2006
453	I-SlvAE/016/0501	Asiatic Agricultural Industries Pte Ltd	Biopren -BH Cockroach Killer Aerosol	Hydroprene Permethrin Natural Pyrethrum	0.10 0.20 0.05	Solvent-based Aerosol	04/10/2006
454	I-MatVP/054/0502	Maya Manufacturing & Trading Co. Pte Ltd	Mosfly Brand Mat	d-allethrin	4.00	Mat Vaporizer	19/10/2006
455	I-CapSU/046/0503	Syngenta Asia Pacific Pte Ltd	Demand 2.5 CS	Lambda-Cyhalothrin	2.44	Capsule Suspension	31/10/2006
456	I-LiqSP/094/0504	Singapore Pharmachem Pte Ltd	EcoFog	Pyrethrins	0.52	Liquid Spray (Insecticide)	16/11/2006
457	I-GelRB/068/0505	1 Step Pest Control Services Pte Ltd	1 Step Xterminator Roach Gel	Hydramethylnon	1.70	Gel Bait	16/11/2006
458	I-MicGR/095/0506	Veltox Singapore	Temephos Sand Granules	Temephos	1.00	Micro Granule	13/12/2006
459	I-WtrAE/002/0507	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Waterbased	d-phenothrin d-trans allethrin (75/25)	0.07 0.11	Water-based Aerosol	20/12/2006
460	I-EmlCN/095/0508	Veltox Singapore	Insprin 50EC	Cypermethrin	5.00	Emulsifiable Concentrate	20/12/2006
461	I-EmlCN/095/0509	Veltox Singapore	Insprin 250EC	Cypermethrin	25.0	Emulsifiable Concentrate	20/12/2006
462	I-MicGR/047/0510	MSR Green Corporation (S) Pte Ltd	MSR Temephos 1% Sand Granule	Temephos	1.0	Micro Granule	20/12/2006
463	I-EmlCN/048/0511	Sumitomo Chemical Singapore Pte Ltd	Pynamon Forte 90EC	d-allethrin	81.0	Emulsifiable Concentrate	16/01/2007
464	R-PstRB/074/0512	Zagro Singapore Pte Ltd	HapusTikus Paste Bait	Brodifacoum	0.0050	Paste Bait	06/02/2007
465	I-NetIM/041/0513	BASF South East Asia Pte Ltd	Interceptor	alpha cypermethrin	0.66	Impregnated Bed Net	23/03/2007

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466	I-WaxRB/002/0514	Reckitt Benckiser (Singapore) Pte Ltd	Mortein Cockroach Bait	Indoxacarb	0.25	Wax Block Bait	23/03/2007
467	I-SlvAE/002/0515	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox With Dettol Germ Stop All Insect Killer	imiprothrin d-phenothrin d-trans allethrin (75/25)	0.02 0.03 0.12	Solvent-based Aerosol	23/03/2007
468	I-PstRB/015/0516	S.C. Johnson & Son Private Limited	Baygon 24-Hour Roach Killer	Indoxacarb	1.00	Paste Bait	13/04/2007
469	I-SlvAE/015/0517	S.C. Johnson & Son Private Limited	Baygon Mosquito Killer	Tetramethrin d-allethrin Permethrin	0.35 0.10 0.10	Solvent-based Aerosol	01/06/2007
470	I-SlvAE/015/0518	S.C. Johnson & Son Private Limited	BAYGON MOSQUITO Killer	Tetramethrin d-allethrin Permethrin	0.35 0.10 0.10	Solvent-based Aerosol	01/07/2007
471	I-EmlCN/025/0519	New Eastern (1971) Pte Ltd	Newcyflu 5 EC	Cyfluthrin	5.00	Emulsifiable Concentrate	01/06/2007
472	I-MatVP/096/0520	Maier (Singapore) Pte Ltd	Thermacell Mosquito Repellent	d-cis/trans allethrin	21.97	Mat Vaporizer	26/06/2007
473	I-LiqTN/097/0521	Sumitomo Chemical Singapore Pte Ltd	ETOC	Prallethrin	90.0	Technical, liquid	16/07/2007
474	I-LiqTN/048/0522	Sumitomo Chemical Singapore Pte Ltd	Sumithrin	d-phenothrin	92.0	Technical, liquid	16/07/2007
475	I-LiqTN/048/0523	Sumitomo Chemical Singapore Pte Ltd	Neo-Pynamin Forte	d-tetramethrin	92.0	Technical, liquid	16/07/2007
476	I-EmlCN/016/0524	Asiatic Agricultural Industries Pte Ltd	Able Max	Cypermethrin	25.0	Emulsifiable Concentrate	16/07/2007
477	I-SlvAE/002/0525	Reckitt Benckiser (Singapore) Pte Ltd	Mortein With Dettol Germ Stop Cockroach Killer	Cypermethrin Imiprothrin	0.20 0.07	Solvent-based Aerosol	16/07/2007
478	I-OilAE/002/0526	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Rapid Kill	imiprothrin cypermethrin	0.03 0.15	Oil-based Aerosol	16/07/2007
479	I-SlvAE/002/0527	Reckitt Benckiser (Singapore) Pte Ltd	Mortein with Dettol Germ Stop All Insect Killer	d-phenothrin imiprothrin d-trans allethrin(75/25)	0.03 0.02 0.12	Solvent-based Aerosol	16/07/2007
480	I-SlvAE/002/0528	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox with Dettol Germ Stop Cockroach Killer	cypermethrin imiprothrin	0.20 0.07	Solvent-based Aerosol	16/07/2007
481	P-WetTS/098/0529	Freshening Industries Pte Ltd	Insect Repellent Wipes	Ethyl Butylacetyl amino propionate	15.6	Wet Tissue	08/08/2007
482	I-PowTN/097/0530	Sumitomo Chemical Singapore Pte Ltd	Neo-Pynamin	Tetramethrin	92.0	Technical, Powder	08/08/2007
483	I-LiqTN/097/0531	Sumitomo Chemical Singapore Pte Ltd	Pralle 50% MUP	Imiprothrin	50.0	Technical, liquid	08/08/2007
484	I-OilEW/003/0532	Okada Ecotech Pte Ltd	Xpat 10EW	Etofenprox	10.00	Emulsion, oil in water	08/08/2007
485	I-OilAE/054/0533	Maya Manufacturing & Trading Co. Pte Ltd	Mosfly CIK	d-tetramethrin d,d,T-cyphenothrin	0.10 0.15	Oil-based Aerosol	08/08/2007
486	I-OilAE/054/0534	Maya Manufacturing & Trading Co. Pte Ltd	Mosfly FIK	prallethrin d-phenothrin	0.08 0.075	Oil-based Aerosol	08/08/2007
487	I-GelRB/089/0535	Del Agro Pte Ltd	Spectra Cockroach Gel Bait	Imidacloprid	2.15	Gel Bait	29/08/2007
488	I-LiqVP/002/0536	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Clear Nite	Transfluthrin	11.5	Liquid Vaporizer	30/08/2007
489	I-OilAE/099/0537	MSR Green Corporation (S) Pte Ltd	Robocan Insect Killer With Natural Pyrethrins	Pyrethrins	0.90	Oil-based Aerosol	30/08/2007
490	I-OilEW/007/0538	Bayer (South East Asia) Pte Ltd	Aqua K-Othrine	Deltamethrin	2.0	Emulsion, oil in water	07/09/2007
491	I-GelRB/046/0539	Syngenta Asia Pacific Pte Ltd	Optigard Cockroach Bait	emamectin benzoate	0.10	Gel Bait	10/09/2007
492	I-EmlCN/037/0540	Guardian Laboratories Pte Ltd	Geskil 50 EC	Cypermethrin	5.0	Emulsifiable Concentrate	04/10/2007
493	I-EmlCN/037/0541	Guardian Laboratories Pte Ltd	Geskil 250 EC	Cypermethrin	25.0	Emulsifiable Concentrate	04/10/2007

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494	I-GenSM/100/0542	R S AG Trader	Crocodile Fast Fumigator	Cyphenothrin MGK-264	7.0 2.5	Smoke Generator	11/10/2007
495	P-LiqLT/101/0543	Beiersdorf Singapore Pte Ltd	Hansaplast Insect Repellent Lotion	Ethyl-Butylacetyl aminopropionate	15.00	Liquid Lotion	17/10/2007
496	P-LiqSP/101/0544	Beiersdorf Singapore Pte Ltd	Hansaplast Insect Repellent Spray	Ethyl-Butylacetyl aminopropionate	15.00	Liquid Spray (Repellent)	17/10/2007
497	I-OilAE/102/0545	Trojan Hospitality Asia Pte Ltd	Mozzie Zap	Cypermethrin	1.7	Oil-based Aerosol	30/10/2007
498	I-LiqTN/047/0546	MSR Green Corporation (S) Pte Ltd	Richcyflu	Cyfluthrin	93.0	Technical, liquid	30/10/2007
499	P-LiqLT/101/0547	Beiersdorf Singapore Pte Ltd	Hansaplast Anti-Insect Lotion	Ethyl-Butylacetyl amino propionate	15.00	Liquid Lotion	30/10/2007
500	P-LiqSP/101/0548	Beiersdorf Singapore Pte Ltd	Hansaplast Anti-Insect Spray	Ethyl-Butylacetyl amino propionate	15.00	Liquid Spray (Repellent)	30/10/2007
501	I-NetIM/049/0549	Sumitomo Chemical Singapore Pte Ltd	SumiOne Net	Metofluthrin	5.0	Impregnated Insecticide Net	27/12/2007
502	R-WaxRB/046/0550	Syngenta Asia Pacific Pte Ltd	Talon WB Wax Block Rodent Bait	Brodifacoum	0.005	Wax Block Bait	27/12/2007
503	P-LiqSP/103/0551	Delfi Singapore Pte Ltd	Moz Away Long Hour Protection	Picaridin	19.2	Liquid Spray (Repellent)	27/12/2007
504	I-GelRB/104/0552	Delchem Singapore Pte Ltd	Spectra Cockroach Gel Bait	Imidacloprid	2.15	Gel Bait	05/02/2008
505	P-LiqSP/105/0553	DCL Industries Pte Ltd	Sawyer Premium Insect Repellent Clothing, SP647, (Pump & Spray)	Permethrin	0.50	Liquid Spray (Clothing Repellent)	06/03/2008
506	R-PelRB/074/0554	Zagro Singapore Pte Ltd	HapusTikus Pellets	Brodifacoum	0.005	Pelleted Bait	17/04/2008
507	R-WaxRB/074/0555	Zagro Singapore Pte Ltd	hapusTikus Wax Block	Brodifacoum	0.005	Wax Block Bait	17/04/2008
508	I-CapSU/016/0556	Asiatic Agricultural Industries Pte Ltd	Quest MC	Lambda-cyhalothrin	2.5	Capsule Suspension	17/04/2008
509	I-SlvAE/002/0557	Reckitt Benckiser (Singapore) Pte Ltd	Hunter FIK	Prallethrin D-Phenothrin	0.042 0.096	Solvent-based Aerosol	21/04/2008
510	I-SlvAE/002/0557	Reckitt Benckiser (Singapore) Pte Ltd	Hunter FIK	Prallethrin D-Phenothrin	0.042 0.096	Solvent-based Aerosol	21/04/2008
511	I-GelRB/106/0558	DuPont Company (Singapore) Pte Ltd	DuPont Advion Cockroach Gel Bait	Indoxacarb	0.6	Gel Bait	19/06/2008
512	I-LiqTN/107/0559	PCTS Specialty Chemicals Pte Ltd	Tagros T93	Permethrin	93.0	Technical, liquid	19/06/2008
513	I-GelRB/108/0560	First Choice Pest Specialist Pte Ltd	First Choice Cockroach Gel Bait	Propoxur	1.0	Gel Bait	19/06/2008
514	I-LiqTN/047/0561	MSR Green Corporation (S) Pte Ltd	Richimipro 50% TK	Imiprothrin	50.0	Technical, liquid	08/07/2008
515	P-LiqSP/020/0562	Diethelm Singapore Pte Ltd	MOZ AWAY Long Hour Protection	Picaridin	19.2	Liquid Spray (Repellent)	24/07/2008
516	I-GelRB/109/0563	Avoir International Pte Ltd	Preminator Cockroach Bait	Imidacloprid	2.15	Gel Bait	27/08/2008
517	R-WaxRB/046/0564	Syngenta Asia Pacific Pte Ltd	Matikus	Brodifacoum	0.003	Wax Block Bait	27/08/2008
518	I-OilAE/110/0565	Umax Corporation (S) Pte Ltd	Blacktop Cockroach Killer	Imiprothrin Cypermethrin	0.10 0.10	Oil-based Aerosol	29/09/2008
519	I-OilAE/110/0566	Umax Corporation (S) Pte Ltd	Blacktop	Prallethrin Imiprothrin Cypermethrin	0.05 0.05 0.10	Oil-based Aerosol	29/09/2008
520	I-CoiVP/002/0567	Reckitt Benckiser (Singapore) Pte Ltd	SHIELDTOX 10-HOUR COILS	Metofluthrin	0.005	Coil Vaporizer / Mosquito Coil	10/11/2008
521	I-CoiVP/002/0568	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox 10 Hour Coils	Metofluthrin	0.005	Coil Vaporizer / Mosquito Coil	11/11/2008
522	I-LiqVP/002/0569	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Liquid	d-trans allethrin (75/25)	2.6	Liquid Vaporizer	05/12/2008
523	I-PowTN/074/0570	Zagro Singapore Pte Ltd	Deltamethrin Technical	Deltamethrin	98.0	Technical, Powder	05/12/2008
524	I-GrnRB/074/0571	Zagro Singapore Pte Ltd	Killer 1%	Azamethiphos	1.0	Granular Bait	05/12/2008

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S/N	NEA Reg No	Company	Trade / Brand Name	Active Ingredient (S)	% w/w	Formulation	Reg Date
525	I-GelRB/068/0572	1 Step Pest Control Services Pte Ltd	1 STEP Cockroach Gel Bait	Imidacloprid	2.5	Gel Bait	11/12/2008
526	I-LiqTN/047/0573	MSR Green Corporation (S) Pte Ltd	Rich D-Tetra	d-tetramethrin	94.0	Technical, liquid	11/12/2008
527	I-MatVP/015/0574	S.C. Johnson & Son Private Limited	Baygon Power Plug (7 Nights)	Transfluthrin	3.5	Mat Vaporizer	10/02/2009
528	I-MatVP/015/0575	S.C. Johnson & Son Private Limited	Baygon Power Plug (30 Nights)	Transfluthrin	13.43	Mat Vaporizer	10/02/2009
529	I-OilAE/023/0576	Sara Lee Singapore Pte Ltd	Ridsect Mosquito Killer	prallethrin d-phenothrin	0.04 0.10	Oil-based Aerosol	10/02/2009
530	I-OilAE/111/0577	Pestbusters Pte Ltd	PestBusters Insect Killer	Prallethrin Imiprothrin Permethrin	0.10 0.10 0.30	Oil-based Aerosol	10/02/2009
531	I-EmlCN/074/0578	Zagro Singapore Pte Ltd	D-Mark	Deltamethrin	1.13	Emulsifiable Concentrate	12/02/2009
532	I-LiqVP/002/0579	Reckitt Benckiser (Singapore) Pte Ltd	SHIELDTOX Clear Nite	Transfluthrin	11.5	Liquid Vaporizer	06/03/2009
533	I-GelRB/074/0580	Zagro Singapore Pte Ltd	Roach Block	Hydramethylnon	2.2	Gel Bait	18/05/2009
534	I-LiqTN/039/0581	Equitech (S) Pte Ltd	Temephos Tech	Temephos	92.0	Technical, liquid	20/05/2009
535	I-PstRB/015/0582	S.C. Johnson & Son Private Limited	BAYGON 24 HOUR ROACH KILLER	Indoxacarb	0.5	Paste Bait	02/07/2009
536	I-WtrAE/003/0583	Okada Ecotech Pte Ltd	Bio-X	Etofenprox	1.25	Water-based Aerosol	13/07/2009
537	I-SlrSB/112/0584	Hydroemission Corporation Pte Ltd	Laevikil Block	Temephos	1.0	Slow Release Solid Block	20/07/2009
538	I-GrnRB/025/0585	New Eastern (1971) Pte Ltd	Newbait	Propoxur	1.0	Granular Bait	17/08/2009
539	I-WtrAE/003/0586	Okada Ecotech Pte Ltd	Bio-X Handspray	Etofenprox	1.25	Water-based Aerosol	18/08/2009
540	I-OilEW/039/0587	Equitech (S) Pte Ltd	Temphos Larvicidal Oil	Temephos	0.54	Emulsion, oil in water	21/08/2009
541	I-EmlCN/047/0588	MSR Green Corporation (S) Pte Ltd	SpeedCyper 10% EC	Cypermethrin	10.0	Emulsifiable Concentrate	16/09/2009
542	R-PelRB/046/0589	Syngenta Asia Pacific Pte Ltd	Talon P	Brodifacoum	0.005	Pelleted Bait	17/09/2009
543	I-WdsGR/045/0590	Best Chemical Co (S) Pte Ltd	Aquabac DF 3000	Bacillus Thuringiensis Subsp. Israelensis (7000 Itu/mg)	43.0	Water-dispersible Granule	24/11/2009
544	I-WdsGR/106/0591	DuPont Company (Singapore) Pte Ltd	DuPont Arilon Insecticide	Indoxacarb	20.00	Water-dispersible Granule	24/11/2009
545	I-SlvAE/015/0592	S C Johnson & Son Private Limited	Baygon Protector Crawling Insect Killer Triple Action (3 in 1)	Imiprothrin Cypermethrin	0.10 0.10	Solvent-based Aerosol	09/12/2009
546	I-WtrAE/002/0593	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Powergard Barrier Outdoor	Imiprothrin Deltamethrin	0.03 0.06	Water-based Aerosol	21/12/2009
547	I-WtrAE/002/0594	Reckitt Benckiser (Singapore) Pte Ltd	SHIELDTOX POWERGARD BARRIER OUTDOOR	Imiprothrin Deltamethrin	0.03 0.06	Water-based Aerosol	22/12/2009
548	I-WdsGR/106/0595	DuPont Company (Singapore) Pte Ltd	DUPONT ARILON INSECTICIDE	Indoxacarb	20.0	Water-dispersible Granule	23/12/2009
549	I-GelRB/106/0596	DuPont Company (Singapore) Pte Ltd	DuPont Advion Cockroach Gel	Indoxacarb	0.60	Gel Bait	04/01/2010
550	I-EmlCN/047/0597	MSR Green Corporation (S) Pte Ltd	SpeedCyper 5% EC	Cypermethrin	5.00	Emulsifiable Concentrate	14/01/2010
551	I-WdsGR/045/0598	Best Chemical Co (S) Pte Ltd	AQUABAC DF 3000	Bacillus Thuringiensis Subsp. Israelensis (7000 itu/mg)	43.0	Water-dispersible Granule	19/01/2010
552	I-CoiVP/002/0599	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Powergard Mosquito Coils	Metofluthrin	0.005	Coil Vaporizer / Mosquito Coil	20/01/2010
553	I-GelRB/007/0600	Bayer (South East Asia) Pte Ltd	Maxforce Forte	Fipronil	0.05	Gel Bait	20/01/2010
554	I-LiqTN/039/0601	Equitech (S) Pte Ltd	Cyper Tech	Cypermethrin	92.0	Technical, liquid	08/02/2010
555	R-PelRB/016/0602	Asiatic Agricultural Industries Pte Ltd	Ratrol	Flocoumafen	0.005	Pelleted Bait	18/02/2010
556	I-GrnRB/016/0603	Asiatic Agricultural Industries Pte Ltd	Protect Fly Bait	Azamethiphos	1.0	Granular Bait	24/02/2010
557	I-EmlCN/104/0604	Delchem Singapore Pte Ltd	Tornado 2.5% EC	Lambda-Cyhalothrin	2.5	Emulsifiable Concentrate	25/02/2010

NEA Pesticides / Repellents Register

S/N	NEA Reg No	Company	Trade / Brand Name	Active Ingredient (S)	% w/w	Formulation	Reg Date
558	I-SlvAE/002/0605	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Powergard All Insect Killer	Imiprothrin d-phenothrin d-trans allethrin	0.02 0.03 0.10	Solvent-based Aerosol	01/04/2010
559	I-LiqVP/002/0606	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox Powergard Liquid Vaporiser	d-trans allethrin	2.60	Liquid Vaporizer	01/04/2010
560	I-CoiVP/015/0607	S C Johnson & Son Private Limited	Baygon Mosquito Coil - Lavender	d-allethrin	0.20	Coil Vaporizer / Mosquito Coil	05/04/2010
561	I-CoiVP/015/0608	S C Johnson & Son Private Limited	Baygon Mosquito Coil	d-allethrin	0.20	Coil Vaporizer / Mosquito Coil	05/04/2010
562	I-SlvAE/002/0609	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox PowerGard Crawling Insect Killer	imiprothrin cypermethrin	0.03 0.15	Solvent-based Aerosol	05/04/2010
563	I-SlvAE/002/0610	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox PowerGard Odourless Crawling Insect Killer	Imiprothrin Cypermethrin	0.03 0.15	Solvent-based Aerosol	06/04/2010
564	I-SlvAE/002/0611	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox PowerGard Odourless Flying Insect Killer	d-phenothrin d-trans allethrin	0.05 0.126	Solvent-based Aerosol	07/04/2010
565	I-SusCN/104/0612	Delchem Singapore Pte Ltd	Delete 2.5 SC	Deltamethrin	2.5	Suspension Concentrate	04/05/2010
566	I-EmlCN/104/0613	Delchem Singapore Pte Ltd	Delete 2.5 EC	Deltamethrin	2.5	Emulsifiable Concentrate	05/05/2010
567	I-SusCN/016/0614	Asiatic Agricultural Industries Pte Ltd	Vic 80 SC	Bifenthrin	7.8	Suspension Concentrate	19/05/2010
568	I-IpgPA/113/0615	Joo Heng Plastic Trading	No Bugs M'lady	Propoxur	1.0	Insecticide Impregnated Paper	20/05/2010
569	I-EmlCN/104/0616	Delchem Singapore Pte Ltd	Vapcothrin 5 % EC	Cyfluthrin	5.0	Emulsifiable Concentrate	04/06/2010
570	I-GelRB/068/0617	1 Step Pest Control Services Pte Ltd	1STEP Roach Killer Gel	Hydramethylnon	2.0	Gel Bait	18/06/2010
571	P-WetTS/098/0618	Freshening Industries Pte Ltd	Zappy Boy Insect Repellent Wipes	Ethyl-Butylacetylaminopropionate	15.6	Wet Tissue	24/06/2010
572	I-SlrSB/001/0619	Bentz Jaz Singapore Pte Ltd	Relief T	Temephos	1.0	Slow Release Solid Block	28/06/2010
573	I-IpgPA/071/0620	Radha Exports Pte Ltd	No Bugs M'lady	Propoxur	1.0	Insecticide-impregnated Paper	29/06/2010
574	I-SusCN/025/0621	New Eastern (1971) Pte Ltd	Newthrin 9% SC	Bifenthrin	9.0	Suspension Concentrate	08/07/2010
575	I-AquFU/001/0622	Bentz Jaz Singapore Pte Ltd	Ice Pro Fumigator	d-T80-Cyphenothrin	7.2	Aqua Fumigator	09/07/2010
576	I-XrBRI/114/0623	Wendell Trading Company	Altosid XR Briquets	(S)-Methoprene	2.1	Briquets	01/09/2010
577	I-OilEW/114/0624	Wendell Trading Company	Fyfanon	Malathion	40.0	Emulsion, oil in water	02/09/2010
578	I-NetIM/115/0625	Adventure Gear Post	Permanet 2.0	Deltamethrin	0.18	Impregnated Insecticide Net	09/09/2010
579	I-LiqTN/039/0626	Equitech (S) Pte Ltd	Permer Tech	Permethrin	95.0	Technical, liquid	09/09/2010
580	P-LiqLT/116/0627	DKSH Singapore Pte Ltd	Moz Away Junior	Picaridin	9.3	Liquid Lotion	28/09/2010
581	R-TrkPD/104/0628	Delchem Singapore Pte Ltd	Ratryl-0.75% TP	Coumatetralyl	0.75	Tracking Powder	29/09/2010
582	I-GrnRB/104/0629	Delchem Singapore Pte Ltd	Goldben	Methomyl	1.0	Granular Bait	30/09/2010
583	I-SlvAE/117/0630	Trafix Pte Ltd	Air Control	Pyrethrins	1.75	Solvent-based Aerosol	12/10/2010
584	I-GelRB/114/0631	Wendell Trading Company	Gourmet Ant & Cockroach Gel	Disodium Octaborate Tetrahydrate	6.0	Gel Bait	12/10/2010
585	I-OilEW/003/0632	Okada Ecotech Pte Ltd	Pestcon 10EW	Etofenprox	10.0	Emulsion, oil in water	12/10/2010
586	I-SlvAE/002/0633	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox NaturGard	Transfluthrin d-phenothrin	0.60 1.20	Solvent-based Aerosol	23/11/2010
587	I-GelRB/118/0634	Far East Century Pte Ltd	Gel-Max	Boric Acid	21.0	Gel Bait	23/11/2010
588	I-MicGR/085/0635	Adiwarna Industries Pte Ltd	Jackie Mosquito Granule	Cinnamic Aldehyde	5.0	Micro Granule	23/11/2010
589	I-GrnRB/016/0636	Asiatic Agricultural Industries Pte Ltd	Protect Total	Azamethiphos	1.0	Granular Bait	23/11/2010
590	P-LiqSP/119/0637	Summit Company (Singapore) Pte Ltd	Pureen Rekito Mosquito Repellent Liquid	Ethyl Butyl acetylaminopropionate	20.0	Liquid Spray (Repellent)	02/12/2010

NEA Pesticides / Repellents Register

S/N	NEA Reg No	Company	Trade / Brand Name	Active Ingredient (S)	% w/w	Formulation	Reg Date
591	I-SlvAE/002/0638	Reckitt Benckiser (Singapore) Pte Ltd	Shieldtox PowerGard Rapid Kill	Imiprothrin Cypermethrin	0.07 0.20	Solvent-based Aerosol	02/12/2010
592	P-LiqLT/015/0639	S.C. Johnson & Son Private Limited	OFF ! Clean Feel	Icaridin	10.0	Liquid Lotion	02/12/2010
593	I-SlvAE/015/0640	S.C. Johnson & Son Private Limited	Baygon Protector Multi Insect Killer	Tetramethrin Cypermethrin d-allethrin	0.30 0.15 0.10	Solvent-based Aerosol	03/12/2010
594	I-SlvAE/015/0641	S.C. Johnson & Son Private Limited	Baygon Protector Flying Insect Killer Dual Action (2 in 1)	Tetramethrin Permethrin d-allethrin	0.35 0.10 0.10	Solvent-based Aerosol	03/12/2010
595	I-GelRB/120/0642	Joo Yong Co Pte Ltd	Combat Platinum Roach Killing Gel	Fipronil	0.01	Gel Bait	17/02/2011
596	I-XrBRI/045/0643	Best Chemical Co (S) Pte Ltd	Fourstar Microbial Briquets	Bacillus sphaericus Serotype H5a5b, strain 2362 Bacillus thuringiensis subsp. Israelensis, strain BMP 144	6.0 1.0	Briquets	18/02/2011
597	I-XrBRI/045/0644	Best Chemical Co (S) Pte Ltd	Fourstar Bti Briquet	Bacillus thuringiensis subsp. Israelensis Str	7.0	Briquets	18/02/2011
598	I-GrnRB/058/0645	Teba Engineering & Enterprises	"Dragonfly" Kill Ants & Cockroaches	Cypermethrin Borax	1.0 4.0	Granular Bait	18/02/2011
599	I-WtrAE/062/0646	Sensatec (Asia) Pte Ltd	Combat Relaxing Water Based Aerosol	d-phenothrin tetramethrin	0.135 0.243	Water-based Aerosol	28/02/2011
600	I-OilAE/062/0647	Sensatec (Asia) Pte Ltd	Combat Speed	Imiprothrin d-T80-Cyphenothrin	0.1 0.3	Oil-based Aerosol	28/02/2011
601	I-WdsGR/007/0648	Bayer (South East Asia) Pte Ltd	K-Othrine WG250	Deltamethrin	25.0	Water-dispersible Granule	09/05/2011
602	R-PstRB/008/0649	Agro Technic Pte Ltd	Glodacid Plus Paste Bait	Brodifacoum	0.005	Paste Bait	09/05/2011
603	I-EmICN/046/0650	Syngenta Asia Pacific Pte Ltd	Icon 2.5EC	Lambda-Cyhalothrin	2.8	Emulsifiable Concentrate	09/05/2011

附件十二

香港除害劑各類註冊申請單

(依序為除害劑產品、牌照、許可證與
輸入/出證)

申請人應填上一切資料詳情，並提供夾附
提要內所列各項的技術資料。(一式兩份)
APPLICANTS SHOULD COMPLETE ALL
DETAILS AND PROVIDE TECHNICAL
DATA (IN DUPLICATE) ON ALL ITEMS
LISTED IN THE ATTACHED NOTES.

請勿填寫
For official use only
Date received:
Receipt No.:
& Date: / /
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香港特別行政區政府
除害劑條例(香港法例第 133 章)
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
PESTICIDES ORDINANCE, CAP.133
申請除害劑註冊
(請填一式兩份)
APPLICATION FOR REGISTRATION OF A PESTICIDE
(TO BE COMPLETED IN DUPLICATE)

第 I 部: 一般資料

PART I: GENERAL INFORMATION

申請人姓名 Name of applicant	
公司名稱 Name of Company	
公司地址 Company address	
電話／傳真號碼／電郵 Phone/Fax Number/E-mail	／ ／
除害劑製造商名稱及地址 Name and address of pesticide manufacturer	

第 II 部: 除害劑資料摘要

PART II: SUMMARY OF INFORMATION ON PESTICIDE

通用名稱 (ISO 或 ANSI 或 BSI) Common name(s) of pesticide (ISO or ANSI or BSI)	
化學名稱(IUPAC) Chemical name(s) (IUPAC)	
商標/產品名稱 Trade/Brand name	
除害劑類別(例如：除蟲劑) Type of pesticide (e.g. insecticide)	
配方類別(例如：AE, EC, WP) Type of formulation (e.g. AE, EC, WP)	
濃度(以% w/v 或 % w/w 計算) Concentration (in % w/v or % w/w)	
預期用途 (例如：農用、家居用等) Intended use of the pesticide (e.g. Agricultural use, domestic use etc.)	

簡寫

Abbreviations:

ANSI = 美國國家標準協會 American National Standards Institution

BSI = 英國標準局 British Standards Institution

ISO = 國際標準化組織 International Organization for Standardization

IUPAC= 理論化學和應用化學國際聯會 International Union of Pure and Applied Chemistry

本人現申請給予上述名稱之除害劑註冊，並明白所有除害劑一經註冊，即須按照除害劑規例的規定，將除害劑適當包裝和附上標籤。此外，下列與各註冊除害劑有關的資料，均載列於供市民查閱的除害劑註冊紀錄冊：

- (a) 該除害劑為人所知和在零售或供應時所採用的化學名稱及通用名稱(如有的話)；
- (b) 准以零售方式零售或供應的除害劑的活性成分濃度及該除害劑的劑型；
- (c) 申請將該除害劑註冊的每一人的姓名或名稱及地址；及
- (d) 該除害劑的註冊的規限條件(如有的話)。

I hereby apply for registration of the above named pesticide and, in doing so, understand that all pesticides once registered must be properly packed and labelled in accordance with the Pesticides Regulations, and that the following information relating to each registered pesticide is entered into the Pesticides Register which is open for public inspection:

- (a) the chemical name and the common name, if any, by which the pesticide is known and under which it is to be sold or supplied;
- (b) the concentration of the active ingredients and formulation of the pesticide permitted for retail sale or supply;
- (c) the name and address of each person who applied for the registration of the pesticide; and
- (d) the conditions, if any, subject to which the pesticide is registered.

(申請人簽署)
(Signature of Applicant)

(日期)
(Date)

(職位)
(Position in Company)

(公司印鑑)
(Company chop)

重要事項

請確保已遞交提要內所需的一切資料和證明文件。

為了遵守世界貿易組織《與貿易有關的知識產權協議》第 39(3)條的規定以及在該條的規限下，所有得來不易的未公布測試資料或其他資料，在送交漁農自然護理署作申請除害劑註冊用途後，會：

- 被視作機密資料及保密；
- 只限數位有需要知道該等資料作註冊用途的公務員查閱；及
- 永不用於其他註冊申請，除非獲原資料的供應者書面授權。

IMPORTANT

Please ensure that all the necessary information and supporting documents as required on the attached notes are supplied.

In compliance with and subject to the provisions in Article 39(3) of the Agreement on Trade-Related Aspects of Intellectual Property Rights under World Trade Organization, all data relating to undisclosed test or other data, the origination of which involves a considerable effort, upon being submitted to the Agriculture, Fisheries and Conservation Department for the purpose of applying for the registration of a pesticide, are:

- ? Considered and kept confidential;
- ? Only viewed by a limited number of Government officers on a need-to-know basis for registration; and
- ? Never used in other registration applications unless under written authorization from the supplier of the original data.



個人資料收集聲明

- ?? 你所提供的個人資料將用作申請本署的除害劑註冊的有關事宜。依據《除害劑規例》第 4(2)條的規定，除害劑如經註冊，其註冊申請人的姓名或名稱及地址須記錄在除害劑註冊紀錄冊內，公開讓公 慾H士查閱。
- ?? 除那些得來不易的未公布測試資料或其他資料外，本署可向任何代理人、承辦商或其他政府部門提供上述個人資料或其任何部分，以供作除害劑註冊申請的統計或調查用途。
- ?? 除個人資料(私隱)條例所訂明的豁免外，你有權查閱和更改你的個人資料。
- ?? 查閱和更改個人資料的要求應以書面形式向漁農自然護理署署長提出，地址為九龍長沙灣道三〇三號長沙灣政府合署五樓，同時請註明你在本署的檔案號碼。



Personal Information Collection Statement

- ??The personal data provided by you will be used for purposes relating to the application for pesticide registration in this Department. If the pesticide is registered, the name and address of the person applying for the registration of pesticide would be entered into the Pesticides Register for open inspection pursuant to section 4(2) of the Pesticides Regulations.
- ??Except for data relating to undisclosed test or other data, the origination of which involves a considerable effort, the said personal data or any part thereof may be supplied by this Department to any agent, contractor or other government departments for statistics or investigation purpose in relation to the application of pesticide registration.
- ??Subject to exemptions under the Personal Data (Privacy) Ordinance, you have a right of access and correction with respect to personal data.
- ??Request for personal data access and correction should be addressed to Director of Agriculture, Fisheries and Conservation at 5/F., Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Kowloon. Please also quote your reference number in this Department.

申請除害劑註冊時所需資料提要

NOTES ON INFORMATION REQUIRED WHEN SUBMITTING A PESTICIDE FOR REGISTRATION

申請除害劑註冊，必須提供以下技術資料(一式兩份)

The following technical data MUST be supplied (in duplicate) when applying for registration of a pesticide.

A. 活性成分的資料

INFORMATION ON THE ACTIVE INGREDIENT(S)

1. 通用名稱(ISO 或 ANSI 或 BSI)
Common name(s) (ISO or ANSI or BSI)
2. 化學名稱(IUPAC)
Chemical name(s) (IUPAC)
3. 除害劑類型
Pesticide Group
4. 其他名稱(商標/產品名稱)
Other name (Trade/Brand name)
5. 分子式和結構式
Empirical and structural formula
6. 分子量
Molecular weight
7. 活性成分產品的物料安全資料表
MSDS of active ingredient product
8. 物理特性
Physical properties
 - a. 溶點
melting point
 - b. 沸點
boiling point
 - c. 比重
specific gravity
 - d. 折射率
refractive index
 - e. 蒸氣壓力 (mmHG 於 20°C)
vapor pressure (mmHg at 20°C)
 - f. 其他有關揮發性的資料
other volatility data
 - g. 活性成分及工業製品在水中之可溶性
solubility of active ingredients and technical product in water
 - h. 活性成分及工業製品在水中之隱定性
stability of active ingredients and technical product in water
 - i. 活性成分及工業製品在其他溶劑之可溶性
solubility of active ingredients and technical product in other solvents
 - j. 在水與不混溶的有機溶劑之間的分配系數
partition coefficient between water and an immiscible organic solvent
 - k. 其他詳情
others
9. 化學特性
Chemical properties
 - a. 穩定性(在空氣、水中、光穩定性、熱力降解)
stability (in air, in water, photostability, thermal degradation)
 - b. 在配方中使用的有機溶劑下之穩定性
stability in organic solvents used in the formulation
 - c. 在水中的半衰期
half-life in aquatic system
 - d. 在土壤中的半衰期
half-life in soil
 - e. 分解物
breakdown product
 - f. 腐蝕性
corrosiveness

- g. 閃點
flash point
- h. 可燃性
flammability
- i. 其他詳情
others
- 10. 詳細產品製造方法(高純度/工業用的活性成分)
Details of method of manufacturing pure active ingredient(s)/technical material(s)
- 11. 詳細分析方法(高純度/工業用的活性成分)
Details of method of analysis of pure active ingredient(s)/technical material(s)
- 12. 在製造過程中, 活性成分有關的已知污染物或雜質
Known contaminant(s) or impurity(ies) associated with the active ingredient(s) in the manufacturing process

B. 配方資料

INFORMATION ON THE FORMULATION

- 1. 包裝類別
Type of packing
- 2. 完整組成份及作用(包括非主成份的化學屬性)
Complete composition and functions including chemical identity of inert ingredients
- 3. 配方的物理狀況及性質
Physical condition and nature of the formulation
- 4. 配方物品/配方製品的穩定性及其有效期
Stability of the formulation/formulated product and its shelf life
- 5. 對包裝物料和施用器械的腐蝕性
Corrosiveness towards packing materials and application equipment
- 6. 在貯存及施用情況下的可燃性
Flammability under storage and application conditions
- 7. 配方物品的詳細製造方法
Details of method of manufacturing the formulation
- 8. 配方物品的詳細分析方法
Details of method of analysis of the formulation
- 9. 配方物品的效能測試
Efficacy test of the formulation
- 10. 植物及食物中殘留物的詳細分析方法
Details of method of analysis of residues in plant and foodstuff
- 11. 不能與其他除害劑混和的資料(如該配方擬供作農業用途)
Incompatibility with other pesticide(s) (for formulations intended for agricultural use only)
- 12. 關於施用、存放、運輸或火警時的建議處理方法和注意事項
Recommended methods and precautions concerning handling, storage, transport or fire etc.
- 13. 淨化/中和劑
Decontamination/neutralizing agent
- 14. 配方物品及其容器的棄置方法
Disposal method for the formulation and its container

C. 有關除害劑使用的資料

INFORMATION ON PESTICIDE USAGE

- 1. 在註冊國家已獲批准的產品標籤, 小冊子(例如註冊證書、註冊編號、註冊限制、註冊條件)
Approved label, product brochure in registered countries (e.g. registration certificates, registration no., registration restrictions, registration conditions)
- 2. 建議用途(例如使用方式, 施用地點)
Recommended uses (e.g. use pattern, application sites)
- 3. 使用說明(例如施用方法和劑量)
Instruction for use (e.g. application method and dosage)
- 4. 不可使用該除害劑的特殊情況
Special conditions under which the pesticide may not be used
- 5. 標籤上注意事項
Precautionary statements on label

6. 所針對的目標生物
Target organism(s)
7. 對有害物的影響(例如接觸、吸入中毒、消化中毒、內吸性、真菌毒性)
Effects on pests (e.g. contact, inhalation poison, stomach poison, systemic, fungitoxic)
8. 作用模式
Mode of action
9. 植物藥害(只限應用於植物上的除害劑)
Phytotoxicity (for pesticide applying on living plants only)
10. 跟其他除害劑的相容性
Compatibility with other pesticides
11. 應用於密閉環境的除害劑：可再進入的相隔時間
For pesticide applied to closed environment: Re-entry lapse time
12. 應用於糧食作物的除害劑
For pesticide used on food crops:
 - a. 收成前之安全間隔期
pre-harvesting interval
 - b. 在已予註冊國家，同一除害劑的最高殘留量（殘留極限）與及每日允許攝入量
maximum residue limit (tolerance level) and acceptable daily intake (ADI) in countries where the same pesticide has been registered

D. 活性成分與製品的毒性資料

INFORMATION ON TOXICITY OF THE ACTIVE INGREDIENT(S) AND PRODUCT

1. 活性成分及配方物品／配方製品對哺乳類動物的急性毒性
Acute toxicity of active ingredient(s) & formulation(s)/formulated product(s) in mammals:
 - a. 急性口服致死中量
acute oral toxicity (LD50)
 - b. 急性經皮致死中量
acute dermal toxicity (LD50)
 - c. 吸入致死中量
inhalation toxicity (LC50)
 - d. 對眼睛的刺激程度
degree of irritation to eyes
 - e. 對皮膚的刺激／敏感程度
degree of skin irritation/sensitization
2. 活性成分與配方製品的慢性毒性
Chronic toxicity of active ingredient (s) and formulated product(s)
3. 活性成分與配方製品的無察覺有害作用劑量
No observable effect level of active ingredient (s) and formulated product(s)
4. 活性成分的其他毒性研究（長期／短期）
Supplementary toxicity studies (long/short term) of active ingredient(s) on :
 - a. 致癌作用
carcinogenicity
 - b. 對生育的毒性，包括致畸作用
reproductive toxicity including teratogenicity
 - c. 致突變作用
mutagenicity
 - d. 對神經的毒性
neurotoxicity
5. 活性成分在哺乳類動物的存留程度和新陳代謝的分解途徑
Persistence and metabolic breakdown pathway of the active ingredient(s) in mammal

E. 活性成分與製品的環境學研究資料

INFORMATION ON ENVIRONMENTAL STUDIES OF THE ACTIVE INGREDIENT(S) AND PRODUCT

1. 在土壤中的積聚及殘效影響
Accumulation and residual effect in soil
2. 在魚類/其他水中生物的積聚
Accumulation in fish/other aquatic organisms
3. 生物積聚特性
Bioaccumulation property

4. 土壤新陳代謝，有氧及無氧新陳代謝和分解物
Soil metabolism, aerobic and anaerobic with metabolites and breakdown product
5. 在水中的生物退滅作用，有氧及無氧新陳代謝和分解物
Biodegradation in aquatic systems, aerobic and anaerobic with metabolites and breakdown product
6. 土壤的吸收和非吸收作用與及新陳代謝和分解物的流動量
Adsorption and desorption in soil and mobility of metabolites and breakdown product
7. 水中的附吸及解吸作用
Adsorption and desorption in water
8. 活性成分及配方製品對益蟲的毒性或影響
Effect or Toxicity of active ingredient(s) and formulated product(s) to beneficial insects
9. 活性成分及配方製品對捕食性昆蟲/寄生性昆蟲的毒性或影響
Effect or Toxicity of active ingredient(s) and formulated product(s) to predatory/parasitic insects
10. 活性成分及配方製品對魚類的毒性或影響
Effect or Toxicity of active ingredient(s) and formulated product(s) to fish
11. 活性成分及配方製品對鳥類的毒性或影響
Effect or Toxicity of active ingredient(s) and formulated product(s) to bird
12. 活性成分及配方製品對禽畜及寵物的毒性或影響
Effect or Toxicity of active ingredient(s) and formulated product(s) to livestock and pets
13. 活性成分及配方製品對野生生物的毒性或影響
Effect or Toxicity of active ingredient(s) and formulated product(s) to wildlife
14. 活性成分及配方製品對水中無脊椎動物的毒性或影響
Effect or Toxicity of active ingredient(s) and formulated product(s) to aquatic invertebrates
15. 活性成分及配方製品對土壤微生物的毒性或影響
Effect or Toxicity of active ingredient(s) and formulated product(s) to soil microorganisms
16. 活性成分及配方製品對土壤生態的影響
Impact of active ingredient(s) and formulated product(s) on soil ecology
17. 在泥土中或建築材料上之殘效影響（尤其是除草劑／能與泥土混和的內吸性除害劑，熏蒸劑）
Residual effect in soil (especially for herbicides/systemic soil-incorporation pesticides, fumigants) or building materials
18. 活性成分在環境中的存留程度和新陳代謝的分解途徑
Persistence and metabolic breakdown pathway of the active ingredient(s) in the environment
19. 活性成分及配方製品對非針對害物的毒性
Toxicity of active ingredient(s) and formulated product(s) to non-target pests

F. 中毒時須採取的措施

MEASURES TO BE TAKEN IN CASE OF INTOXICATION

1. 發生活性成分／配方物品中毒事件時所應進行的急救治療
First aid treatment for active ingredient(s)/formulation intoxication incidents
2. 活性成分／配方物品的解毒劑
Antidote(s) for the active ingredient(s)/formulation

G. 在其他國家的註冊情況

REGISTRATION STATUS IN OTHER COUNTRIES

倘有關除害劑曾在其他國家註冊，請註明其配方，活性成分濃度，使用方式及所受管制（如有的話）。註冊文件包括已在該國審批之標籤及小冊子亦應一併遞交。

Please specify the formulation, concentration of active ingredient(s), use pattern, and restrictions (if any) placed on pesticide if registered in other countries. Registration documents including approved original label and brochure in registered countries should also be supplied.

H. 注意事項

NOTE :

如提交之資料為中文或英文以外的語文，申請人必須提交一份核證為該文件的全文譯本。

Certified official translation is required if information provided is not in Chinese or English language

- End -

香港特別行政區政府
除害劑條例(香港法例第 133 章)
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
PESTICIDES ORDINANCE, CAP.133

除害劑牌照申請表
(請填一式兩份)
APPLICATION FOR PESTICIDES LICENCE
(To be completed in duplicate)

第 I 部: 一般資料
PART I: GENERAL INFORMATION

公司名稱 Name of Company	
公司地址 Company Address	
負責人姓名 (中文及英文) Name of Responsible Person (Eng. & Chin.)	*先生／小姐 *Mr./Miss
*身分證／護照 號碼 *Identity Card/Passport No.	
電話／傳真號碼／電郵 Phone/Fax number/E-mail	
通訊地址 (如與上不同) Correspondence Address (If different)	

* 請刪去不適用的項目 Delete where not applicable

本人現申請除害劑牌照，其詳細資料如下：。
I hereby apply for a Pesticides Licence. The detailed information is marked below :

	第 I 部 Part I	第 I 部和 第 II 部** Part I & II	樓宇地址 Address of Premises
1. 進口／供應 Import/Supply			
2. 零售 Retail			
3. 貯存 Storage [‡]			
4. 製造 Manufacture [‡]			
5. 再包裝 Repackage [‡]			

** 請在適當的空格內加上✓號 Please tick appropriate box(es).

[‡] 請填寫附頁 Please fill in the supplement.

第 II 部: 聲明
PART II: DECLARATION:

在申請此除害劑牌照時，本人明白
In applying for a Pesticides Licence, I understand that

- 除害劑只有盛載在經批准之容器內始能在本地售賣或供應。
pesticides may be sold or supplied locally only in approved containers.
- 除害劑必須按照除害劑規例正確地貼上標貼。
pesticides must be properly labelled in accordance with the Pesticides Regulations.
- 售賣除害劑將受該除害劑註冊時之條件所限制。
the sale of a pesticide shall be subject to the conditions of registration of that pesticide.
- 售賣除害劑將受該除害劑牌照之條件所限制。
the sale of a pesticide shall be subject to the conditions of the Pesticides Licence.

本人現呈交下列文件
I submit the followings:

- ☐ 商業登記証影印本 Photocopy of Business Registration Certificate;
☐ 東主證明 Ownership Proof (只適用於無限公司 for unlimited company only).
☐ 劃線支票(抬頭 '香港特別行政區政府') Crossed cheque (payable to "THE GOV'T OF HKSAR")

如有任何查詢，歡迎致電 **2150 7007** 與本署職員聯絡。For enquiries, please contact our staff at **2150 7007**.

個人資料收集聲明

Personal Information Collection Statement

- 你所提供的資料將用作申請本署的除害劑牌照、許可證或註冊的有關事宜。
The information provided by you will be used for purposes relating to the application for Pesticides Licence, Permit or Registration in this department.
- 本署可能會將你的資料或部份資料提供給任何代理商、承包商或其他政府部門作統計或調查之用途。
The said information or any part thereof may be supplied by this department to any agent, contractor or other government departments for statistics or investigation purpose.
- 除個人資料(私隱)條例所訂明的豁免外，你有權查閱和改正你的個人資料。
Subject to exemptions under the Personal Data (Privacy) Ordinance, you have a right of access and correction with respect to your personal data.
- 查閱和改正個人資料的要求應以書面形式向漁農自然護理署署長提出，地址為九龍長沙灣道 303 號長沙灣政府合署 5 樓，同時請註明你在本署的檔案號碼。
Request for personal data access and correction should be addressed to Director of Agriculture, Fisheries and Conservation at 5/F., Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Kowloon. Please also quote your reference number in this department.

(公司負責人簽署)
(Authorised Signature of Responsible Person for and
on behalf of the Company)

(公司印鑑)
(Company Chop)

(職位)
(Position in Company)

(日期)
(Date)

只供漁農自然護理署職員填寫 For official use only ALIC: Ref.: () in AF GR PPR 01/ pt.

Correspondence address	Yes/No/NA	Recommendation:	Date	Signature	Designation		
Signature	Yes/No		Endorsement:				
BRC copy	Yes/No			Approval:			
ID Checked	Yes/No						
ID/Passport No.	()						
Name (Chin.)							
Name(Eng.) Mr/Ms							
Corporation	Yes/No						
Ownership Proof	Yes/No/NA						
Part (I/II)		Licence fee (\$_____) received on ____/____/____ Receipt No. _____ Licence No. _____ mailed on _____ by _____					
Type (EISLM)							
Satisfactory Inspection date							

貯存/製造/再包裝的資料的附頁
Supplement for storage / manufacture / repackaging

A. 樓宇資料(貯存/製造/再包裝)

Information of premises (storage/manufacture/repackaging)

公司名稱 Company name			
樓宇地址 Address of the premises			
樓宇類型 (例: 工廠大廈) Type of the premises (eg. Industrial building)			
樓宇面積 Area of the premises			
建築材料 Building Material of the premises			
消防設備 Fire equipment			
已事先獲下述部門批准 Prior approval has been granted by:	*	詳請 Details	
環境保護署 Environmental Protection Department			
消防處 Fire Services Department			
地政總署 Lands Department			
其他 Other(s)			

* 請在適當的空格內加上✓號 Please tick appropriate box(es).

B. 除害劑的製造及/或再包裝的資料

Information on local manufacture and/or repackaging of pesticides.

使用之化學品 Chemicals to be used			
涉及之配方 Formulations involved			
設施與器材 Facilities & equipment			
估計年產量 Estimated annual production			
這些除害劑用於 The pesticides are for	: 本銷 supply/ retail in the local market : 出口 export	*	

* 請在適當的空格內加上✓號 Please tick appropriate box(es).

香港特別行政區政府

除害劑條例（香港法例第133章）

THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

PESTICIDES ORDINANCE, CAP. 133

除害劑牌照續牌申請書

APPLICATION FOR PESTICIDES LICENCE RENEWAL

本人（持牌人）

I, (Licensee) _____

謹代表（公司名稱）

On behalf of (Company Name) _____

公司地址

Company Address _____

電話

傳真號碼

電郵

Telephone No. : _____

Fax No. : _____

E-mail : _____

1. 現附上 Enclose the Following :

- (i) 繳交續牌費用（請參閱右方機印之金額。如用支票，請劃線及抬頭『香港特別行政區政府』） Payment for the renewal fee (Please refer to the amount indicated on the right. Cheques should be crossed and made payable to 'The Government of the Hong Kong Special Administrative Region'.)
- (ii) 有效的公司商業登記證影印本 A photocopy of the valid Business Registration Certificate(s).

2. 申請更改項目（如有更改始須填寫） Application for variation (only completed if appropriate)

在申請續牌的同時，本人擬一併申請在除害劑牌照上作下述更改

Concurrent with this renewal request, I also apply for the following change(s) to the Pesticides Licence.

☐

持牌人更改為 *先生／小姐

Licensee change to *Mr/ Miss

*身分證／護照 號碼

*Identity Card / Passport No. _____

☐

通訊地址改為

Correspondence address change to _____

☐

營業地址改為

Business address change to _____

☐

其他

Other _____

* 請刪去不適用的項目 Delete where not applicable

（持牌人簽署） (Signature of Licensee)

（公司印鑑） (Company Chop)

（職位） (Position in Company)

（日期） (Date)

申請方法 Applying method:

- (I) 如用郵寄方法申請，請把申請書寄往『九龍長沙灣道303號長沙灣政府合署5樓』。 If apply by mail, please send the application to "5/F, Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Kln."
- (II) 如欲親臨辦理，請先到長沙灣政府合署5樓3-4號窗。 If apply in person, please go to "counter no. 3-4, 5/F., Cheung Sha Wan Government Offices" first.

個人資料收集聲明 Personal Information Collection Statement

- 你所提供的資料將用作申請本署的除害劑牌照、許可證或註冊的有關事宜。The information provided by you will be used for purposes relating to the application for pesticides licence, permit or registration in this Department.
- 本署可能會將你的資料或部份資料提供給任何代理商、承包商或其他政府部門作統計或調查之用途。The said information or any part thereof may be supplied by this department to any agent, contractor or other government departments for statistics or investigation purpose.
- 除個人資料(私隱)條例所訂明的豁免外，你有權查閱和改正你的個人資料。Subject to exemptions under the Personal Data (Privacy) Ordinance, you have a right of access and correction with respect to personal data.
- 查閱和改正個人資料的要求應以書面形式向漁農自然護理署署長提出，地址為九龍長沙灣道303號長沙灣政府合署5樓，同時請註明你在本署的檔案號碼。Request for personal data access and correction should be addressed to Director of Agriculture, Fisheries and Conservation at 5/F., Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Kowloon. Please also quote your reference number in this Department.

PAID on _____ M/R No. _____

For official use only

☐ ID Checked☐ ID Not checked

查詢請電
For enquiries please phone
2150 7008

只供漁農自然護理署職員填寫

For official use only

接收日期: Date received:

TRY44 No.:

& Date: / /

dd mm yy

申請費 Application Fee : \$ _____

香港特別行政區政府
除害劑條例(香港法例第 133 章)

THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

PESTICIDES ORDINANCE, CAP.133

申請除害劑許可證

(請填一式兩份)

APPLICATION FOR PESTICIDES PERMIT

(To be completed in duplicate)

第 I 部: 一般資料

PART I: GENERAL INFORMATION

公司名稱 Name of Company	
負責人姓名 Name of Responsible Person	*先生 / 女士 *Mr. / Ms.
負責人* 香港身份證 / 護照 號碼 * H. K. Identity Card / Passport Number of Responsible Person	
公司地址 Company Address	
電話 / 傳真號碼 Phone / Fax Number	
通訊地址 (如與上不同) Correspondence Address (If different)	

* 請刪去不適用的項目 Please delete where appropriate.

本人現申請除害劑許可證以便在下述地址進行各該未註冊除害劑的所指活動。

I hereby apply for a Pesticides Permit to conduct the indicated activities with an unregistered pesticide at the following address.

樓宇地址
Address of premises

	**	
1. 進口／供應 Import/Supply	☐ 於	_____
		at
2. 貯存 Store	☐ 於	_____
		at
3. 再包裝 Repack	☐ 於	_____
		at
4. 製造 Manufacture	☐ 於	_____
		at
5. 零售 Retail	☐ 於	_____
		at
6. 使用 Use	☐ 於	_____
		at

** 請在適當的空格內加上✓號 Please tick the appropriate box(es).

除害劑之一般名稱(ISO 或 BSI) Common name of pesticide (ISO or BSI)
化學名稱(IUPAC) Chemical name(s) (IUPAC)
商標／產品名稱 Trade/Brand name
除害劑類別 (例如除蟲劑) Type of pesticide (e.g. insecticide)
配方類別 (例如 WP, EC) Type of formulation (e.g. WP, EC)
濃度 (以% w/w 或 % w/v 計算) Concentration (in % w/w or w/v)
進口目的 Purpose of importation
預算首批除害劑付運的日期及數量 Intended date & quantity of the first shipment
除害劑的包裝 Packing of pesticide

第 II 部: 配方製品及其有效成份的技術資料
(以下資料應另紙提供，並連同有關文獻及物料安全資料一併遞交)

PART II: TECHNICAL INFORMATION OF ACTIVE INGREDIENT(S) & THE FORMULATED PRODUCT
(It should be provided in separate sheets with supporting literature and a Material Safety Data Sheet)

– 大白鼠及其他之急性口服致死中量 Acute oral LD50 value for rat and others – 大白鼠及其他之急性經皮致死中量 Acute dermal LD50 value for rat and others – 解毒劑 Antidote(s) – 急救治療 First aid treatment – 淨化／中和劑 Decontamination / neutralization agent(s) – 有效成份的分析方法 Analytical method of the active ingredient(s) – 倘製成品預算在本地使用: If the finished product is intended for local use: • 配方製品的分析方法 Analytical method of the formulated product • 除害劑殘留物質的分析方法 Analytical method of the pesticide residue • 建議在處理原劑時應穿戴的保護性衣物 Recommended protective clothing when handling concentrate
--

註釋： 英國標準局 BSI = British Standards Institution
NOTE: 國際標準化組織 ISO = International Standardization Organization
理論化學和應用化學聯會 IUPAC = International Union of Pure and Applied Chemistry

第 III 部: 除害劑在本地製造及再包裝的資料(第 I 部方格 3 和/或 4 有✓才須填寫)

PART III: INFORMATION ON LOCAL MANUFACTURE AND REPACKING OF PESTICIDES
(only to be completed if boxes 3 and/or 4 were ticked in Part I)

使用之化學品 Chemicals to be used	
涉及之配方 Formulation(s)	
設施與器材 Facilities & Equipment	
年產量 Annual production	
**	
這些除害劑用於 The pesticides are for	: 出口 Export ☐ : 其他用途 Other uses ☐ _____
已獲下述部門事先批准: Prior approval has been granted by:	
環境保護署 Environmental Protection Department	** ☐ _____
消防處 Fire Services Department	☐ _____
地政總署 Lands Department	☐ _____
其他 Other(s)	☐ _____

****** 請在適當的空格內加上✓號 Please tick the appropriate box(es).

個人資料收集聲明

- 你所提供的資料將用作申請本署的除害劑牌照、許可證或註冊的有關事宜。
- 本署可能會將你的資料或部份資料提供給任何代理商、承包商或其他政府部門作統計或調查之用途。
- 除個人資料(私隱)條例所訂明的豁免外，你有權查閱和改正你的個人資料。
- 查閱和改正個人資料的要求應以書面形式向漁農自然護理署署長提出，地址為九龍長沙灣道 303 號長沙灣政府合署 5 樓，同時請註明你在本署的檔案號碼。

Personal Information Collection Statement

- The information provided by you will be used for purposes relating to the application for pesticides licence, permit or registration in this department.
- The said information or any part thereof may be supplied by this department to any agent, contractor or other government departments for statistics or investigation purpose.
- Subject to exemptions under the Personal Data (Privacy) Ordinance, you have a right of access and correction with respect to personal data.
- Request for personal data access and correction should be addressed to Director of Agriculture, Fisheries and Conservation at 5/F, Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Kowloon. Please also quote your reference number in this department.

第 IV 部: 聲明

PART IV: DECLARATION:

在申請此除害劑許可證時，本人明白倘申請獲批准，本人將要對此許可證負上責任，並且將要遵守許可證內所列出的全部規條。本人現呈交下列文件：

In applying for a Pesticides Permit, I understand that if this application is approved, I shall be responsible for the permit and shall comply with all the conditions set out on the permit. I submit the followings:

- ☐ 商業登記証影印本 Photocopy of Business Registration Certificate;
- ☐ 東主証明 Ownership Proof (只適用於無限公司 for unlimited company only).
- ☐ 劃線支票(抬頭 '香港特別行政區政府') Crossed cheque (payable to "THE GOV'T OF HKSAR")

(公司負責人簽署 / Authorised signature of Responsible
Person for and on behalf of the company)

(日期 / Date)

(職位 / Position in Company)

(公司印鑑 / Company chop)

香港特別行政區政府
除害劑條例(香港法例第 133 章)

THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
PESTICIDES ORDINANCE, CAP.133

許可證續期申請 APPLICATION FOR PERMIT EXTENSION
(請填寫一式兩份 To be completed in duplicate)

本人(負責人)

I (Responsible Person),

謹代表(公司名稱)

on behalf of (company)

位於(地址)

at (address)

電郵地址

E-mail Address

電話 / 傳真 號碼

Phone / Fax No.

/

現就除害劑許可証編號

hereby apply for extension of Pesticides Permit No.

申請續期六個月，由

for another 6 months with effect from

起生效。

1. 所需文件 REQUIRED DOCUMENTS

現夾附下列文件，以供續期之用 I enclose the following documents to support my application.

a. 許可證正本以供加簽

The original permit for endorsement.

b. 繳交續期費用共港幣 (如用支票，請劃線，抬頭人「香港特別行政區政府」)

Payment for the extension fee of HK\$

(Cheque should be crossed and made payable to 'The Government of the Hong Kong Special Administrative Region')

c. 一份認證報表，列明由 至下開日期有關除害劑入口 / 供應 / 再出口 / 使用及其完整交易紀錄、存貨量。

A certified statement of complete transaction record & stock balance in respect of the import / supply / re-export / use of the relevant pesticide from to the date.

d. 有效的公司商業登記證影印本

A photocopy of the valid Business Registration Certificate(s).

2. 申請更改項目 (有更改才須填寫) APPLICATION FOR VARIATION (only to be completed if appropriate)

在申請續期的同時，本人擬一併更改除害劑許可證中的下述項目 (必須附同有關文件，如有效商業登記證影印本)

Concurrent with this extension request, I also apply for the following change(s) to the Pesticides Permit. (Relevant supporting document(s) such as a photocopy of the valid Business Registration Certificate must be provided.)

*

☐

負責人

改為

**先生 / 女士

**香港身份證 / 護照 號碼

Responsible Person changes to

**Mr. / Ms.

**H.K. ID Card / Passport No.:

☐

地址

改為

Address

changes to

☐

其他

Other

* 請在適當的空格內加上✓號 Please tick appropriate box(es).

**請刪去不適用的項目 Please delete where appropriate.

3. 聲明 DECLARATION:

在申請此除害劑許可證續期時，本人明白倘若該申請獲批准，本人將要對此許可證負上責任，並且將要遵守許可證內所列出的全部規條。

In applying for extension of a Pesticides Permit, I understand that if this application is approved, I shall be responsible for the permit and shall comply with all the conditions set out on the permit.

(公司負責人簽署)

(Authorised signature of Responsible Person
for and on behalf of the company)

(日期) (Date)

(職位) (Position in Company)

(公司印鑑) (Company chop)

查詢請電 For enquiries please phone

2150 7008

只供漁農自然護理署職員填寫

For official use only

Collection code: 43

Ref. No.: PPA

Paid on

M/R No.

Original Pesticides Permit (No.:

) is attached for action.

個人資料收集聲明

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- 本署可能會將你的資料或部份資料提供給任何代理商、承包商或其他政府部門作統計或調查之用途。
- 除個人資料(私隱)條例所訂明的豁免外，你有權查閱和改正你的個人資料。
- 查閱和改正個人資料的要求應以書面形式向漁農自然護理署署長提出，地址為九龍長沙灣道 303 號長沙灣政府合署 5 樓，同時請註明你在本署的檔案號碼。

Personal Information Collection Statement

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- Subject to exemptions under the Personal Data (Privacy) Ordinance, you have a right of access and correction with respect to personal data.
- Request for personal data access and correction should be addressed to Director of Agriculture, Fisheries and Conservation at 5/F, Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Kowloon. Please also quote your reference number in this department.

如何填寫除害劑進/出口證

除害劑進/出口證須一式三頁遞交(正本、第一副本及第二副本順序排列)，填寫時可參考下列指引。每項指引的編號分別標示於進/出口證的樣本上，除非特別註明，每項指引均適用於進/出口證。

(1) 香港進口商 / 出口商的名稱及地址

填寫公司名稱及地址。以郵箱號碼替代詳細地址或由「公司甲」代表「公司乙」之申請均不獲接受。如非轉口之除害劑，則進/出口商必須為除害劑牌照/許可證「進口/供應」之持牌公司。

(2) 外地出口商 / 收貨人的名稱及地址

填寫公司名稱及地址，並註明地方名*。如 外地出口商所屬地方與出口地方不同 或 收貨人所屬地方與目的地不同，須於公司名稱前加上「按下列公司指示 (By order of)」/「按下列公司要求 (To order of)」之字樣。

(3) 商業登記證號碼及電話

填寫公司有效商業登記證號碼及聯絡電話。

(4) 抵達 / 離境日期

如確實日期不詳，可填寫預計抵達 / 離境日期。進/出口證申請應在預計抵達 / 離境日期前遞交，以便本署有充份時間處理申請。

(5) 船隻 / 班機 / 車輛編號

填寫運輸方式 (海運、空運、陸運)。如確知船隻、班機、車輛編號亦請註明。

(6) 標記及編號；貨櫃編號

填寫裝運標記及編號。若無裝運標記及編號，應註明「無裝運標記」。

(7) 包裹數目

以文字或數字填寫包裹 / 箱盒等的數目。

(8) 貨品的說明

如屬進/出口除害劑，請填寫除害劑的產品名稱(如有的話)、有效成份(必須以英文註明)、濃度及劑型；如屬轉口除害劑，必須註明除害劑的有效成份(必須以英文註明)，濃度及劑型則可選擇性填寫，但要關資料亦要在全程提單上顯示。

(9) 單位數量

以適當單位 (如公斤、公升) 表明貨品的重量或容量。如屬進/出口除害劑，單位數量前須加上「淨重/淨容量」；如屬轉口除害劑，單位數量前須加上「毛重」。

如每批貨品有多於一種除害劑產品，須就第(7)、(8)、(9)項個別註明每種產品之資料，亦要在全程提單上顯示。

(10) 如屬轉口除害劑，需於空白地方註明「轉口貨品 由 _____(出口地方*) 經香港 往 _____(目的地*) 全程提單號碼 _____」。

(11) 進口商聲明書 (只適用於進口證)

請指出有關貨品是用作本銷或供轉口之用，並將不適用者刪除。如有關貨品是供轉口，請於虛線位置上註明目的地*名稱。

(12) 簽署人姓名

請用正楷寫出簽署人姓名。

(13) 日期、簽署及公司印章

請填寫日期，簽署人簽名及公司蓋章(一式三頁)。

(14) 來源地方

請註明每項貨品的來源地方*，即製造貨品之地方而未必為出口地方。

(15) 來源 / 目的地地方及代碼 (只適用於出口證)

請註明每項貨品的來源地方*、目的地*及其地方代碼*。

(16) 香港製造商 / 加工商名稱及地址 (只適用於出口證)

如在香港製造的貨品，請填寫製造商/加工商的名稱及地址。

2. 不可擦抹或以塗改液塗改進/出口證，應以線條將錯誤處清楚刪去。所有塗改、修訂、刪除、增補的地方均須加蓋公司修訂印章。每份進/出口證上不可有超過三個修訂印章。

IMPORT LICENCE Form 3 進口許可證表格三 ORIGINAL 正本

Foreign Exporter (Name and Address) 外地出口商 (名稱及地址) XYZ CO. LTD. 1230 EAST 1ST STREET LOS ANGELES, CALIFORNIA, 90033, U.S.A.		Date of Issue 發出日期 Licence No. 許可證編號 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION Import and Export Ordinance, Cap. 60 Reserved Commodities Ordinance, Cap. 296 and any other Enactment 香港特別行政區政府 《進出口條例》(第 60 章) 《儲備商品條例》(第 296 章) 及其他成文法則	
Importer (Name and Address) 進口商 (名稱及地址) ABC CO. LTD. RM. 903, LOON KEE BLDG., 267-275 DES VOEUX RD. C., CENTRAL, HONG KONG.		Conditions of issue of this licence include the following 本許可證的發出條件包括以下各項: (i) Normally this form is to be submitted in triplicate. However, for certain categories of goods, which are notified through Trade and Industry Department circulars, quadruplicates are required. 一般而言, 本表格必須一式三份呈交, 但就工業貿易署藉通告通知的若干類貨品而言, 本表格須一式四份呈交。 (ii) The original of this licence shall be the only valid copy against which the goods described herein may be released by the carriers to the importer on arrival in Hong Kong unless special authority to permit release against a certified true copy is granted by the Director-General of Trade and Industry or an officer authorised by him. 本許可證的正本為承運人在本表格所說明貨品運抵香港後發放指定貨物予進口商時作為憑據的唯一有效文本, 但如工業貿易署署長或其授權人員特准憑核證真確文本發放該批貨品則除外。 (iii) This licence must be correctly endorsed by the importer with shipment arrival details (see reverse) and the importer must not take delivery of the goods until the licence has been so endorsed; the original of the licence duly endorsed must then be passed to the shipping, airline or transportation company who should check details given by the importer and return the licence to the Trade and Industry Department together with the relevant manifest. 本許可證必須由進口商正確地批署, 並填上貨品抵埠詳情 (見背頁), 進口商必須將此項批署手續方可領取貨品。本許可證的正本經批署妥當後須交給船運、航空或運輸公司, 而該公司在查核進口商所填報的詳情後, 須將本許可證連同有關船單一併交回工業貿易署。 (iv) The importer must lodge import declarations in respect of items on this licence within 14 days of shipment. 在本許可證所開列的貨品付運後的 14 天內, 進口商必須就該等貨品呈交進口報關單。 (v) This licence is valid for six months from the date of issue. Extension of validity may be granted on application. 本許可證有效期為六個月, 由發出日起計。經申請後, 有效期可能獲准延長。	
Business Reg. No. 商業登記號碼 846001		Tel. No. 電話 2543 2425	
Estimated Date of Arrival 預計抵達日期 12 MARCH 2007			
BY AIR / BY SEA			
WARNING 警告: All alterations must be carried out by authorised officers. Heavy penalties are provided for false declaration and information, unauthorised alterations and misuse of this licence. 只有獲授權人員方可更改本許可證。凡作虛假聲明、提供虛假資料、未獲授權而更改本許可證或不當地利用本許可證者, 可被重罰。			
Marks and Nos.; Container No.; 標記及編號 貨櫃編號 HONG KONG C/NO. 1-10 MADE IN USA		No. and Kind of Packages; Brand and Model; 包裝數目及種類、 牌子及型號 TEN (10) DRUMS	
		DESCRIPTION OF GOODS 貨物的說明 ABC BRAND PESTICIDE FLOCOUMAFEN 0.005% W/W BLOCK BAIT (BB)	
T/S Cargoes from _____ (Exporting Country) to _____ (Destination Country) via Hong Kong under through B/L no. _____.		No. of Units (e.g. kg, litre) 單位數量 (如公斤, 公升) N.W. 2,000 KG	
		*C.I.F. Value HKD *到岸價 (以港元計) \$62,000.00	
		Total 總額 \$62,000.00	
* C.I.F. Value HK comprises the cost of the goods to the HK importer up to the arrival in HK of the vessel, vehicle or aircraft carrying the goods, together with the amount of the insurance, freight and any other charges. HKD means Hong Kong Dollar. * 到岸價包括香港進口商截至載貨船隻、車輛或飛機抵達之時為止所付出的貨品成本 (連保險、運費及任何其他費用在內)。*HKD 指港元。		Exporting Place 出口地方 U.S.A.	
Place of Origin 來源地方 U.S.A.		IMPORTER'S DECLARATION 進口商聲明書 I hereby declare that I am the importer of the goods in respect of which this declaration is made and that the particulars given in this declaration are true and that the goods imported shall be as described. I further declare that the goods are for (a)* local consumption (b)* re-export to CHINA	
Item No. 項目 1		* (Delete (a) or (b) where not applicable) * 請刪去不適用之(a)或(b)項	
2		Signatory's Name in Block Letters 簽署人姓名 (用正楷填寫) CHAN TAI MAN	
3		Date, Signature & Company Chop 日期、簽署及公司印章	
4		Approved 已批准	
5		for Director-General of Trade and Industry (代行) 工業貿易署署長	

IMPORTANT NOTE 重要事項

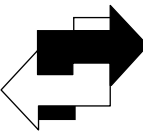
If there is any discrepancy between the English text and the Chinese text of this form, the English text shall be taken as conclusive.
 倘本表格的中英文本有任何差異, 應當以英文本為準。

ARRIVAL DETAILS
貨品抵埠詳情

Importer must type in arrival details and sign that these details are true and correct before tendering licence to shipping, airline or transportation company concerned. Shipping, airline or transportation company must check typed details against Bill of Lading/Air Waybill and manifest and sign in space provided that this has been done. 進口商必須訂上貨品抵埠詳情，並須簽署確認所填報的資料是真實正確的，然後將本許可證遞交船運、航空或運輸公司。有關的船運、航空或運輸公司必須將填報的資料與提單／空運提單及艙單核對，並在下開空白處簽署證明核對妥當。

Date of Arrival 抵達日期 (a)	Name of vessel, voyage/flight No./ vehicle No. 船隻名稱，航程／班機／車輛編號 (b)	Bill of Lading/ Air Waybill No. 提單／空運提單編號 (c)	Goods arriving (Show number of cases and total quantity using same unit as in overleaf) 運來貨品（註明貨箱數目，並以背頁相同的單位註明總數量） (d)	Is there any balance to be imported after this import (State Yes or No) 是否仍有餘下貨品留待下次進口（註明是或否） (e)	Importer's signature declaring that details given in (a) (b) (c) (d) & (e) are true and correct 進口商簽署證明 (a) (b) (c) (d) (e) 各項詳情均真實正確	Shipping, Airline or Transportation company's verification that information has been checked against B/L/AWB and manifest 船運、航空或運輸公司核實證明已將資料與提單／空運提單及艙單核對

EXPORT LICENCE Form 6 出口許可證表格六 ORIGINAL 正本

1	Exporter (Name and Address) 出口商 (名稱及地址) ABC CO. LTD. RM. 903, LOON KEE BLDG., 267-275 DES VOEUX RD. C., CENTRAL, H.K.			Date of Issue 發出日期		Licence No. 許可證編號		
	Business Reg. No. 商業登記號碼 846001			Tel. No. 電話號碼 2543 2425		THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION Import and Export Ordinance, Cap. 60 Reserved Commodities Ordinance, Cap. 296 and any other Enactment 香港特別行政區政府 《進出口條例》(第 60 章) 《儲備商品條例》(第 296 章) 及其他成文法則		
3	Consignee (Name and Address) 收貨人 (名稱及地址) DEF FAR EAST LTD. 6300, SUNSET AVENUE, SYDNEY, AUSTRALIA		Conditions of issue of this licence include the following:- 本許可證的發出條件包括以下各項： (i) Normally the form is to be submitted in duplicate. However for certain categories of goods, which are notified through Trade and Industry Department circulars, triplicates are required. 一般而言，本表格必須一式兩份呈交，但就工業貿易署藉通告通知的若干類貨品而言，本表格須一式三份呈交。 (ii) Any number of items in licensable categories may be entered on this form provided all are shipped at the same time on the same vessel, aircraft or vehicle. 須領取出口許可證的不同類別貨品，如在同一時間全部由同一船隻、飛機或車輛裝運，可在本表格內一併填報，貨品數量不限。 (iii) The original must be given to the shipping, airline or transportation company for return to the Trade and Industry Department together with the relevant manifest. 本許可證的正本須交給船運、航空或運輸公司，由該公司將本許可證連同有關艙單交回工業貿易署。 (iv) The exporter must lodge export declarations in respect of items on this licence within 14 days of shipment. 在本許可證所開列的貨品付運後的 14 天內，出口商必須就該等貨品呈交出口報關單。 (v) The name and address of the Hong Kong manufacturer or processor must be provided for locally produced commodities covered by this licence. 對於本許可證所開列的本地製造商品，必須提供香港製造商或加工商的名稱及地址。 (vi) In case of re-exports, condition (v) does not apply. However, the place of origin of the items must be shown in the box provided for the purpose on this licence. 第(v)項條件不適用於轉口貨品，但必須在本許可證特備的空格內填報該等貨品的來源地方。 (vii) This licence is valid for twenty eight days from the date of issue. 本許可證有效期為二十八天，由發出日期起計。 (viii) HKD means Hong Kong Dollar. "HKD"指港元。					
2	Departure Date 離境日期 15 MARCH 2007							
4	Vessel/Flight/Vehicle No. 船隻/班機/車輛編號							
5	BY SEA / BY AIR							
WARNING : All alterations must be carried out by authorised officers. Heavy penalties are provided for false declaration & information, unauthorised alterations & misuse of this licence. 警告： 只有獲授權人員方可更改本許可證。凡作虛假聲明、提供虛假資料、未獲授權而更改本許可證或不當地使用本許可證者，可被重罰。								
6	Marks and Nos., Container No. 標記及編號，貨櫃編號 HONG KONG C/NO. 1-10 MADE IN USA		No. and Kind of Packages Brand and Model, 包裹數目及種類，牌子及型號 TEN (10) DRUMS		DESCRIPTION OF GOODS 貨品的說明 ABC BRAND PESTICIDE FLOCOUMAFEN 0.005 % W/W BLOCK BAIT (BB)		No. of Units (e.g. kg, litre) 單位數量 (如公斤、公升) N.W. 2,000 KG	F.O.B. Value HKD 離岸價 (以港元計) \$62,000.00
7								
8								
T/S Cargoes from _____(Exporting Country) to _____(Destination Country) via Hong Kong under through B/L no. _____.								10
							Total 總額	\$62,000.00
15	Destination & Code 目的地及代碼 AUSTRALIA AU		EXPORTER'S DECLARATION 出口商聲明書 I hereby declare that I am the exporter of the goods in respect of which this declaration is made and that the particulars given in this declaration are true and that the value declared above is the full value. 本人謹此聲明：本人是本聲明書所指貨品的出口商，本聲明書中填報的資料均屬真實無訛，而且上開填報的價值為全部價值。					
Item No. 項目	Place of Origin 來源地方	Code of Place of Origin 來源地方代碼	Name and Address of HK Manufacturer/Processor 香港製造商/加工商名稱及地址		Signature and Date 簽署及日期			
1	U.S.A.	US	14		12			
2								
3								
4			Approved 已批准		Signatory's Name in Block Letters 簽署人姓名 (用正楷填寫) CHAN TAI MAN			
5			(代) for Director-General of Trade and Industry 工業貿易署署長		Company Chop 公司印章			
					13			

IMPORTANT NOTE 重要事項

If there is any discrepancy between the English text and the Chinese text of this form, the English text shall be taken as conclusive.

倘本表格的中英文本有任何差異，應當以英文本為準。

附件十三

香港除害劑之標示項目說明與範例



除害劑標籤指引

凡任何供應與本港使用的除害劑，必須附有清楚而明確的中英文標籤，而除害劑標籤的法例規定載於除害劑規例第 12 條(第 133 章，附屬法例)〔參閱附錄 1〕。使用此標籤指引的持牌人/供應商有絕對責任確保其除害劑產品上的標籤符合所有此等規定。

使用方法，安全措施，急救指示與警告字句的資料均以對該除害劑之認識、及其劑型、用途、毒性與潛在危險所知為依據。持牌人/供應商應向各方面，尤其是此產品之製造商，索取一切有關此除害劑產品在這方面的資料，並在產品標籤上印上。鑑於某些除害劑或有的最新發展資料及社會人士對除害劑安全標準的期望不斷提高，故持牌人/供應商也必須確保標籤上的指示足以應付現況所需。

為協助持牌人/供應商製備資料標籤，從而令使用者可更安全及有效地使用其除害劑產品，本署現提供以下的指引和兩個除害劑的標籤樣本〔參閱附錄 2〕以作參考。持牌人/供應商必須確保標籤上的指示夠全面，符合現況，並在有需要時予以修訂。因每一除害劑產品均須有其特定之使用指示，本指引及樣本只供一般參考之用。遵從此標籤指引並不能免除持牌人/供應商在除害劑規例(第 133 章，附屬法例)方面的法律義務與責任或其他方面的義務與責任。

1. 警告字眼及字句

除害劑標籤上必須印有以下警告字眼及字句：

- “毒藥”及“POISON”字眼。
- “遠離孩童”及“KEEP OUT OF REACH OF CHILDREN”字句。
- 如果該除害劑具內吸作用，須註明“SYSTEMIC”字眼。
- 如果該除害劑獲漁農自然護理署署長的書面豁免在標籤上加上“毒藥”及英文“POISON”的字眼，則必須以“小心”及英文“CAUTION”字眼取代。

2. 內含成分

- 商用名稱，相關之產品類別〔例如：除草劑、殺蟲劑、殺菌劑、殺鼠劑〕及其使用模式，例如：農業、工業、衛生滅蟲用途等〕。
- 劑型種類---名稱及代號〔請參照附錄 3：劑型代號表〕。
- 化學名稱及通用名稱。
- 除害劑的註冊編號。
- 內含物的淨重量或淨體積。
- 所有活性成份的組成百分比。

3. 使用方法

- 如何混合、調配及應用藥劑。
- 何時施用藥劑，包括時間及次數〔包括每季最多的施用次數〕，或何時不可施用，例如：作物開花期間。

- c) 在何處施用本藥劑---哪一種作物，防治對象、範圍。
- d) 列明任何限制，例如易受影響的作物或品種，天氣情況，收割期。就用於糧食作物的除害劑而言，必須列出最後一次施用該除害劑與糧食作物收成之間的最少相隔時間。
- e) 再次進入的語句。
- f) 必需的施用設備。
- g) 和其他產品的相容性〔如適用〕。
- h) 對植物藥害的相關警告告示。
- i) 如何避免對益蟲，例如蜜蜂、害虫天敵及野生生物等的傷害。

4. 安全防範措施

必須利用警告性的語句提醒操作者施藥時採取適當安全措施，以保障人畜不會受到不必要之危害。除了列明指示及警告性的語句外，也應加上適當圖示。另外，第二部分除害劑的標籤上必須列明所需穿戴的保護性衣物及器具。

警告性語句的一些範例如下：

- 對人畜有害。 Hazards to humans and animals.
- 必須閱讀及依照標籤指示。 Always read and follow label instructions.
- 不遵守標籤指示可導致嚴重受傷甚至死亡。 Failure to follow the instructions on this label may result in serious injury or may be fatal.
- 如誤服、吸入或透過皮膚滲入會有害。 Harmful if swallowed , inhaled or absorbed through skin.
- 會刺激眼睛、皮膚、呼吸系統.....。 May cause eye, skin, respiratory... irritation.
- 使用時須時刻穿著保護性衣物及器具〔如工作服、面罩連呼吸器等.....〕。 Wear protective clothing and equipment (e.g. overalls, respirator etc.....) at all times when handling pesticides.
- 只可在空氣流通的地方處理除害劑濃液。 Handle concentrate in ventilated area.
- 使用此產品時必須依照產品上註明的使用方法小心使用。 The Directions for Use of this product must be followed carefully.
- 此除害劑只可作標籤上特定之用途。 This pesticide product should only be used for purposes as specified on the label.
- 調配或使用時不可飲食及吸煙。 When preparing and using the pesticide do not eat, drink or smoke.
- 避免沾及口部、皮膚、眼睛和衣服。 Avoid contact with mouth, skin and eyes and clothing.
- 避免讓藥霧／粉飄散。 Avoid drifting of spray mist/dust.
- 避免吸入藥霧。 Do not inhale the spray mist.
- 避免在藥霧飄散的環境下工作。 Avoid working in spray mist.
- 切勿施藥於其他人士可能接觸到的地方。 Do not apply in areas where people may come into contact with the pesticide.
- 切勿將除害劑噴洒至食物、食具表面、飼料或水源。 Do not allow spray to contact food or food contacting surfaces, feedstuffs, or water supplies.
- 切勿在室內使用本產品。 Do not apply the products indoor.
- 不可噴灑於寵物身上。 Do not treat pets with this product.
- 施藥前後，應在周圍的當眼處加上警告告示〔如毒藥、不准進入、已施放除害劑、除害劑名稱、施藥日期及時間等〕。 Before and after application, warning notices (e.g. POISON, NO-ENTRY, NAME OF PESTICIDE, DATE AND TIME OF APPLICATION etc) should be posted at conspicuous locations.
- 施藥時，勿讓無穿著保護性衣物人士進入施藥範圍。 During application, make sure personnel without protective clothing inaccessible to the area.
- 施藥時，避免藥霧飄散於沒有穿著保護性衣物的人士身上。 During application, avoid drifting of spray to unprotected personnel.

- 沒有穿著保護性衣物者，不可進入施藥範圍。 Unprotected persons should be kept out of treated areas.
- 再進入該範圍前，須開啓門窗最少....小時，讓空氣完全流通。 Open doors and windows and ventilate the area thoroughly for at least.... hours before entering.
- 藥餌須投放在孩童及寵物不能接近的地方。 Baits should be placed in locations not accessible to children and pets.
- 在室內施藥前，所有人及寵物必須離開。 Humans and animals must be vacated before indoor treatments.
- 使用後須徹底清洗雙手和外露的皮膚，而受沾污的保護性衣物須加以清洗才可再用。 After use, wash hands and exposed skin thoroughly and wash contaminated protective clothing before reuse.

5. 解毒劑和急救指示

標籤上必須顯示解毒劑的名稱，以及由除害劑產品所引致中毒和受傷之急救方法。同時，也應在標籤上提醒使用者，如求醫診治時，必須攜同標籤。

一些實際急救處理方法的例句如下：

- | | |
|---------------|---------------------|
| • 如誤服：..... | If swallowed: |
| • 如皮膚沾上：..... | If on skin: |
| • 如眼睛沾上：..... | If in eyes: |
| • 如吸入：..... | If inhaled: |

6. 環境的危害

標籤上必須列明對環境危害及提醒使用者避免污染環境的警告字句。

一些避免對環境危害的例句如下：

- 不可直接排放任何藥物於排水系統。 Do not discharge spray or unused material directly into the sewer system.
- 此物品對於魚類、蜜蜂及野生生物有高度毒性。 This product is highly toxic to fish, bees, wildlife etc.
- 不可讓藥霧飄至非目標植物。 Do not allow drift to contact non-target plants.
- 不可直接噴向水源及濕地。 Do not apply directly to water and wetland.
- 棄置廢料或清洗容器時，不可污染水源。 Do not contaminate water by cleaning of equipment or disposal of wastes.

7. 物理性及化學性危害

除害劑的易燃性、易爆炸性、腐蝕性、具反應性、氧化還原性質或破壞絕緣效果的性能，以及其他具危害性的物理化學性質，均必須在標籤上加上適當的警告字句及注意事項。

如該藥物有易燃特性，則必須在標籤上列明“易燃”或“高度易燃”。〔注意：危險品條例亦適用於除害劑〕。

一些安全措施的例句如下：

- 不可在接近明火或高溫的地方使用或貯存。 Do not use or store near heat or open flame.
- 本產品貯存於壓縮氣罐內。不可刺穿。 Contents under pressure. Do not puncture.
- 本產品暴露於溫度高過攝氏_____度會引致容器爆裂。 Exposure to temperature above degrees Celsius may cause bursting.

8. 存放及棄置

存放警告句子“小心鎖藏”或同義句必須列於所有第二部分的除害劑標籤上。

一些存放及棄置除害劑的例句如下：

- 小心鎖藏，遠離食物、飲料及飼料。 Store away from food, drink and feedstuffs, under lock and key.
- 必須存於附有標籤及緊閉的原裝容器內。 Always keep pesticide in the labeled original container and tightly closed.
- 小心鎖藏，並置於陰涼乾燥處。 Store in a cool, dry place under lock and key.
- (除草劑)必須與其他農用化學品分開存放。 Store away from other farm chemicals (for Herbicide).
- 除害劑用完後，將容器沖洗三次，然後將其加入噴灑器內再作使用。而沖洗後的容器應加以毀爛，再作一般廢物處置。 Triple rinse empty container, and add the rinsing to the spray mixture for reuse, then break and dispose the container as standard municipal waste.
- 不可將容器作其他用途。 Do not re-use the container for any other purpose.
- 如欲棄置未用或有害的產品，請聯絡本港環境保護署。 For disposal of unused or unwanted product, contact local Environmental Protection Department.

9. 其他資料

a) 商號名稱及地址

供應商或零售商之地址及姓名必須列明於除害劑標籤上。如果產品是在香港自行包裝，包裝商則視為供應商；否則，進口商便是供應商。

b) 有效期限

標籤上應註明該除害劑產品的有效使用期限。

10. 參考

此指引只供參考之用。持牌人/供應商必須遵守除害劑條例第 133 章及其規例內一切列明之要求。當製備除害劑標籤時，供應商亦可以參考由聯合國糧農組織 FAO 出版的“International Code of Conduct on the Distribution and Use of Pesticide”與“Guidelines on Good Labelling Practice for Pesticides”兩份刊物。以上兩份刊物，可以

(a) 直接向 FAO 索取，FAO 地址為：

Distribution and Sales,
FAO, Viale delle Terme di Caracalla,
00100, Rome, Italy.

(b) 或在以下國際電腦網絡的網址上參閱：

<http://www.fao.org/Waicent/FaoInfo/Agricult/AGP/AGPP/Pesticid/Code/Guide.htm>

11. 備註

如需英文版本可向本署索取或在以下網頁下載

English version can be download in the following web-site and is available on request

www.afcd.gov.hk

除害劑條例第133章-規例第12條

- 12 (1) 在第(2)、(3)、(4)及(5)款的規限下，持牌人不得以零售方式或以準備好作零售售賣或供應的方式售賣、要約售賣、為售賣而展示或供應任何註冊除害劑，除非在容器或裝載有關容器的每一箱、盒或其他不論任何性質的包裝的顯眼處，附有以中文及英文清楚而明確地列明以下詳情的標籤，且所列明的詳情不得模糊或經塗改：
- (a) "毒藥" 及 "Poison" 字樣；
 - (aa) "遠離孩童" 及 "Keep out of reach of children" 字句；
 - (ab) 該除害劑的註冊編號；
 - (b) 該除害劑為人所知的商用名稱、化學名稱及通用名稱(如有的話)；
 - (c) 該除害劑所有活性成分的組成百分比；
 - (d) 內含物的淨重量或淨體積；
 - (e) 如該除害劑具內吸作用，須註明 "SYSTEMIC" 字樣；
 - (f) 關於如何使用該除害劑的指示，以及施用該除害劑時須採取的防範措施；
 - (g) 就用於糧食作物的除害劑而言，最後一次施用該除害劑與糧食作物收成之間的建議相隔時間；
 - (h) 遇有中毒事件發生時，須使用的解毒劑及須採取的急救行動；
 - (i) 該除害劑的售賣人的姓名或名稱，以及售賣或供應該除害劑的地址；及
 - (j) 署長所要求的其他詳情。
- (1A) 如除害劑將會由持牌人出口運予香港以外地方的買家，第(1)款不適用於該除害劑。
- (2) 署長可以書面豁免任何註冊除害劑，使其無須遵守第(1)(a)款的規定。
- (3) 第(1)款並不規定在透明包裝上，或純為運輸或交付用途的包裝物、籃子、包裝箱、板條箱或其他包裝加上標籤。
- (4) 如註冊除劑是由貨倉或倉庫供應的，而容器上的標籤已列明供應商主要營業地點或(如屬公司)公司註冊辦事處的地址，則須當作符合第(1)(i)款的規定。
- (5) 如標籤上列明2名或多於2名的人的姓名或名稱，或2個或多於2個地址，則標籤上須有文字清楚顯示誰人是售賣人，以及哪個地址是售賣或供應註冊除害劑的地址。

EXAMPLE OF A (PART I) PESTICIDE LABEL 第一部份除害劑標籤樣本

牌子：XXX	Brand Name :XXX
除害劑類型：XXX	Type of Pesticide :XXX
必須閱讀及依照標籤指示。	Always read and follow label instructions.
對人畜有害	HAZARDS TO HUMANS AND ANIMALS
主治害蟲：_____	Target Pest :_____
_____	_____
使用方法：_____	Directions for use :_____
_____	_____
注意事項：_____	Precautions :_____
_____	_____
存放：_____	Storage :_____
_____	_____
棄置容器：_____	Disposal of container :_____
_____	_____
急救方法：_____	First Aid :_____
_____	_____
解毒劑：_____	Antidote :_____
_____	_____
有效成份：_____	Active Ingredients :_____
_____	_____
劑型：_____	Formulation :_____
註冊編號：_____	Registration No. :_____
淨容量/重量：_____	Net Content/Weight :_____
有效日期：_____	Expiry Date :_____
供應商名稱及地址：_____	Supplier's Name and address :_____
_____	_____
毒藥	POISON
遠離孩童	KEEP OUT OF REACH OF CHILDREN

EXAMPLE OF A (PART II) PESTICIDE LABEL 第二部份除害劑標籤樣本

(BRAND NAME) (TYPE OF PESTICIDE) 對人畜有害 必須閱讀及依照標籤指示 不依照標籤指引可導致嚴重受傷害甚至死亡 Hazards to Humans and Animals Always read and follow label instructions. Failure to follow the instructions on this label may result in serious injury or may be fatal. 有效成份 Active Ingredient: _____ : _____ %w/v or w/w 註冊編號 Registration No.: _____ 毒藥 POISON 遠離孩童 如誤服、吸入或滲入皮膚都會有危險 KEEP OUT OF REACH OF CHILDREN Harmful if swallowed, inhaled or absorbed through skin 急救方法 FIRST AID 如誤服: 如皮膚沾上: 如眼睛沾上: 如吸入: If swallowed: If on skin: If in eyes: If inhaled: 解毒劑 ANTIDOTE:..... 送院診治時，必須帶同此標籤。Always bring along the label when seeking medical attention.		使用方法 DIRECTIONS FOR USE: 只供.....用途，不可作其他用途 For.....use only, not for any other purposes !								
		<table border="1" style="width: 100%;"> <tr> <td style="width: 33%;">防治對象 PEST</td> <td style="width: 33%;">稀釋比率 DILUTION RATE</td> <td style="width: 33%;">使用要點 APPLICATION RATE</td> </tr> <tr> <td style="height: 50px;"></td> <td></td> <td></td> </tr> </table>			防治對象 PEST	稀釋比率 DILUTION RATE	使用要點 APPLICATION RATE			
		防治對象 PEST	稀釋比率 DILUTION RATE	使用要點 APPLICATION RATE						
注意事項 PRECAUTIONS The Directions for Use and Precautions of this product must be followed carefully. 應小心遵守產品注意事項及使用方法。										
		中文(Chinese)		英文(English)						
相容性 COMPATIBILITY		物理及化學性危害 PHYSICAL AND CHEMICAL HAZARDS								
環境污染 ENVIRONMENTAL HAZARDS		存放 STORAGE 小心鎖藏，遠離食物、飲料、飼料、孩童及動物。須存放在緊閉的有標籤原裝容器內，並置於陰涼乾燥處。必須與除草劑分開存放..... Always keep the pesticide in the original-labeled container and store in a cool, dry and safe place under lock and key and away from food, drink, feedstuffs, children and animals. Store away from herbicides		棄置容器 DISPOSAL OF CONTAINER 除害劑用完後，將容器沖洗三次後毀爛，再作一般廢物處置。不可將容器作其他用途。清洗容器後之殘餘除害劑不可污染水源，應將其加入噴灑器內再作使用..... Triple rinse empty container, then break and dispose of as standard municipal waste. Do not re-use this container for any other purpose. Add the rinsing to the spray mixture for reuse, do not pour into the waterways.....						
淨容量 NET CONTENT: ____毫升(c.c.) 供應商 SUPPLIER: 電話 TEL : 包裝日期 Repackaging Date: 有效日期 Expiry Date:		Appropriate Pictograms 適當圖示								

Formulation Codeing 劑型代號

CODE	劑型	FORMULATION TYPE
AB	穀粒藥餌	Grain bait
AE	氣霧劑	Aerosol dispenser
AL	無需稀釋液劑	Liquids to be applied undiluted
AS	水溶性液劑	Aqueous solution
BB	塊狀藥餌	Block bait
CK	粉筆	Chalk
CS	微膠囊懸浮劑	Capsule suspension
DP	塵粉劑	Dustable powder
DS	拌種用粉劑	Powder for dry seed treatment
EC	乳化劑	Emulsifiable concentrate
FP	煙霧筒	Smoke cartridge
FS	種子處理用濃縮懸浮劑	Flowable concentrate for seed treatment
FT	煙霧片	Smoke tablet
FU	煙霧劑	Smoke generator
FW	煙霧丸	Smoke pellet
GB	粒狀藥餌	Granular bait
GE	凝膠狀藥餌	Gel bait
GR	粒劑	Granule
IF	浸透薄片	Impregnated film
IP	浸透紙	Impregnated paper
L	液劑	Liquid form
ME	微浮劑	Micro-emulsion
OF	可流動濃縮油劑	Oil miscible flowable concentrate
OL	油劑	Oil miscible liquid
P	粉劑	Powder
PA	漿劑	Paste
PE	丸狀藥餌	Pellet bait
PR	植物桿型劑	Plant rodlet
QB	液體藥餌	Liquid bait
RB	藥餌(即用)	Bait (ready for use)
SB	碎屑藥餌	Scrap bait
SC	濃懸浮劑	Suspension concentrate (= Flowable concentrate)
SE	懸乳劑	Suspo-emulsion
SG	水溶性粒劑	Water soluble granules
SL	濃縮可溶劑	Soluble concentrate
SP	水溶性粉劑	Water soluble powder
TB	片劑	Tablet
TK	濃縮原藥	Technical concentrate
UL	超低容量液劑	Ultra low volume liquid
VP	氣體散發劑	Vapour releasing product
WG	水份散性粒劑	Water dispersible granules
WP	可濕性粉劑	Wettable powder

「除害劑標籤指引」—補充說明

"A Guide to Labelling of Pesticides" – Supplement/1.4.98.

用於噴霧式除害劑上的警告字句及注意事項例句：

Examples of warning and precautionary statements for aerosol spray:

a)在當眼處規定的警告字句 Mandatory warning wording in conspicuous position.:

- I 毒藥 POISON
- I 遠離孩童 KEEP OUT OF REACH OF CHILDREN

b) 物理性及化學性危害 Physical and chemical hazards

- I 易燃 Flammable
- I 本產品貯存於壓縮氣罐內。不可刺穿或將容器燃燒，暴露於溫度高過攝氏 XX 度的地方會有爆炸危險。Content under pressure. Do not puncture or incinerate the container. Exposure to temperatures above XX°C may cause bursting.
- I 不可在靠近明火、火花、火種、電掣或高溫的地方使用。Do not use near open flame, sparks, pilot lights, any electrical outlets or heated areas.
- I 不可用於電器用品上，以免有觸電危險。Do not apply this product in or on electrical equipment due to the possibility of shock hazard.
- I 噴藥前，應關閉所有電器裝置。Turn off all electrical appliances before spraying.
- I 只可在空氣流通的地方使用此產品。Only use this product in well-ventilated areas.
- I 在通風不良的情況下，尤其在會有火花產生的地方或電器附近，不宜使用此產品。Do not apply this product in poorly ventilated areas where sparks may be generated from electrical appliances or any other sources.
- I 在通風不良的情況下，每 X 平方米的房間，不可噴超過 X 秒，以防有爆炸之可能性。Do not apply this product more than XX seconds/room size of X m² in poorly ventilated areas due to the possibility of explosion hazard.
- I 在密閉而有電器開動的場所，請勿使用此產品。Do not apply this product in confined areas where electrical appliances are in operation.
- I 當室溫超過攝氏 XX 度，請勿在室內使用此產品。Do not apply this product indoor when room temperatures above XX°C.

c) 一般的警告字句 General precautions:

- I 對人畜有害 Hazards to humans and animals
- I 如誤服、吸入或透過皮膚滲入會有害。 Harmful if swallowed, inhaled or absorbed through skin.
- I 必須閱讀及依照標籤指示。 Always read and follow label instructions.
- I 必須依照標籤上特定之用途小心使用。 This pesticides product should only be used for purposes as specified on the label.
- I 請依照建議的使用量，避免過量使用。 Follow the recommended application rate and avoid excessive wetting of applied areas.
- I 使用前搖勻。 Shake well before use.
- I 施藥前請移走雀鳥、寵物及覆蓋家庭用具、玩具和水族箱。 Remove pets, birds and cover aquariums, toys and utensils before spraying.
- I 使用時，不可飲食及吸煙。 Do not eat, drink and smoke while spraying.
- I 不可噴灑於人畜、植物、家庭用具和處理食物的地方。 Do not spray on human beings, plants, animals, utensils and exposed food preparation area.
- I 小心噴霧，切勿吸入。 Beware of spray drift, do not inhale the aerosol.
- I 使用後，請立刻離開施藥的地方。 Leave the treated area at once after sprayed .
- I 施藥的房間經良好通風 XX 小時後才可進入。 Fully ventilate the room for about XX hours before entering.
- I 使用後須徹底清洗雙手。 Wash hands thoroughly after use.
- I 不可貯存在接近明火、發熱裝置、電暖爐、陽光照射或高熱的地方(或暴露於溫度高過攝氏 XX 度的地方)。 Do not place or store the container near fire, heater, electrical warmer or heated areas (or at place where temperature is above XX° C).
- I 貯存在遠離食物的地方。 Store away from food.
- I 不可將容器作其他用途。 Do not re-use the empty container for any other purposes.

附件十四

大陸地區《有害生物防制服務機構資 質等級評定》實施辦法

中国卫生有害生物防制协会
关于修订《有害生物防制服务机构资质等级评定》
实施办法的通知

各省市有害生物防制协会，各会员单位、有害生物防制服务机构、有关单位：

为了更好地执行国家标准《有害生物防制服务机构资质等级评定》，适应资质评定工作的实际需要，进一步加强对资质评定工作的管理，在广泛征求意见的基础上，中国卫生有害生物防制协会对现行的《有害生物防制服务机构资质等级评定》实施办法进行了修订。现将修订后的《有害生物防制服务机构资质等级评定》实施办法印发给你们，自印发之日起施行。

在执行中遇到的问题及意见、建议，请及时反馈。

附件：《有害生物防制服务机构资质等级评定》实施办法

二〇一一年九月七日

《有害生物防制服务机构资质等级评定》实施办法

第一章 总则

第一条 为了贯彻实施国家标准《有害生物防制服务机构资质等级评定》(以下简称“资质评定”),引导有害生物防制服务机构持续提高服务质量,规范市场竞争秩序,营造全行业信用氛围,推动行业的整体发展,特制定本办法。

第二条 有害生物防制服务机构是指在室内外环境对鼠、蚊、蝇、蟑螂、蚂蚁、跳蚤、虱、臭虫、蜚、螨及其他危害人体健康、影响环境和人类生活与工作、造成经济损失的有害生物进行预防和控制,并向被服务对象收取服务费用的单位。

第三条 资质评定遵循自愿申报、综合评定的原则,坚持评定的科学性、公正性、公平性和权威性。

第四条 本办法所采用的为国家《资质评定》标准。

第五条 中国卫生有害生物防制协会(以下简称“全国协会”)按照国务院主管部门赋予协会的职能,组织领导、统筹协调本办法的实施;中国卫生有害生物防制专家委员会(以下简称“专家委员会”),负责本办法的具体实施。

第二章 资质评定工作程序

第六条 资质评定工作程序

申请、内审员培训、上报资料、资料评审、现场评审、综合评审、颁发证书。

第三章 内审员设置与培训

第七条 内审员设置

申报的有害生物防制服务机构应配备一名内审员,负责资质评定申报的相关工作;有分支机构的,每个分支机构也应配备一名内审员。

第八条 内审员培训

初次申报或申请复审时,内审员均须参加由全国协会举办的相关业务培训。内审员培训原则上于每年6月举办一次。

第四章 申请与上报资料

第九条 申请

参加资质评定的有害生物防制服务机构,应向全国协会提出申请。申请书中应有地方有害生物防制协会(或鼠害与卫生虫害防制协会,以下简称“地方协会”)签署的推荐意见;没有地方协会的可直接上报。申请书中应包含以下附件:

- 1、营业执照副本复印件;
- 2、税务登记证副本复印件;

3、有害生物防制服务机构法人身份证复印件。

第十条 上报资料

按照全国协会制定的“有害生物防制服务机构资质等级评定评分细则”的要求逐项整理资料并上报，提交的资料必须真实有效。

第五章 评审

第十一条 资料评审

由专家委员会组织评审员对上报资料进行评审。自资料上报1个月内将资料评审结果通知申报的有害生物防制服务机构，资料评审合格的有害生物防制服务机构进入现场评审阶段。

第十二条 现场评审

由专家委员会组织评审员对申请的有害生物防制服务机构现场评审。

第十三条 综合评审

由专家委员会对申报的有害生物防制服务机构综合评审，并将资质评定结果报全国协会最终审定。

第六章 发布、发证和换证

第十四条 发布

全国协会通过一定形式向社会发布审定的有害生物防制服务机构名单。

第十五条 发证

1、全国协会向审定的有害生物防制服务机构颁发《有害生物防制服务资质证书》(以下简称《资质证》)，《资质证》分为正本和副本。

2、《资质证》使用“中国卫生有害生物防制协会”印章。

3、全国协会提供网上《资质证》真伪查询。

第十六条 换证

《资质证》有效期两年。有害生物防制服务机构应在《资质证》到期前两个月向全国协会提出换证复审申请，并提供下列资料：

1、复审申请报告一份；

2、同上第十条所规定的资料。

全国协会在接到复审申请和上报资料后，应在《资质证》有效期到期前1个月授权专家委员会组织评审员完成复审，根据复审结果报全国协会审定，并为其换发相应级别的资质证书。

第十七条 晋级

获得《资质证》两年后的有害生物防制服务机构，具备晋级条件的可申请晋级，并应向全国协会提供下列资料：

1、申请报告一份；

2、同上第十条所规定的资料。

一般按顺序晋级，即C级晋升B级，B级晋升A级。

第十八条 变更

若有害生物防制服务机构名称、办公地址、法人或负责人、注册资金等情况有变更，应在主要信息变更后一个月内向全国协会上报《有害生物防制服务机构资质证书变更登记表》，并提交下列资料：

- 1、《工商营业执照》复印件；
- 2、其他相关资料（如主管部门批文、房屋产权证书或租赁合同、《注册资金验资报告》等）。

变更手续完成后，将原《资质证》交回，全国协会为其换发新的《资质证》，并在网站公布变更信息。

如有害生物防制服务机构在主要信息变更后 1 个月内不办理变更手续，超过时限后需重新申报办理。

第十九条 注销

取得《资质证》的有害生物防制服务机构因故关闭的，应在关闭后一个月内向全国协会交回《资质证》，并登记注销。

有害生物防制服务机构私自转让或违法、违规、过期使用《资质证》的，全国协会有权注销其《资质证》。

注销《资质证》的相关信息将通过全国协会网站等及时向社会公布。

第七章 年度经营情况上报制度

第二十条 获得《资质证》的有害生物防制服务机构应于每年 1 月底前向全国协会上报上年度工作。主要上报资料为：

- 1、业绩报表（服务营业收入情况）；
- 2、服务客户名单和联系方式报表；
- 3、人员变动报表（管理人员、技术人员、主要操作人员）；
- 4、人员参加内部和外部培训报表（参加培训的时间、地点、内容、证书等情况）；
- 5、重大责任事故情况；
- 6、年度工作总结（包括资产和场所、防制人员、组织管理、防制能力、服务质量等）。

第八章 资质证书的使用与监督

第二十一条 由全国协会颁发的《资质证》可在全国范围内使用。

第二十二条 在《资质证》有效期内，有害生物防制服务机构可在广告、宣传中按有关规定使用，也可在招标等正当商业活动中使用。

第二十三条 内审员负责本有害生物防制服务机构《资质证》的内部使用监督。

第二十四条 全国协会有权按照规定对取得《资质证》的有害生物防制服务机构进行定期和不定期的监督、检查，必要时进行现场检查和索取有关资料，有关有害生物防制服务机构和个人不得拒绝和隐

瞒。

监督、检查、现场检查主要基于以下情况：

1、有弄虚作假、骗取《资质证》嫌疑的；

2、出现较大责任事故的；

3、定期报表有作假嫌疑的；

4、评审部门认为其他应该监督、检查、现场核查的事项，如业绩明显下滑、主要人员出现大的变动等。

经监督、检查，对问题较轻的责令其限期整改，限期整改不合格的降级或取消其《资质证》。对出现重大责任事故的企业，经全国协会查实撤销其资质等级资格，注销其《资质证》，并限其在 2 年内不得重新申请。

第九章 收费

第二十五条 按国家有关规定收取相关费用。

第十章 附则

第二十六条 本办法自发布之日起实施。

第二十七条 全国协会保留对本实施办法的最终解释权。

附件十五

《中國衛生有害生物防制協會 PCO 綜合實力排行評定實施辦法》

中國衛生有害生物防制協會 PCO 綜合實力排行評定實施辦法

二〇一一年一月十日修訂

第一章 總則

第一條 爲了引導 PCO 持續提高服務質量，不斷擴大經營規模、增加經濟和社會效益，促進有害生物防制行業健康、有續發展，同時爲消費者提供確實可靠的有害生物防制行業服務信息，保證 PCO 綜合實力排榜的科學性、公正性和權威性，特制定本辦法。

第二條 PCO 是指在室內外環境對鼠、蚊、蠅、蟑螂、螞蟥、跳蚤、蝨子、蟬、蟎及其他危害人體健康、影響環境和人類生活與工作、造成經濟損失的有害生物進行預防和控制，並向被服務對象收取服務費用的單位。PCO 服務收入是指上述蟲害控制的服務收入。(不含殺蟲藥械銷售收入)

第三條 PCO 綜合實力排行是一項公益事業，遵循自願申報、綜合實力評定的原則。

第四條 中國衛生有害生物防制協會按照國務院主管部門所賦予協會的職能，負責本辦法的解釋。

第二章 機構與職責

第五條 中國衛生有害生物防制協會負責 PCO 綜合實力排行評定的組織管理與排行榜的發榜等工作。

第六條 凡在我國已經進行工商註冊的 PCO，均可申請參加綜合實力排行的評定。

第三章 評定程序

第八條 申報

各 PCO 按照綜合實力排行評定申請表(可在網站直接下載)的填寫要求，實事求是地填寫；並與其他申報材料一起，於規定日期內上報中國衛生有害生物防制協會。申報材料包括下列內容(其中複印件均需加蓋企業公章)：

- 1.營業執照副本複印件；
- 2.PCO 資質認證證書複印件；
- 3.組織機構代碼副本複印件；
- 4.稅務登記證副本複印件；
- 5.企業法人身份證複印件；
- 6.企業年度資產負債表；
- 7.人員基本情況統計表；
- 8.年度使用的藥物及器械清單；
- 9.年度客戶基本信息匯總表；
- 10.客戶滿意率；

第九條 初審

由地方協會進行初審，確認申請企業申報材料的真實性，並填寫初審意見。沒有

地方協會的申請企業可直接上報中國衛生有害生物防制協會辦公室，由其初審並簽署初審意見。

第十條 評審

由中國衛生有害生物防制協會辦公室組織相關人員對通過初審的資料進行審評，根據評定標準確定參加評審企業的综合實力。

第十一條 發榜

在評定結束後的一個月內，公佈年度 PCO 综合實力排行榜，並向前十名 PCO 頒發年度 PCO 综合實力排行證書。

第十二條 宣傳

- 一、中國衛生有害生物防制協會發布通報；
- 二、在相關媒體上刊發消息；
- 三、在《中國有害生物防制網》、《中國有害生物防制通訊》上發布信息；
- 四、在中國衛生有害生物防制協會年會上宣傳；
- 五、協調相關協會網站連接並宣傳；
- 六、其他形式的宣傳。

第四章 評定標準

第十三條 評定標準

- 一、依法經營，遵守國家有關法律、法規和規章；
- 二、企業財務制度健全，財力雄厚，發展潛力大，獲利能力強，經濟效益明顯，同時企業具有良好的社會責任感；
- 三、企業組織管理結構和技術人才結構何哩，具有完善的質量管理體系，並能有效保證管理體系的有效運作；基礎質量和終末質量管理與監督到位，且具有較強的自身技術發展能力；
- 四、企業規模大，服務範圍廣，具有公共環境服務的競標和中標的能力；
- 五、服務規範，嚴格執行有害生物防制技術服務操作規範和標準，服務質量監測與監督管理健全，技術管理檔案完備；
- 六、服務質量得到客戶認可，社會信譽度高；

第五章 附則

第十五條 本辦法自發布之日起實施

第十六條 中國衛生有害生物防制協會保留對本辦法的最終解釋權。

附件十六

安全使用環境衛生用藥繪圖比賽 活動辦法活動簡章

安全使用環境衛生用藥 繪圖比賽活動辦法

一、活動宗旨

為使民眾充分了解環境衛生用藥安全的使用方式，將結合全國繪圖比賽，預計於過程中讓民眾了解環境衛生用藥如何達到用藥之安全，活動將鼓勵民眾利用圖畫方式結合環境衛生用藥安全的使用方式進行個人創作，活動過程並舉辦網路票選以及獎勵方案，藉由競賽獎勵方式以達到最佳環境衛生用藥安全使用之宣導。

二、主辦機關

行政院環境保護署

三、協辦單位

環資國際有限公司

四、活動時程規劃

徵件時間—自 100 年 8 月 15 日起至 100 年 9 月 20 日，以郵戳為憑。

網路人氣票選時間—自 100 年 10 月 5 日至 10 月 17 日中午 12 時截止。

得獎名單公布時間—100 年 10 月 18 日下午 17 時，於活動網站公布。

五、活動設計規劃

1. 參賽資格

設籍我國者皆可參加，僅限個人投稿送件。

2. 報名方式

請至活動網站下載報名表（附件 1）、作品標示表（附件 2，請浮貼或標示於作品背面右下角）、授權同意書（附件 3）。確實填寫完畢後，連同作品寄至 10067 臺北市中華路 1 段 90 號 7 樓環資國際有限公司「安全使用環境衛生用藥繪圖比賽」收，

即可完成報名。

所有作品主辦機關將上傳至網頁進行網路票選，投稿者可於投稿時一併檢附電子檔光碟，如投稿者無檢附圖稿光碟，主辦機關採掃描上傳方式進行作業。

如有疑問，請電洽活動聯絡人(02)66308000 分機 340 簡小姐。

3. 作品表現方式

(1)不限個人參加件數，但每人僅能獲獎 1 件（以最高獎項為準，惟「網路人氣票選獎」除外）。

(2)內容須符合「安全使用環境衛生用藥繪圖比賽」下列說明意旨：

A.什麼是環境衛生用藥？

B.市面上有哪些販售的環境衛生用藥種類(噴霧劑、煙霧劑（或燻煙劑）、蟑螂餌劑、殺鼠劑、殺菌劑）。

C.如何配合居家環境清掃達到減少環境衛生用藥的使用。

D.環境衛生用藥應該如何安全使用

儘量利用天然或較低毒性產品替代，產品使用前應詳細閱讀標示並依照說明使用，不可自行混合不同的環境衛生用藥噴灑，使用時儘量避免沾染身體並防止藥劑潑灑污染食品衣物，在使用後應保持空氣流通及身體清潔。

4. 作品規格

(1)主題：「安全使用環境衛生用藥繪圖比賽」。

(2)作品規格：

A.電腦繪圖投稿者：作品原始製作檔案之格式為解析度 300 dpi 以上，每格完稿尺寸為橫式 4 開大小（長 39.3 cm X 寬 54.5 cm）以十字均分，黑白或彩色均可，列印順序由左至右、由上至下，並附上轉檔格式 JPG 或 TIFF 檔，檔案限定在 100 MB 以內，燒錄成光碟，另須附上印出 A3 大小紙本作品。

B.手繪圖投稿者：原始手繪圖稿作品以 A3 大小畫紙繪製。請自行確認原始手稿圖之清晰，以免影響評選結果。

(3)所有作品請自行保留備份檔案，作品寄出後概不退回。

5. 評選辦法

(1)初審：確認作品內容是否符合「安全使用環境衛生用藥繪圖比賽」4 項說明意旨其中 1 項，以及作品規格、應檢附報名資料是否符合參賽規定。通過初審者方可參加複審及網路票選。

(2)複審：

A.邀請大眾傳播、美術、視覺傳達及環境衛生用藥專業領域之學界老師各 1 名，以及業界知名漫畫家 1 名，共計 5 名擔任評審委員進行評分，評選出 8 位得獎作品。

B.評選標準以創意 45 %（含訴求手法新穎度、原創性、精彩度、趣味度）、主體內容 45 %（主題理念契合性）、技巧表現 10 %（繪圖技術）

C.評分方式採 100 分為滿分，並採名次點數計算(第一名 1 點、第二名 2 點、第

三名 3 點、第四名 4 點、第五名 5 點，依此類推)，名次之決定以總名次點數為準，總得點數最低者為第 1 名，如遇點數相同者，再以分數高者為第 1 名。

- (3)網路人氣票選：通過初審之作品皆會公布於活動網址，並進行網路票選，選出人氣獎 10 位得獎作品。參加網路投票者，有機會可獲得 10 月 18 日繪圖比賽頒獎典禮進行現場抽獎，該名幸運者可獲得獎金 3,000 元。

6. 活動獎項

【第一名】1 位：獎金 30,000 元及獎狀 1 幀。

【第二名】1 位：獎金 20,000 元及獎狀 1 幀。

【第三名】1 位：獎金 10,000 元及獎狀 1 幀。

【佳作獎】5 位：獎金 5,000 元及獎狀 1 幀。

【網路人氣票選獎】10 位：每位人氣獎 1 份。

【網路投票抽獎】1 位：獎金 3,000 元。

7. 活動注意事項

- (1)所有參賽作品，無論得獎與否，皆不予退還。
- (2)送件時需繳交報名表（附件 1）、作品標示表（附件 2，請浮貼或標示於作品背面右下角）、授權同意書（附件 3）。各項資料須確實填寫完成，始完成報名程序。
- (3)主辦機關對於所有參賽作品均有授予各種傳播媒體刊載之權利，並擁有所有報名參賽作品編製及重製成光碟、書刊或其他形式宣傳物之永久使用權。
- (4)所有投稿作品之著作人格權屬創作者，惟創作者（含參賽者使用他人圖案之第三人）同意對主辦機關不行使著作人格權。
- (5)參賽者均須簽署「授權同意書」，同意其作品獲選為得獎作品時，得獎作品之著作財產權歸屬主辦機關所有，主辦機關享有一切刪改、公開展示、重製、改作、編輯、印製、出租、散布、發行、以及推廣宣導等用途之權利，並有將圖稿安排於媒體發表、商品販售、成冊出版、自行再版及再授權他人等權利，均不另計版稅及稿費，得獎者亦不另行索取費用。
- (6)若參賽者有使用他人所有之圖案等並涉及相關著作財產權時，須自行取得著作財產權授權同意等證明文件。
- (7)參賽作品必須為參賽者自行創作，禁止繳交使用侵權之圖檔，禁止抄襲或複製他人作品，禁止涉及色情、暴力、毀謗、人身攻擊、宗教議題、政治議題或不雅圖片等，禁止侵害他人隱私權或妨礙社會正當風俗及公共秩序作品或違反中華民國相關法令規定等情事。作品也請勿於其他類型活動重複投稿。如經評審決議認定，或遭相關權利人檢舉並經主辦機關查證屬實，主辦機關得逕予取消得獎資格，除追回獎項外，並得向參賽者請求相當於獎項金額 2 倍之懲罰性違

約金，另若造成主辦機關損害，參賽者應負損害賠償責任。

- (8)請勿投稿與本活動主題無關之內容。
- (9)若以惡意之電腦程式或其他明顯違反活動公平性之方式，意圖混淆或影響比賽結果者或有違法之行為，一經主辦機關發現或經第三人檢舉並經主辦機關查證屬實，主辦機關得逕予取消參賽資格，若造成主辦機關損害，參賽者應負損害賠償責任；其作品如為得獎作品者，除追回獎項外，並得向參賽者請求相當於獎項金額 2 倍之懲罰性違約金。
- (10)依所得稅法規定，本活動得獎者獲頒獎項，應屬稿費收入，得獎者如為中華民國境內居住之個人，得獎禮券依規定須扣繳 10 %所得稅額，但扣繳稅額不超過新臺幣 2,000 元者，免予扣繳；得獎者如為非中華民國境內居住之個人，得獎禮券依規定須扣繳 20 %所得稅額，但扣繳稅額不超過新臺幣 5,000 元者，得免予扣繳。
- (11)依「各類所得扣繳率標準」規定，獎項所得超過新臺幣 1,000 元者，將開立 (9B) 稿費免扣繳憑單，故得獎者應配合填寫相關資料及繳交收據方可領獎。若不願意配合者，則視為自動棄權，不具得獎資格。
- (12)得獎者若為未成年人，須檢附戶籍謄本並配合提出法定代理人同意書，方可領獎。
- (13)主辦機關僅會以網站公告、電子郵件、電話 3 種方式通知得獎訊息，請活動參與者密切注意網站公告。公告後 2 週內若未領獎，視同放棄。
- (14)比賽時程得視參賽狀況調整，以網頁最新公告為準。
- (15)主辦機關保有隨時修改及終止本活動之權利。
- (16)得獎作品如引發大眾的負面爭議，在不影響作者原創前提下，為顧及社會大眾觀感，對於所有得獎作品內容，主辦機關保有修改、刊登的權利。
- (17)因郵寄遺失、郵資不足、失竊或其他非主辦機關之原因造成參選作品遺失或損壞，主辦機關不承擔任何責任。
- (18)參賽者對於評審之評審結果，完全同意並尊重，絕不提出任何異議或申訴。
- (19)凡參賽者均視為同意並遵循上述各項規定。

附件十七

安全使用環境衛生用藥繪圖比賽 活動辦法報名資料

行政院環境保護署

安全使用環境衛生用藥繪圖比賽

活動報名表

作品編號	(參加者免填，由執行單位編號)		
作品主題名稱			
姓 名		性 別	
身分證號碼		出生年月日	
聯絡電話		手 機	
戶籍地址			
通訊地址			
電子郵件信箱			
創作意旨說明 (300 字以內)			
使用他人圖像 資料說明	(若有使用他人所有之圖案，請說明圖案之名稱、擁有者等來源相關資料，並取得其著作財產權授權同意等證明文件，始完成報名程序)	☐ 須附上他人著作財產權授權同意等證明文件 ☐ 無須附他人著作財產權授權同意等證明文件	
送件資料清單 (請自行核對)	☐ 報名表 ☐ 授權同意書一份 ☐ A3 大小紙本作品 (請務必在作品背面右下角貼上作品標示表) ☐ 作品光碟 (電腦繪圖投稿者必備；手繪圖如無檢附由主辦單位進行圖稿掃描)		

備註：參賽者已詳閱本次活動辦法中各項規定，並同意所有規定內容。

簽名：

附件十八

安全使用環境衛生用藥著作財產權
授權使用同意書

授權同意書

「安全使用環境衛生用藥繪圖比賽」

著作財產權授權使用同意書

本人_____參加主辦單位（行政院環境保護署）所舉辦之「安全使用環境衛生用藥繪圖比賽」，保證參選之作品，作品名稱_____（以下簡稱作品）係出於本人之獨立創作，並未公開發表，絕無侵害他人著作之事宜，若有著作財產權之爭議，本人願負相關法律之責任。

依本次活動辦法，凡經評定得獎之作品，由主辦單位致贈獎項及獎狀，則本人作品之著作財產權歸屬於主辦單位所有，並同意不對主辦單位行使著作人格權。

主辦單位擁有自行運用於公開展示、重製、改作、編輯、印製、出租、散布、發行、商品開發販售及再授權他人等權利，且不另支付得獎人稿費及版稅，本人無異議亦不另行索取費用。

本人作品如有侵害第三人權益、抄襲他人或有妨害他人著作權之情事，經查證屬實，本人願負排除糾紛之責，並擔保第三人就作品對主辦單位不得主張任何權利，主辦單位得逕予取消得獎資格，除追回獎項外，並得向本人請求相當於獎項金額 2 倍之懲罰性違約金，另若造成主辦單位損害，本人應負損害賠償責任。

☐ 本人有使用他人所有之圖案等並涉及相關著作財產權，已自行取得著作財產權授權同意等證明文件（如後附）。

參賽者：_____（簽章）（請務必蓋章）

身分證號碼：

住址：

電話：

●參賽者若未成年，需請法定代理人加填下列欄位●

法定代理人：(簽章)(請務必蓋章)

身分證號碼：

住址：

電話：

中華民國

年

月

日

本活動參賽資格限定以「個人」身分參加，若遭相關權利人檢舉得獎人為「非個人」時，經主辦單位查證屬實，主辦單位得逕予取消得獎資格。

附件十九

2011 環境用藥技術應用研討會 會議簽名單

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
1	國立台灣大學昆蟲學系暨研究所	教授 ⁽¹⁶⁾	徐爾烈	徐爾烈
2	國立台灣大學公共衛生學系	副教授 ^b	王正雄	王正雄
3	國立中興大學昆蟲系	副教授 ⁽¹⁷⁾	唐立正	唐立正
4	國立屏東科技大學植物醫學系	教授 ⁵	張念台	張念台
5	行政院衛生署疾病管制局 副研究員	副研究員 ⁴	夏維泰	夏維泰
6	高雄鳳山區衛生所	所長 ⁽¹⁴⁾	劉碧隆	劉碧隆
7	經濟部工業局	專員 ¹³	蕭亞玲	蕭亞玲
8	大仁科技大學環科系	副教授 ⁽¹⁸⁾	吳懷慧	吳懷慧
9	臺北市立教育大學地球環境暨生物資源學系	助理教授 ⁽¹⁶⁾	黃基森	黃基森
10	嘉南藥理科技大學生物科技	副教授 ⁽¹⁷⁾	羅怡珮	羅怡珮
11	國立高雄大學 運動健康與休閒學系	教授 ⁽¹⁵⁾	白秀華	白秀華
12	中興大學昆蟲系	兼任副教授	李學進	李學進
13				
14				
15				
16				
17				

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
1	台北市環境用藥販賣商業同業公會	理事長	林進國	林進國
2	台灣省病媒防治公會聯合會	第一屆理事長	陳國龍	
3	台灣省病媒防治商業同業公會聯合會	理事長	吳肯源	吳肯源
4	台灣病媒防治公會聯合會	副理事長	羅會龍	羅會龍
5	台灣區環境衛生用藥工業同業公會	理事長	陳吉昌	陳吉昌
6	台灣區環境衛生用藥工業同業公會	總幹事	楊森桐	楊森桐
7	臺灣環境有害生物管理協會	秘書長	簡博美	簡博美
8	台大公衛院流預所	專任助理	林思佑	林思佑
9	台大流行病學與預防醫學研究所	助理教授	蔡坤憲	
10	丸瑪有限公司	技術人員	周友中	周友中
11	七祥專業除蟲有限公司	副總經理	莊旻霖	莊旻霖
12	九吉有限公司	負責人	陳美嶧	陳美嶧
13	力奇病媒防治有限公司	專業技術人員	黃振海	
14	大安除蟲股份有限公司	主任	林如雲	林如雲

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
15	大華消毒股份有限公司	經理	廖文斌	廖文斌
16	中台興化學工業股份有限公司二廠	副總	楊錫欽	楊錫欽
17	中台興化學第一廠	主任	陳長發	陳長發
18	中西化學工業股份有限公司	總經理	李慧音	李慧音
19	中西化學工業股份有限公司	業務專員	胡景歲	胡景歲
20	中西行	業務專員	施家玲	施家玲
21	中西行	業務專員	曾桂美	曾桂美
22	中華除蟲有限公司	經理	李全成	李全成
23	中群環境消毒企業社	負責人	鄭祐宗	鄭祐宗
24	五八一消毒除蟲有限公司	負責人	周清隆	周清隆
25	天嶸實業有限公司	相關人員	蕭淑雲	蕭淑雲
26	文生清潔公司	行政	黃秀融	黃秀融
✓ 27	文利害蟲防治有限公司	工地監工	莊佳穎	莊佳穎
28	台灣巴斯夫有限公司	副理	李應岳	

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
29	台灣巴斯夫股份有限公司	專員	林佑安	林佑安
30	台灣住友化學股份有限公司	經理	劉嘉昌	劉嘉昌
31	台灣拜耳股份有限公司	環境衛生登記主任	何季秦	何季秦
32	台灣莊臣股份有限公司	技術經理	陳俊明	陳俊明
33	台灣藍與綠有限公司	負責人	彭馨儀	彭馨儀
34	永盛環保消毒有限公司	老板	楊根明	楊根明
35	永雅消毒有限公司	負責人	田尚智	田尚智
36	禾茂環境有限公司	病媒防治師	謝雅香	
37	禾家除蟲企業行	組長	蕭詠升	蕭詠升
38	宇慶化工股份有限公司	副理	莊裕霖	莊裕霖
39	宇慶化工股份有限公司	顧問	盧高宏	盧高宏
40	安應股份有限公司	病媒防治專技人員	傅乾峰	傅乾峰
41	艾喜益	化妝品環藥管理師	劉家如	劉家如
42	亞太清潔有限公司	負責人	黃俊郎	

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
43	來來環保企業有限公司	專業技術人員	林晏瑜	
44	奇潔實業有限公司	負責人	梁桂芳	梁桂芳
45	尚大病媒防治有限公司	副理	劉家熏	劉家熏
46	尚大病媒防治有限公司	經理	陳盛炫	陳盛炫
47	彼得害蟲驅除有限公司	負責人	徐月蘭	徐月蘭
48	昆言企業股份有限公司	業務	林美惠	林美惠
49	肯潔企業有限公司	經理	丁佩泰	丁佩泰
50	剋星病媒害蟲防治有限公司	經理	顏廷彧	顏廷彧
51	南中化工有限公司	總經理	許志銘	許志銘
52	南興化工製藥股份有限公司	業務助理	劉淑萱	劉淑萱
53	昱聖國際有限公司	領班	高健翔	
54	耐士美企業有限公司	公司負責人	簡朝熹	簡朝熹
55	茂鴻物業管理有限公司	副主任	謝世民	謝世民
56	泰立環保服務有限公司	經理	李政盟	李政盟

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
57	商勝消毒清潔有限公司	課長	施啟松	施啟松
58	強威病媒防治有限公司	經理	葉樹強	葉樹強
59	添鏢國際有限公司	業務經理	葉惠英	葉惠英
60	清華環保實業有限公司	業務經理	陳建勳	陳雅軒
61	清華環保實業有限公司	中南區業務主任	黃宗琦	
62	清華環保實業有限公司	北區業務主任	陳雅軒	
63	頂欣環保生技社	施工部	烏懷安	烏懷安
64	頂頂企業有限公司	主任	盧憲德	盧憲德
65	頂響能多潔股份有限公司	服務部經理	陳美江	陳美江
66	喜時國際股份有限公司	防治經理	許振洋	
67	惠光化學股份有限公司	襄理	江憲昌	江憲昌
68	朝華企業有限公司	負責人	李紹華	李紹華
69	朝陽病媒防治有限公司	防治師	蕭旭良	蕭旭良
70	華夏股份有限公司	領班	李偉農	李偉農

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
71	雅比斯環保科技有限公司	專業技術人員	卓至誠	卓至誠
72	新宇環保實業有限公司	負責人	楊少芬	楊少芬
73	暉黃環保工程有限公司	負責人	郭禮捷	郭禮捷
74	瑞泰清潔企業社	董事長	洪健坤	
75	煒竣實業有限公司	會計	吳維義	吳維義
76	碩元有限公司	業務專員	李玉琴	李玉琴
77	碩元有限公司	經理	李豐先	李豐先
78	維家企業有限公司	總經理	孫定邊	孫定邊
79	臺億環境服務有限公司	專業技術員	陳嘉信	陳嘉信
80	德信白蟻防治有限公司	負責人	洪健雍	洪健雍
81	澄朗興業有限公司	總經理	林崇億	林崇億
82	震大有限公司	負責人	林光鴻	林光鴻
83	興農股份有限公司	區處長	林丞崇	林丞崇
84	興農股份有限公司	區處長	鄭一平	鄭一平

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
85	錦石企業有限公司	總經理	許煌龍	
86	優美環境管理有限公司	專員	張雅惠	張雅惠
87	環冠環境衛生服務有限公司	總經理	王健市	王健市
88	薇蘭登股份有限公司	環藥管理師	寧愛華	寧愛華
89	耀際實業有限公司	經理	曾國政	
90	鑫銳企業社	負責人	陳裴文宏	陳裴文宏
91	步步企業有限公司		陳政忠	陳政忠
92	步步企業有限公司		馬靜芳	
93	懸九企業有限公司		謝清煙	
94	興聯害蟲防治系統有限公司	消毒技術人員	王嘉祥	
95	明亮消毒企業社	專責技術人員	黃順琦	黃順琦
96	明亮消毒企業社	專責技術人員	洪榮蓬	洪榮蓬
97	工研院生醫所		鍾文青	鍾文青
98	工研院生醫所		陳佳慶	陳佳慶
99	工研院生醫所		鄭興朋	鄭興朋

2011 年環境用藥技術應用研討會 簽到表

序號	參加單位	職稱	姓名	簽到
100	桃園縣病媒防治公會	理事長	羅福增	羅福增
101	諾卡威國際股份有限公司	總經理	李光程	李光程
102	威務股份有限公司	部門經理	吳瑞齡	吳瑞齡
103	威務股份有限公司	市場開發專員	陳彥瑾	
104	一潔環境			沈廷義
105	昆台公司			黃惠璋
106	Henkel Home Care Korea Ltd			林文仁
107	振興發科技			黃勝敏
108	元培科技大學			林義杰
109	志成(股)			董明鏡
110	漢石			張福明
111	環資國際有限公司	工程師	顏敬泰	顏敬泰
112	環資國際有限公司	工程師	顏敬泰	顏敬泰
113	環資國際有限公司		梁燕	梁燕
114	環資國際有限公司		王雅琪	王雅琪

附件二十

環境衛生用藥藥效測試通則

環境衛生用藥藥效測試通則

中華民國 90 年 3 月 8 日 (90) 環署檢字第 14086 公告

自中華民國 90 年 6 月 8 日起實施

NIEA D101.00C

前言

環境衛生用藥不論是家庭用或專業用藥，都必須通過藥效測試才能保證具有基本的殺蟲效果。一般環境衛生害蟲和人類息息相關，雖然昆蟲種類繁多，但在藥效測試工作中所遵循的原則都是一致的。本通則即針對藥效測試工作中，應遵守的共同原則加以說明討論，以期作為相關測試人員工作之參考。

本通則分別對藥效測試實驗室內應遵循的規範以及實驗室內的設備、儀器和器皿的種類及其使用管理清潔和待測樣品的採樣及保存等加以說明。

一、通論

環境衛生害蟲包括居家害蟲，也就是在居家周圍及居戶內生存的有害昆蟲，以及城鄉害蟲也就是在離居家遠，但對人類環境衛生或傳播疾病影響人類生活的害蟲。這二大類害蟲，在一般藥效測試實驗室中，進行室內飼育測試蟲體或測試方法，其原理原則是一致的。本通則針對實驗室進行實驗，所應共同注意及遵守的原則加以討論及說明。本通則並不包括環境衛生害蟲個別之藥效測試標準方法，這些標準測試方法，中央主管機關另有規範。

一般在環境衛生害蟲藥效測試實驗室中，基本上必須遵守的通則有：

1. 在實驗檯上不可放置任何非實驗必須的物件。
2. 每次工作開始及終止時，必須清理並擦拭實驗檯面（最常用的為 70 % 酒精水溶液）。
3. 在操作過程中絕不可抽煙、飲食或使用化粧品（例如：用口紅補粧等）。
4. 在操作過程中必須穿上清潔的實驗衣並帶防毒口罩及橡膠手套，若蓄長髮須將長髮束好。實驗室內的各種儀器，尤其是各種

檢驗器材、待檢藥劑，皆不可任意移至實驗室外。

5. 與實驗有關之任何一種測試藥劑，在處理時均須遵守：

(1) 取藥、稀釋等準備工作皆需在抽氣櫃內操作。

(2) 絕不可用口自吸管吸取藥劑等類似行為。

(3) 如果藥劑打翻，必須以衛生紙加以清除，再以清水拭淨，並依照一般實驗室的廢棄物加以處理。

(4) 任何藥劑在室內使用完畢都必須隨時加蓋。

6. 在任何操作過程的開始前及終止後，雙手都必須以清潔劑清洗。

7. 待測試用環境衛生用藥必須貯藏於隔離、通風及陽光不會直射的空間中。

有關實驗室中其它各種儀器、設備、用具及器皿的使用及應注意事項，將於下列章節中分別說明之。

二、實驗室設施及設備

實驗室進行藥效測試設施包括：(一) 養蟲室、(二) 藥劑配製室、(三) 生物藥效測試室，和(四) 測試昆蟲觀察恢復室。所需用的各種設備規格及應具有的功能特性不同。

(一) 養蟲室

1. 養蟲籠

養蟲室中所用養蟲籠依蟲體的不同而有不同形狀、大小與材質，最好具有下列各項特性者：

(1) 堅固的結構，由不銹鋼、壓克力或玻璃材質組成者，並有透氣裝置如紗網等。

(2) 由外部可完全觀察內部各角落者，如透明玻璃、塑膠、壓克力或透明紗網。

(3) 有出入口可簡易取出或置入測試昆蟲的裝置。

(4) 易於清洗耐用者。

2. 吸蟲管

(1) 成蟲用：透明不易碎的壓克力管為佳，並有阻隔蟲體直接吸入口中的裝置。

(2) 幼蟲用：輕便易清洗，口徑應大於蟲體者。

3. 鑷子

不銹鋼製之夾子（軟夾）為佳，二夾之接觸面越小越好，不會傷害蟲體。

4. 鼠夾

以不銹鋼製不傷害鼠體即可。

5. 蟲體培養器皿選擇不易被腐蝕的不銹鋼器皿、玻璃或塑膠製品。

6. 養蟲室通風

養蟲室應離其他實驗室至少 20 公尺以上或有適當隔離設施，應有排氣設備並利用空調來控制室內通風排氣等問題。

7. 養蟲室溫、濕度

養蟲室的溫度以 25 °C 為宜，相對濕度維持在 60 至 65 % 較佳。

8. 養蟲室桌面

養蟲室中的標準桌面應有 90 cm 高、70 cm 深，其長度則依實驗室的規劃而有所不同，但在每次工作時，桌面長度應至少有 1 至 1.5 M。桌面的質地必須是以能防火、防腐蝕的物質所構成的光滑平面。如果桌面有接縫，必經以矽膠填補。

9. 養蟲室照明

工作區桌面照明應良好，一般以 1000 Lux 為度。

10. 養蟲室牆壁及地板

牆壁和地板的材質以易於清洗者即可。

11. 抽氣櫃

為避免環境衛生用藥污染實驗室及危害人體，藥品配製應在抽氣櫃中進行。

12. 天平

天平應至少有兩台，其中之一可精稱至 1 g，可容許測量的最大重量至少應有 2000 g，其功用為稱量大量的藥品；另一個是分析用天平，可精稱至 1 ~ 0.1 mg 的範圍，其功能是稱量微量的藥品（低於 2 g）。

13. 吸管、量筒及定量瓶

應選擇其校正誤差不超過 2.5 % 者。除了以此標準來選擇具刻度的吸管及量筒外，另外必須考慮其上的刻度，通常若選擇 10 mL 的吸管或量筒，其上應有 1 mL 及 0.1 mL 刻度者。定量瓶和稀釋用試管應以不易被腐蝕的玻璃材質製品為主，上覆以錫箔紙。

14. 玻璃器皿

燒杯（或採用可丟棄的紙杯或塑膠杯）、培養皿及試管等。

15. 稀釋用水以蒸餾水或逆滲透水：

（1）蒸餾水製備裝置

（2）逆滲透裝置

16. 顯微鏡

實驗室中至少準備兩種顯微鏡，即一般光學顯微鏡及解剖顯微鏡。

（1）一般光學顯微鏡

此種顯微鏡於教學與研究上使用，例如蘇力菌的大小或

染色結果等一些初步的觀察。其光源一般為鎢絲燈泡：接目鏡（插於鏡筒中）應至少為 10 倍；接物鏡至少應備有 10 倍、40 倍以及 100 倍的鏡頭，鏡頭之 NA（Numerical aperture）值則不得低於 1.4。

（2）解剖顯微鏡

此種顯微鏡用於計數或觀察蟲體是否死亡用，倍數以 10 倍至 40 倍的變焦鏡頭為佳。

（二）藥劑配製室

1. 藥劑配製室通風

藥劑配製室應離養蟲室至少 20 公尺以上或有適當隔離設施，以避免揮發性葯劑之污染。應有排氣設備並利用空調來控制室內通風排氣等問題。

2. 藥劑配製室溫、濕度

藥劑配製室的溫度以 25 °C 為宜，相對濕度維持在 60 至 65 % 較佳。

3. 藥劑配製室桌面

參照（一）、8 養蟲室桌之規格。

4. 藥劑配製室照明

工作區桌面照明應良好，一般以 1000 Lux 為度。

5. 藥劑配製室牆壁及地板

牆壁和地板的材質以易於清洗者即可。

6. 抽氣櫃

為避免環境衛生用藥污染實驗室及危害人體，藥品配製應在抽氣櫃中進行。

7. 天平

參照（一）、12 天平之規格。

8. 吸管、量筒及定量瓶

參照（一）、13 吸管、量筒及定量瓶之規格。

9. 玻璃器皿

燒杯（或採用可丟棄的紙杯或塑膠杯）、培養皿及試管等。

10. 稀釋用水以蒸餾水或逆滲透水為主：

（1）蒸餾水製備裝置

（2）逆滲透裝置

（三）生物藥效測試室

1. 測試籠

生物藥效測試室中所用測試籠依蟲體的不同而有不同形狀、大小與材質，最好具有下列各項特性者：

（1）堅固的結構，由不銹鋼、壓克力或玻璃材質組成，並有透氣裝置如紗網者。

（2）由外部可完全觀察內部各角落者，如透明玻璃、塑膠、壓克力或透明紗網。

（3）有出入口可簡易取出或置入蟲或鼠的裝置。

（4）易於清洗耐用者。

2. 吸蟲管

（1）成蟲用：透明不易碎的壓克力管為佳，並有阻隔蟲體直接吸入口中的裝置。

（2）幼蟲用：輕便易清洗，口徑應大於蟲體者。

3. 鑷子

不銹鋼製之夾子（軟夾）為佳，二夾之接觸面越小越好，以免

傷害蟲體。

4. 鼠夾

以不銹鋼製不傷害鼠體即可。

5. 生物藥效測試室通風

生物藥效測試室應離養蟲室至少 20 公尺以上或有適當隔離設施以避免揮發性藥劑之污染，應有排氣設備並利用空調來控制室內通風排氣等問題。

6. 生物測試室溫、濕度

實驗室的溫度以 25 °C 為宜，相對濕度維持在 60 至 65 % 較佳。

7. 生物測試室桌面

參照（一）、8 養蟲室桌面之規格。

8. 生物測試室照明

工作區桌面照明應良好，一般以 1000 Lux 為度。

9. 生物測試室牆壁及地板

牆壁和地板的材質以易於清洗者即可。

10. 抽氣櫃

為避免環境衛生用藥污染實驗室及危害人體，藥品配製應在抽氣櫃中進行。

11. 排風設備

幫助藥劑在測試空間中的均勻分佈。

12. 抽氣裝置

幫助實驗後藥劑之排除。

13. 計數器

14. 計時器或計時碼錶

15. 溫度計或溫度記錄器

(四) 測試昆蟲恢復觀察室

1. 養蟲籠

養蟲籠依蟲體的不同而有不同形狀、大小與材質，最好具有下列各項特性者：

- (1) 堅固的結構，由不銹鋼、壓克力或玻璃材質組成，並有透氣裝置如紗網者。
- (2) 由外部可完全觀察內部各角落者，如透明玻璃、塑膠、壓克力或透明紗網。
- (3) 有出入品可簡易取出或置入蟲或鼠的裝置。
- (4) 易於清洗耐用者。

2. 吸蟲管

- (1) 成蟲用：透明不易碎的壓克力管為佳，並有阻隔蟲體直接吸入口中的裝置。
- (2) 幼蟲用：輕便易清洗，口徑應大於蟲體者。

3. 鑷子

不銹鋼製之夾子（軟夾）為佳，二夾之接觸面越小越好，避免傷害蟲體。

4. 鼠夾

以不銹鋼製不傷害鼠體即可。

5. 蟲體培養器皿選擇不易被腐蝕的不銹鋼器皿、玻璃或塑膠製品。

6. 計數器

7. 計時器或計時碼錶

8. 溫度計或溫度記錄器

9. 測試昆蟲恢復觀察室通風

測試昆蟲恢復觀察室應離養蟲室至少 20 公尺以上或有適當隔離設施，應有排氣設備並利用空調來控制室內通風排氣等問題。

10. 測試昆蟲恢復觀察室溫、濕度

測試昆蟲恢復觀察室的溫度以 25 °C 為宜，相對濕度維持在 60 至 65 % 較佳。

11. 測試昆蟲恢復觀察室桌面

參照（一）、8 養蟲室桌面規格。

12. 測試昆蟲恢復室照明

工作區桌面照明應良好，一般以 1000 Lux 為度。

13. 測試昆蟲恢復觀察室牆壁及地板

牆壁和地板的材質以易於清洗者即可。

14. 抽氣櫃

為避免環境衛生用藥污染實驗室及危害人體。

15. 稀釋用水以蒸餾水或逆滲透水：

（1）蒸餾水製備裝置

（2）逆滲透裝置

16. 顯微鏡

實驗室中至少準備兩種顯微鏡，即一般光學顯微鏡及解剖顯微鏡。

（1）一般光學顯微鏡

此種顯微鏡於教學與研究上使用，例如蘇力菌的大小或

染色結果等一些初步的觀察。其光源一般為鎢絲燈泡：接目鏡（插於鏡筒中）應至少為 10 倍；接物鏡至少應備有 10 倍、40 倍以及 100 倍的鏡頭，鏡頭之 NA（Numerical aperture）值則不得低於 1.4。

（2）解剖顯微鏡

此種顯微鏡用於計數或觀察蟲體是否死亡用，倍數以 10 倍至 40 倍的變焦鏡頭為佳。

17. 恆溫培養箱 / 室

恆溫培養箱 / 室均具有溫度記錄器及警告裝置。

三、實驗室之管理

「良好的實驗室管理是實驗品質的保證，實驗品質的優劣是實驗室內分析數據可信度的基礎」。本章的重點在於規範實驗室人員管理、設備的設施管理、實驗室器材管理、藥效測試過程的品質管理及實驗結果記錄及保存等五個方向加以規範。

（一）實驗室人員管理

1. 操作人員管理

必須由專業的檢驗人員擔任，或由受訓合格的工作者指導、協助其他非專業人員進行各種工作。工作人員也必須不斷的進行在職訓練，以增進其對檢驗技術檢驗所需專業知識的瞭解。實驗室內應由專業人員制定活頁式的工作手冊，並定期修訂其內容，以幫助非專業工作人員減少可能發生的各種問題。

2. 實驗室清潔的保持

定期清理實驗室地板、桌面、架子及窗戶，尤其桌面在使用前後均必須用 70 % 酒精清理過。

3. 實驗室空間利用依實驗室空氣管理的考慮，實驗室中最好選擇人員往來行走最少的地方，劃成一獨立的區域。

（二）實驗室設施管理：

實驗室內各種度量衡的工具均應使用符合中央標準檢驗局標準的工具。所有的儀器設備都應做定期的保養，並應依儀器設備的種類及性質，在平時或每次使用前依下述的方法進行保養及檢查各種儀器，以確保儀器的性能，進而確保每次實驗數據的可信度。

1. 溫度計及溫度記錄器

在使用前應以標準溫度計，對實驗室內第一次使用的溫度計及溫度記錄器進行校正的工作。培養箱、冰箱及冷凍櫃上的溫度計，也應用標準溫度計校正溫度後，在正確溫度上做上記號，以作為未來溫度記錄的參考。

2. 天平

放置天平的桌面應為不受震動影響之單獨的實驗桌面，且桌面須維持水平及整潔。使用天平前後都應將天平的秤盤及機身清理乾淨。一般的藥劑粉末、灰塵用軟毛刷子加以清理，但若有任何液體潑灑，則必須立即用濕的衛生紙擦拭乾淨。為了確保天平的準確度，每月應用標準砝碼校正其讀數（注意，如果砝碼有任何腐蝕或損壞都不可再使用）。

天平除了應注意使用時清潔及其準確性的問題外，使用人更必須依每次稱重的重量及精準度的要求，慎選天平，因為各種不同的天平其測重的範圍及其靈敏度各不相同，只有選擇正確稱重範圍及靈敏度的天平來進行稱重工作，才能確保其測值的準確度。

3. 顯微鏡

顯微鏡在每次使用後應用拭鏡紙徹底清理鏡片（包括接目鏡及接物鏡）及鏡架。顯微鏡使用後，必須清理放回收藏位置並用罩子罩好。

4. 稀釋用蒸餾水或逆滲透水裝置

（1）蒸餾水製備裝置：

蒸餾水製備裝置必須定期的清洗，以避免漏水、腐蝕及污染等問題。蒸餾水製備裝置仍須依照製造廠商所附儀

器維修手冊上的說明，定期進行清洗、排水等清理工作，才能確保純水的品質。

(2) 逆滲透水製備裝置：

必需定期依廠商規定更換濾心，逆滲透膜及除臭裝置。

5. 恆溫培養箱 / 室

恆溫培養箱應於早、午紀錄二次其溫度，應在室內適當的定點，對室內的溫度加以監控，不可放置在直接受到日曬及日夜間溫度變化大的地方。

6. 實驗室通風

實驗室應通風良好，其最佳的解決方法就是利用分離式空調裝置，可以解決由濕度所引起的儀器（如天平等）不準等問題。

(三) 實驗室器材管理

實驗室內常有的用品，依性質可分成玻璃器皿及各式濾紙。本節將針對這些用品的管理做一概述。

1. 器材之管理

(1) 吸管、量筒及定量瓶

在實驗室中對於每種具有刻度的器皿，均應以合於標準的計量器進行體積的校正。使用吸管時，不可用嘴吸取任何樣品，須用吸管輔助器操作。

(2) 玻璃器皿

玻璃器皿的使用及管理應注意的事項如下：a. 玻璃器皿的完整性，b. 玻璃器皿的清潔程度。對上述的二個注意事項，可依下列原則一一加以監控，以確保玻璃器皿的使用安全及各實驗的品質。有關玻璃器皿的完整性，可在每次使用玻璃器皿時，檢查待用的玻璃器皿的是否有任何損毀缺口，尤其是量液瓶、有螺旋蓋的瓶子及三角瓶的螺旋蓋部份，有任何損毀都會造成使用時對桌面的污染及產生氣泡等問題，而其它的缺口又會造成使用者

的危害。因此，所有玻璃器皿若有任何種類的損毀時，都應丟棄。

(3) 濾紙或其它殘效用基質，因實驗目的不同而宜採用可拋棄式的用品。

2. 器皿的清洗：

各種器皿用具的清洗步驟，應包括四個程序：a. 用適當的清潔劑徹底清潔器皿，b. 用熱水除去器皿上微量殘留之清潔劑，c. 用蒸餾水沖洗器皿，d. 烘乾。

(四) 藥效測試過程的品質管理

1. 一般監控及品管過程

藥效測試一般昆蟲對藥劑暴露時間的掌控會影響到藥效，所以計時器或碼錶計時應極準確，如每隔 30 秒計數一次時，應有一人計時，一人監看蟲體，或一人操作施藥動作，一人計時計數。另外對於昆蟲的昏迷及死亡的定義，在實驗室中應有一致的認定方法，避免影響實驗結果。

2. 測試藥劑樣品收集

測試藥劑樣品必須依標幟上資料詳細填寫，並在樣品中隨機抽檢其中之一加以測試。其收集過程必須符合下列的要求：

(1) 樣本的收集必須具代表性。

(2) 藥品必須有明顯標識及公司行號等資料。所收集的藥品在運送或待檢測的過程中，其保存應以不會影響分析結果的方式處理。若必須在收集藥本後立刻進行檢測工作，則在採樣的同時，應備妥各種初步處理所需的物件。

(3) 採集藥品的量應以夠做所有的分析工作為準，但最好在此份量外，另外再多出一定的量，以防萬一。

(4) 與送檢有效成分的藥品應為同一批號產品。

3. 藥劑的稀釋

以高濃度藥劑之有效成份，逐漸往低濃度稀釋時，以搗和棒或磁石使試驗藥劑與溶劑完全均勻混合，再定量稀釋下一梯濃度者，實驗時以低濃度者開始實驗，再逐步升高試驗濃度。

4. 藥劑的勻質

(1) 藥劑在空間中的勻質

小空間可待藥劑量使用完畢後再暴露昆蟲接觸藥劑，大空間則可借助小型風扇吹勻藥劑再試驗。

(2) 藥劑在殘效實驗中的勻質

藥劑稀釋均勻後，定量放置於殘效材質上以自然擴散為主，若無法擴散之材質則用清潔乾淨之竹筷予以均勻塗抹。噴霧者殘效地帶至少有 10 公分。

(3) 藥劑在水中的勻質

藥劑稀釋均勻後，再放入定量水中，先以玻璃棒攪勻後，再放入供試昆蟲，玻璃棒攪拌順序由低濃度往高濃度順序進行。

(4) 蟲體被擊昏或死亡的判定

一般被擊昏是無法有正常的步行或飛行時皆視為被擊昏，而死亡則是全身無法動彈且經 24 小時後沒有恢復活動者稱之，其擊昏或死亡認定之標準必須一致。

(五) 實驗方法結果記錄之保存

任何藥效測試的分析結果至少應保存三年，其保存的方式可以是實驗報告，也可以是保存在筆記中或電腦內的原始資料。但是，不論用何種型式保存，資料內容須包括收到樣品的日期，及分析的日期、分析者、分析方法及分析結果等。至於結果的記錄，其遵循的基本原則是「詳實」及可追溯性，如果對結果有任何的修正，須注意應只用筆將原來的記錄註銷畫去，而不可把原來記錄撕去或銷毀，並應註明修正、註銷的原因，以為將來整理數據時的參考。

參考文獻：

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附件二十一

口服急毒性 OECD 420

OECD GUIDELINE FOR TESTING OF CHEMICALS

Acute Oral Toxicity – Fixed Dose Procedure

INTRODUCTION

1. OECD Guidelines for the Testing of Chemicals are periodically reviewed in the light of scientific progress or changing assessment practices. The original Guideline 420 was adopted in July 1992 as the first alternative to the conventional acute toxicity test, described in Test Guideline 401. Based on the recommendations of several expert meetings, revision was considered timely because: i) international agreement had been reached on harmonised LD50 cut-off values for the classification of chemical substances, which differ from the cut-offs recommended in the 1992 version of the Guideline, and ii) testing in one sex (usually females) is now considered sufficient.
2. Traditional methods for assessing acute toxicity use death of animals as an endpoint. In 1984, a new approach to acute toxicity testing was suggested by the British Toxicology Society based on the administration at a series of fixed dose levels (1). The approach avoided using death of animals as an endpoint, and relied instead on the observation of clear signs of toxicity at one of a series of fixed dose levels. Following UK (2) and international (3) *in vivo* validation studies the procedure was adopted by the Council as a Test Guideline in 1992. Subsequently, the statistical properties of the Fixed Dose Procedure have been evaluated using mathematical models in a series of studies (4)(5)(6). Together, the *in vivo* and modelling studies have demonstrated that the procedure is reproducible, uses fewer animals and causes less suffering than the traditional methods and is able to rank substances in a similar manner to the other acute toxicity testing methods (Test Guidelines 423 and 425).
3. Guidance on the selection of the most appropriate test method for a given purpose can be found in the Guidance Document on Acute Oral Toxicity Testing (7). This Guidance Document also contains additional information on the conduct and interpretation of Guideline 420.
4. Definitions used in the context of this Guideline are set out in Annex 1.

INITIAL CONSIDERATIONS

5. It is a principle of the method that in the main study only moderately toxic doses are used, and that administration of doses that are expected to be lethal should be avoided. Also, doses that are known to cause marked pain and distress, due to corrosive or severely irritant actions, need not be administered. Moribund animals, or animals obviously in pain or showing signs of severe and enduring distress shall be humanely killed, and are considered in the interpretation of the test results in the same way as animals that died on test. Criteria for making the decision to kill moribund or severely suffering animals, and guidance on the recognition of predictable or impending death, are the subject of a separate Guidance Document (8).
6. The method provides information on the hazardous properties and allows the substance to be ranked and classified according to the Globally Harmonised System (GHS) for the classification of chemicals which cause acute toxicity (9).

7. The testing laboratory should consider all available information on the test substance prior to conducting the study. Such information will include the identity and chemical structure of the substance; its physico-chemical properties; the results of any other *in vitro* or *in vivo* toxicity tests on the substance; toxicological data on structurally related substances; and the anticipated use(s) of the substance. This information is necessary to satisfy all concerned that the test is relevant for the protection of human health, and will help in the selection of an appropriate starting dose.

PRINCIPLE OF THE TEST

8. Groups of animals of a single sex are dosed in a stepwise procedure using the fixed doses of 5, 50, 300 and 2000 mg/kg (exceptionally an additional fixed dose of 5000 mg/kg may be considered, see paragraph 19). The initial dose level is selected on the basis of a sighting study as the dose expected to produce some signs of toxicity without causing severe toxic effects or mortality. Clinical signs and conditions associated with pain, suffering, and impending death, are described in detail in a separate OECD Guidance Document (8). Further groups of animals may be dosed at higher or lower fixed doses, depending on the presence or absence of signs of toxicity or mortality. This procedure continues until the dose causing evident toxicity or no more than one death is identified, or when no effects are seen at the highest dose or when deaths occur at the lowest dose.

DESCRIPTION OF THE METHOD

Selection of animal species

9. The preferred rodent species is the rat, although other rodent species may be used. Normally females are used (7). This is because literature surveys of conventional LD₅₀ tests show that usually there is little difference in sensitivity between the sexes, but in those cases where differences are observed, females are generally slightly more sensitive (10). However, if knowledge of the toxicological or toxicokinetic properties of structurally related chemicals indicates that males are likely to be more sensitive than this sex should be used. When the test is conducted in males, adequate justification should be provided.

10. Healthy young adult animals of commonly used laboratory strains should be employed. Females should be nulliparous and non-pregnant. Each animal, at the commencement of its dosing, should be between 8 and 12 weeks old and its weight should fall in an interval within $\pm 20\%$ of the mean weight of any previously dosed animals.

Housing and feeding conditions

11. The temperature of the experimental animal room should be 22°C ($\pm 3^\circ\text{C}$). Although the relative humidity should be at least 30% and preferably not exceed 70% other than during room cleaning the aim should be 50-60%. Lighting should be artificial, the sequence being 12 hours light, 12 hours dark. For feeding, conventional laboratory diets may be used with an unlimited supply of drinking water. Animals may be group-caged by dose, but the number of animals per cage must not interfere with clear observations of each animal.

Preparation of animals

12. The animals are randomly selected, marked to permit individual identification, and kept in their cages for at least 5 days prior to the start of dosing to allow for acclimatisation to the laboratory conditions.

Preparation of doses

13. In general test substances should be administered in a constant volume over the range of doses to be tested by varying the concentration of the dosing preparation. Where a liquid end product or mixture is to be tested however, the use of the undiluted test substance, ie at a constant concentration, may be more relevant to the subsequent risk assessment of that substance, and is a requirement of some regulatory authorities. In either case, the maximum dose volume for administration must not be exceeded. The maximum volume of liquid that can be administered at one time depends on the size of the test animal. In rodents, the volume should not normally exceed 1mL/100g of body weight; however in the case of aqueous solutions 2 mL/100g body weight can be considered. With respect to the formulation of the dosing preparation, the use of an aqueous solution/suspension/emulsion is recommended wherever possible, followed in order of preference by a solution/suspension/emulsion in oil (e.g. corn oil) and then possibly solution in other vehicles. For vehicles other than water the toxicological characteristics of the vehicle should be known. Doses must be prepared shortly prior to administration unless the stability of the preparation over the period during which it will be used is known and shown to be acceptable.

PROCEDURE**Administration of doses**

14. The test substance is administered in a single dose by gavage using a stomach tube or a suitable intubation canula. In the unusual circumstance that a single dose is not possible, the dose may be given in smaller fractions over a period not exceeding 24 hours.

15. Animals should be fasted prior to dosing (e.g. with the rat, food but not water should be withheld over-night; with the mouse, food but not water should be withheld for 3-4 hours). Following the period of fasting, the animals should be weighed and the test substance administered. After the substance has been administered, food may be withheld for a further 3-4 hours in rats or 1-2 hours in mice. Where a dose is administered in fractions over a period of time, it may be necessary to provide the animals with food and water depending on the length of the period.

Sighting study

16. The purpose of the sighting study is to allow selection of the appropriate starting dose for the main study. The test substance is administered to single animals in a sequential manner following the flow charts in Annex 2. The sighting study is completed when a decision on the starting dose for the main study can be made (or if a death is seen at the lowest fixed dose).

17. The starting dose for the sighting study is selected from the fixed dose levels of 5, 50, 300 and 2000 mg/kg as a dose expected to produce evident toxicity based, when possible, on evidence from *in vivo* and *in vitro* data from the same chemical and from structurally related chemicals. In the absence of such information, the starting dose will be 300 mg/kg.

18. A period of at least 24 hours will be allowed between the dosing of each animal. All animals should be observed for at least 14 days.

19. Exceptionally, and only when justified by specific regulatory needs, the use of an additional upper fixed dose level of 5000 mg/kg may be considered (see Annex 4). For reasons of animal welfare concern, testing of animals in GHS Category 5 ranges (2000-5000mg/kg) is discouraged and should only be considered when there is a strong likelihood that results of such a test have a direct relevance for protecting human or animal health or the environment.

20. In cases where an animal tested at the lowest fixed dose level (5mg/kg) in the sighting study dies, the normal procedure is to terminate the study and assign the substance to GHS Category 1 (as shown in Annex 2). However, if further confirmation of the classification is required, an optional supplementary procedure may be conducted, as follows. A second animal is dosed at 5mg/kg. If this second animal dies, then GHS Category 1 will be confirmed and the study will be immediately terminated. If the second animal survives, then a maximum of three additional animals will be dosed at 5mg/kg. Because there will be a high risk of mortality, these animals should be dosed in a sequential manner to protect animal welfare. The time interval between dosing each animal should be sufficient to establish that the previous animal is likely to survive. If a second death occurs, the dosing sequence will be immediately terminated and no further animals will be dosed. Because the occurrence of a second death (irrespective of the number of animals tested at the time of termination) falls into outcome A (2 or more deaths), the classification rule of Annex 3 at the 5mg/kg fixed dose is followed (Category 1 if there are 2 or more deaths or Category 2 if there is no more than 1 death).

Main study

Numbers of animals and dose levels

21. The action to be taken following testing at the starting dose level is indicated by the flow charts in Annex 3. One of three actions will be required; either stop testing and assign the appropriate hazard classification class, test at a higher fixed dose or test at a lower fixed dose. However, to protect animals, a dose level that caused death in the sighting study will not be revisited in the main study (see Annex 3). Experience has shown that the most likely outcome at the starting dose level will be that the substance can be classified and no further testing will be necessary.

22. A total of five animals of one sex will normally be used for each dose level investigated. The five animals will be made up of one animal from the sighting study dosed at the selected dose level together with an additional four animals (except, unusually, if a dose level used on the main study was not included in the sighting study).

23. The time interval between dosing at each level is determined by the onset, duration, and severity of toxic signs. Treatment of animals at the next dose should be delayed until one is confident of survival of the previously dosed animals. A period of 3 or 4 days between dosing at each dose level is recommended, if needed, to allow for the observation of delayed toxicity. The time interval may be adjusted as appropriate, e.g., in case of inconclusive response.

24. When the use of an upper fixed dose of 5000 mg/kg is considered, the procedure outlined in Annex 4 should be followed (see also paragraph 19).

Limit test

25. The limit test is primarily used in situations where the experimenter has information indicating that the test material is likely to be nontoxic, i.e., having toxicity only above regulatory limit doses. Information about the toxicity of the test material can be gained from knowledge about similar tested

compounds or similar tested mixtures or products, taking into consideration the identity and percentage of components known to be of toxicological significance. In those situations where there is little or no information about its toxicity, or in which the test material is expected to be toxic, the main test should be performed.

26. Using the normal procedure, a sighting study starting dose of 2000mg/kg (or exceptionally 5000mg/kg) followed by dosing of a further four animals at this level serves as a limit test for this guideline.

OBSERVATIONS

27. Animals are observed individually after dosing at least once during the first 30 minutes, periodically during the first 24 hours, with special attention given during the first 4 hours, and daily thereafter, for a total of 14 days, except where they need to be removed from the study and humanely killed for animal welfare reasons or are found dead. However, the duration of observation should not be fixed rigidly. It should be determined by the toxic reactions, time of onset and length of recovery period, and may thus be extended when considered necessary. The times at which signs of toxicity appear and disappear are important, especially if there is a tendency for toxic signs to be delayed (11). All observations are systematically recorded, with individual records being maintained for each animal.

28. Additional observations will be necessary if the animals continue to display signs of toxicity. Observations should include changes in skin and fur, eyes and mucous membranes, and also respiratory, circulatory, autonomic and central nervous systems, and somatomotor activity and behaviour pattern. Attention should be directed to observations of tremors, convulsions, salivation, diarrhoea, lethargy, sleep and coma. The principles and criteria summarised in the Humane Endpoints Guidance Document should be taken into consideration (8). Animals found in a moribund condition and animals showing severe pain or enduring signs of severe distress should be humanely killed. When animals are killed for humane reasons or found dead, the time of death should be recorded as precisely as possible.

Body weight

29. Individual weights of animals should be determined shortly before the test substance is administered and at least weekly thereafter. Weight changes should be calculated and recorded. At the end of the test surviving animals are weighed and then humanely killed.

Pathology

30. All test animals (including those that die during the test or are removed from the study for animal welfare reasons) should be subjected to gross necropsy. All gross pathological changes should be recorded for each animal. Microscopic examination of organs showing evidence of gross pathology in animals surviving 24 or more hours after the initial dosing may also be considered because it may yield useful information.

DATA AND REPORTING

Data

31. Individual animal data should be provided. Additionally, all data should be summarised in tabular form, showing for each test group the number of animals used, the number of animals displaying signs of toxicity, the number of animals found dead during the test or killed for humane reasons, time of death of individual animals, a description and the time course of toxic effects and reversibility, and necropsy findings.

Test report

32. The test report must include the following information, as appropriate:

Test substance:

- physical nature, purity, and, where relevant, physico-chemical properties (including isomerisation);
- identification data, including CAS number.

Vehicle (if appropriate):

- justification for choice of vehicle, if other than water.

Test animals:

- species/strain used;
- microbiological status of the animals, when known;
- number, age and sex of animals (including, where appropriate, a rationale for use of males instead of females);
- source, housing conditions, diet etc.

Test conditions:

- details of test substance formulation, including details of the physical form of the material administered;
- details of the administration of the test substance including dosing volumes and time of dosing;
- details of food and water quality (including diet type/source, water source);
- the rationale for the selection of the starting dose.

Results:

- tabulation of response data and dose level for each animal (i.e. animals showing signs of toxicity including mortality, nature, severity and duration of effects);
- tabulation of body weight and body weight changes;
- individual weights of animals at the day of dosing, in weekly intervals thereafter, and at time of death or sacrifice;
- date and time of death if prior to scheduled sacrifice;
- time course of onset of signs of toxicity and whether these were reversible for each animal;
- necropsy findings and histopathological findings for each animal, if available.

Discussion and interpretation of results.

Conclusions.

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- (11) Chan P.K and A.W. Hayes (1994) Chapter 16 Acute Toxicity and Eye Irritation In: Principles and Methods of Toxicology. 3rd Edition. A.W. Hayes , Editor. Raven Press, Ltd. New York, USA.

ANNEX 1**DEFINITIONS**

Acute oral toxicity refers to those adverse effects occurring following oral administration of a single dose of a substance, or multiple doses given within 24 hours.

Delayed death means that an animal does not die or appear moribund within 48 hours but dies later during the 14-day observation period.

Dose is the amount of test substance administered. Dose is expressed as weight of test substance per unit weight of test animal (e.g. mg/kg).

Evident toxicity is a general term describing clear signs of toxicity following the administration of test substance, (see Van den Heuvel, M.J., Clark, D.G., Fielder, R.J., Koundakjian, P.P., Oliver, G.J.A., Pelling, D., Tomlinson, N.J. and Walker, A.P. (1990). The international validation of a fixed-dose procedure as an alternative to the classical LD₅₀ test. *Fd. Chem. Toxicol.* 28, 469-482. (3) for examples) such that at the next highest fixed dose either severe pain and enduring signs of severe distress, moribund status (criteria are presented in the Humane Endpoints Guidance Document (8), or probable mortality in most animals can be expected.

GHS: Globally Harmonised Classification System for Chemical Substances and Mixtures. A joint activity of OECD (human health and the environment), UN Committee of Experts on Transport of Dangerous Goods (physical-chemical properties) and ILO (hazard communication) and co-ordinated by the Interorganisation Programme for the Sound Management of Chemicals (IOMC).

Impending death: when moribund state or death is expected prior to the next planned time of observation. Signs indicative of this state in rodents could include convulsions, lateral position, recumbence, and tremor. (See the Humane Endpoint Guidance Document (8) for more details).

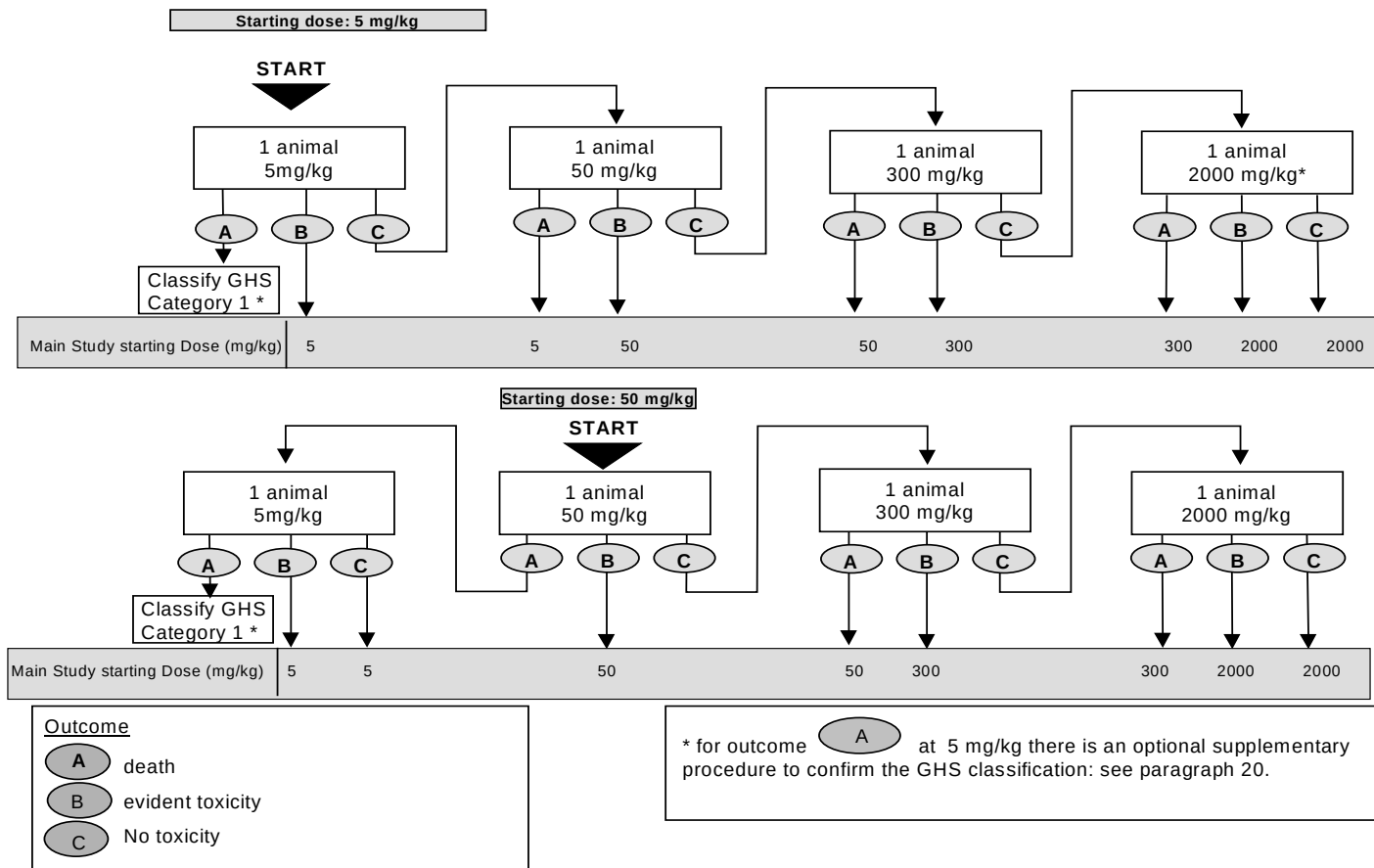
LD₅₀ (median lethal oral dose) is a statistically derived single dose of a substance that can be expected to cause death in 50 per cent of animals when administered by the oral route. The LD₅₀ value is expressed in terms of weight of test substance per unit weight of test animal (mg/kg).

Limit dose refers to a dose at an upper limitation on testing (2000 or 5000 mg/kg).

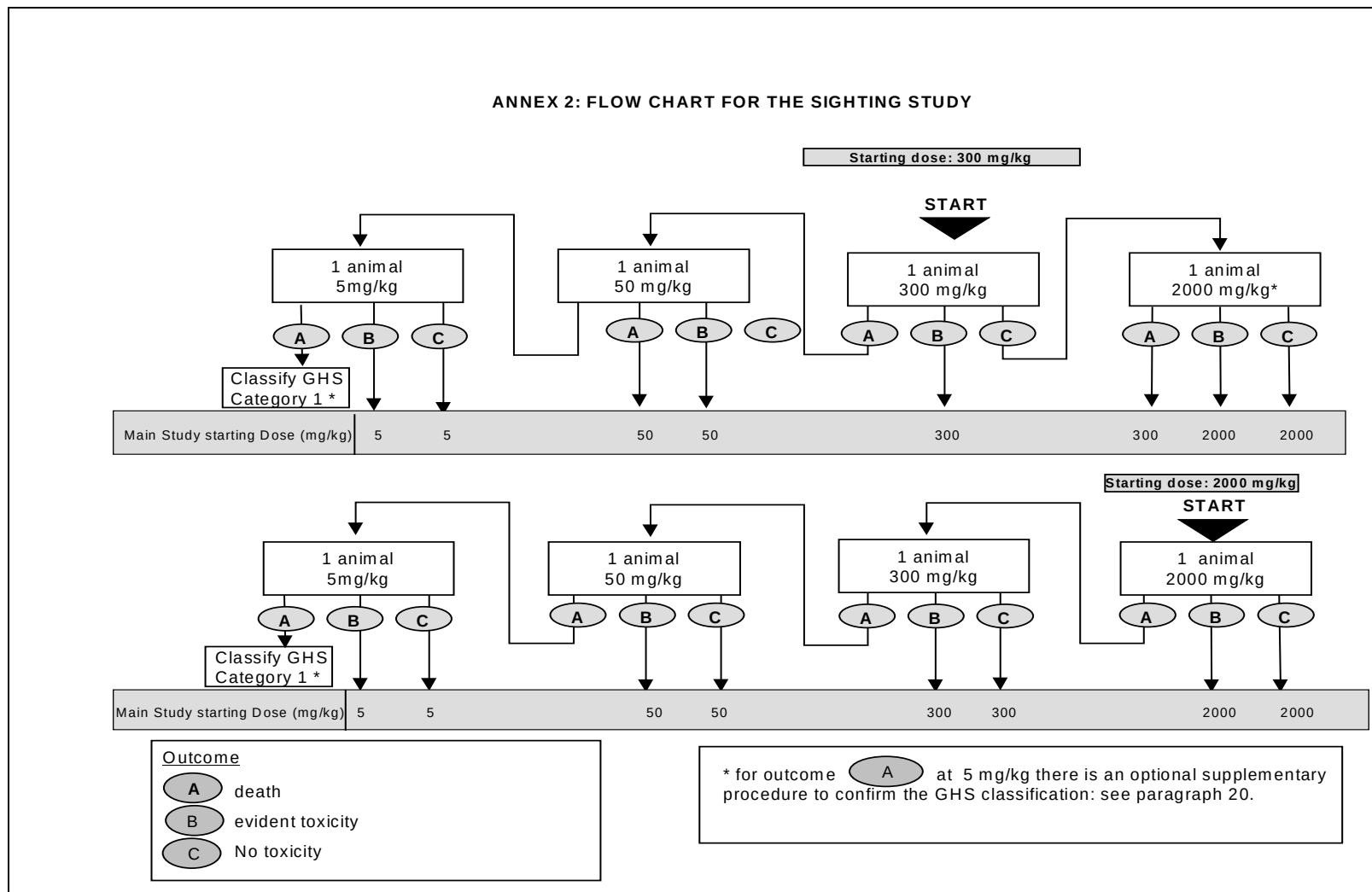
Moribund status: being in a state of dying or inability to survive, even if treated. (See the Humane Endpoint Guidance Document (8) for more details).

Predictable death: presence of clinical signs indicative of death at a known time in the future before the planned end of the experiment, for example: inability to reach water or food. (See the Humane Endpoint Guidance Document (8) for more details).

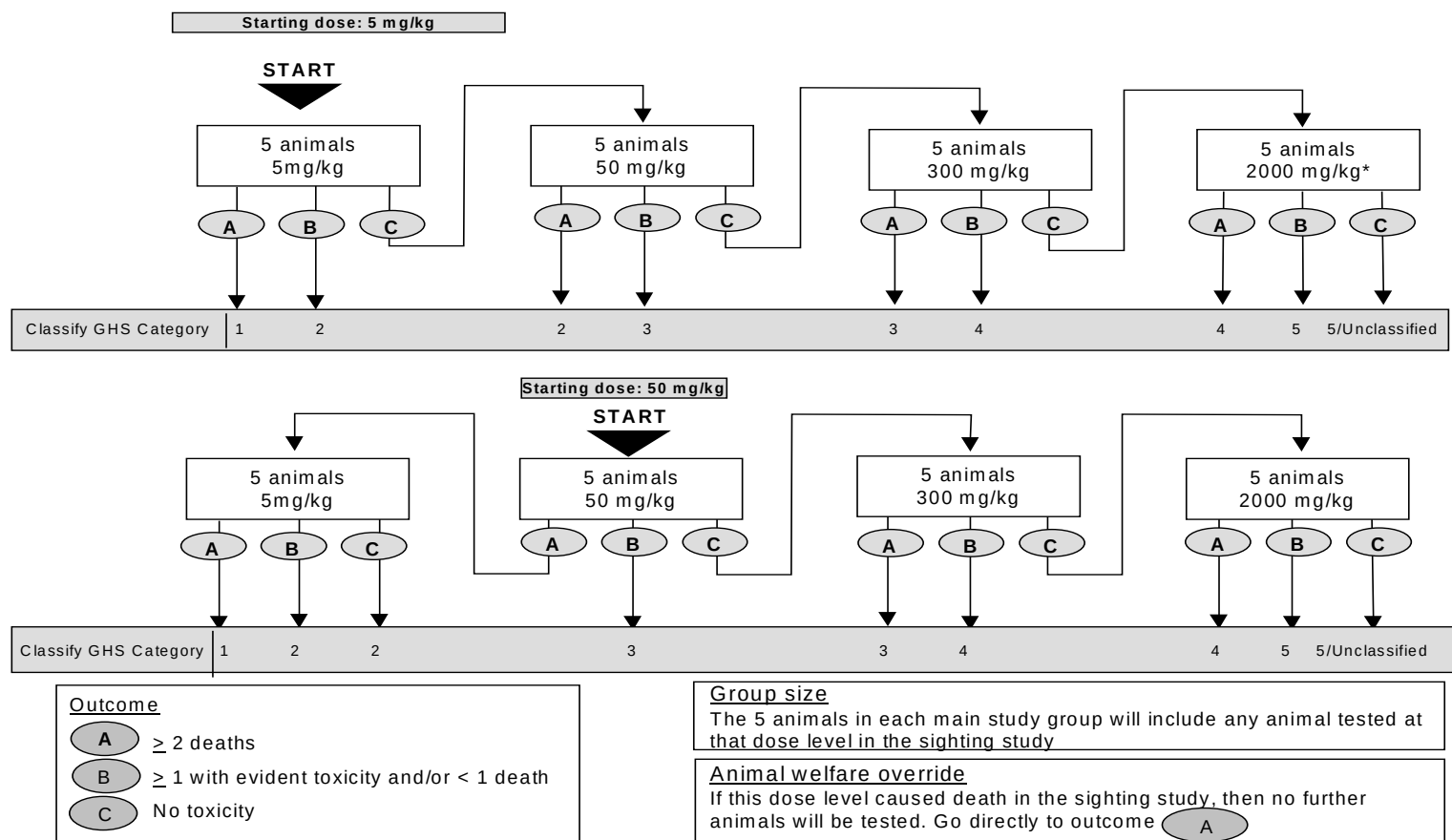
ANNEX 2: FLOW CHART FOR THE SIGHTING STUDY



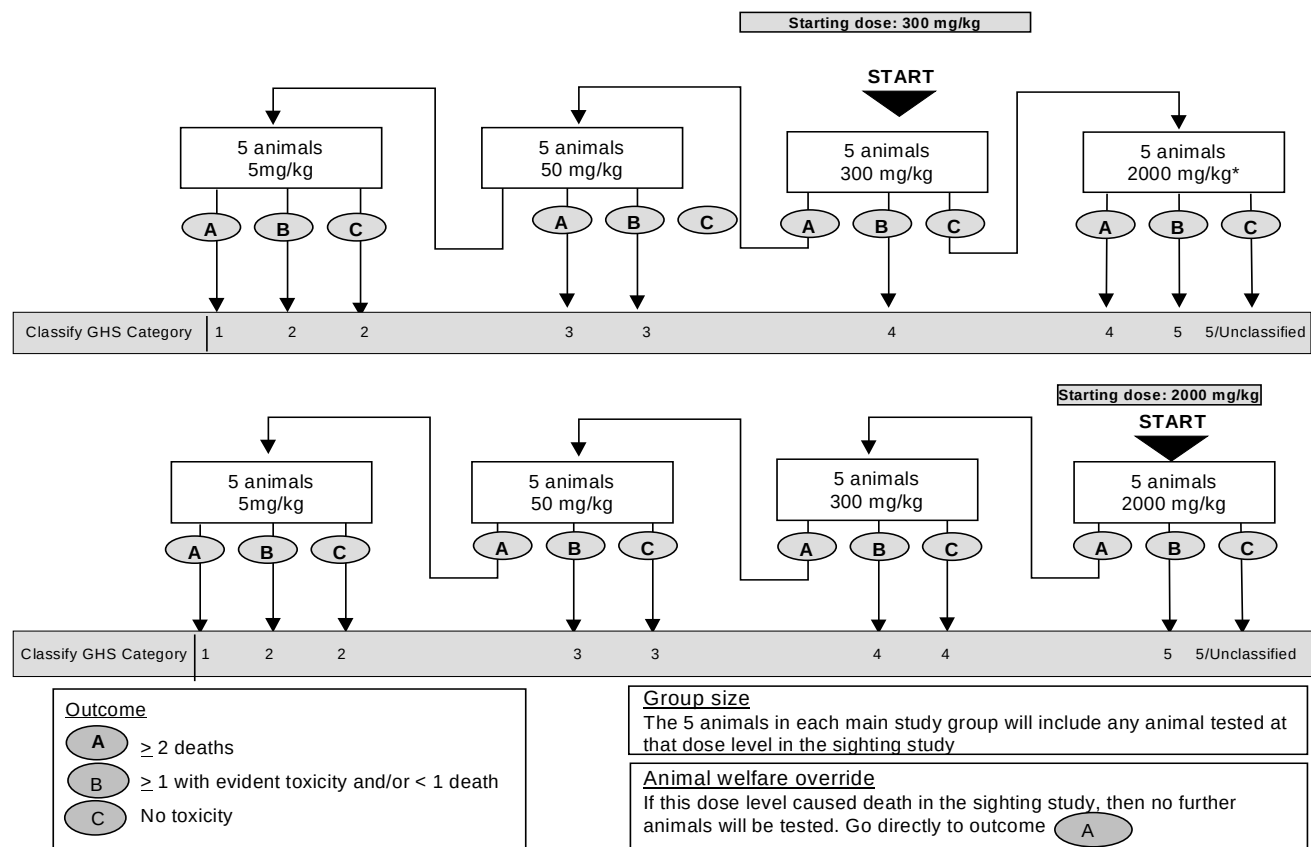
ANNEX 2: FLOW CHART FOR THE SIGHTING STUDY



ANNEX 3: FLOW CHART FOR THE MAIN STUDY



ANNEX 3: FLOW CHART FOR THE MAIN STUDY



ANNEX 4**CRITERIA FOR CLASSIFICATION OF TEST SUBSTANCES WITH EXPECTED LD50 VALUES EXCEEDING 2000 MG/KG WITHOUT THE NEED FOR TESTING.**

1. Criteria for hazard Category 5 are intended to enable the identification of test substances which are of relatively low acute toxicity hazard but which, under certain circumstances may present a danger to vulnerable populations. These substances are anticipated to have an oral or dermal LD50 in the range of 2000-5000 mg/kg or equivalent doses for other routes. Test substances could be classified in the hazard category defined by: 2000mg/kg <LD50 < 5000mg/kg (Category 5 in the GHS) in the following cases:

- a) if directed to this category by any of the testing schemes of Annex 3, based on mortality incidences;
- b) if reliable evidence is already available that indicates the LD50 to be in the range of Category 5 values; or other animal studies or toxic effects in humans indicate a concern for human health of an acute nature;
- c) through extrapolation, estimation or measurement of data if assignment to a more hazardous category is not warranted and
 - reliable information is available indicating significant toxic effects in humans, or
 - any mortality is observed when tested up to category 4 values by the oral route, or
 - where expert judgement confirms significant clinical signs of toxicity, when tested up to Category 4 values, except for diarrhoea, piloerection or an ungroomed appearance, or
 - where expert judgement confirms reliable information indicating the potential for significant acute effects from the other animal studies.

TESTING AT DOSES ABOVE 2000 MG/KG

2. Exceptionally, and only when justified by specific regulatory needs, the use of an additional upper fixed dose level of 5000 mg/kg may be considered. Recognising the need to protect animal welfare, testing at 5000 mg/kg is discouraged and should only be considered when there is a strong likelihood that the results of such a test would have a direct relevance for protecting animal or human health (9).

Sighting Study

3. The decision rules governing the sequential procedure presented in Annex 2 are extended to include a 5000 mg/kg dose level. Thus, when a sighting study starting dose of 5000 mg/kg is used outcome A (death) will require a second animal to be tested at 2000 mg/kg; outcomes B and C (evident toxicity or no toxicity) will allow the selection of 5000 mg/kg as the main study starting dose. Similarly, if a starting dose other than 5000 mg/kg is used then testing will progress to 5000 mg/kg in the event of outcomes B or C at 2000 mg/kg; a subsequent 5000 mg/kg outcome A will dictate a main study starting dose of 2000 mg/kg and outcomes B and C will dictate a main study starting dose of 5000 mg/kg.

Main Study

4. The decision rules governing the sequential procedure presented in Annex 3 are extended to include a 5000 mg/kg dose level. Thus, when a main study starting dose of 5000 mg/kg is used, outcome A (≥ 2 deaths) will require the testing of a second group at 2000 mg/kg; outcome B (evident toxicity and/or ≤ 1 death) or C (no toxicity) will result in the substance being unclassified according to GHS.

Similarly, if a starting dose other than 5000 mg/kg is used then testing will progress to 5000 mg/kg in the event of outcome C at 2000 mg/kg; a subsequent 5000 mg/kg outcome A will result in the substance being assigned to GHS Category 5 and outcomes B or C will lead to the substance being unclassified.

附件二十二

WHO 測試實驗申請表 與相關收費標準

World Health Organization
Parasitic Diseases and Vector Control (PVC)
Communicable Disease Control, Prevention and
Eradication (CPE)
World Health Organization
1211 Geneva 27
Switzerland

INSECTICIDE RESISTANCE MONITORING IN DISEASE VECTORS

Procedures and conditions for supply of test kits

Test kits will be supplied/dispached from Universiti Sains Malaysia (USM), Penang, Malaysia, a WHO Collaborating Centre.

1. Requests

Requests should be made directly to the Coordinator, Vector Control Research Unit, School of Biological Sciences, Universiti Sains Malaysia (Attn: Associate Professor Dr Zairi Jaal, Tel: 604-6574776; Fax: 604-6577200; e-mail: zairi@usm.my).

Requests, where the costs of items are to be met through WHO allotments, must be sent through the relevant WHO Country Representatives (WR), or WHO Regional Offices or the respective units at WHO Headquarters.

All requests must be accompanied by a copy of form WHO.USM/00.1 (enclosed) in which all relevant information should be filled to avoid unnecessary delays in responding to requests.

Insecticide impregnated papers and adult mosquito testing material (most in demand) should be requested in form WHO.USM/00.2a (enclosed), which is based on information extracted from this catalogue.

Material for testing mosquito larvae, other disease vectors, and pests may be requested on form WHO/USM/00.2b (enclosed).

To assist USM/WHO collaborating centre in its operations, and to avoid last minute responses and unnecessary follow up, it would be appreciated if the supply requirements are planned and requested sufficiently in advance, the necessary forms properly filled and procedures specified followed.

2. Proforma invoice

On receipt of requests, preferably by e-mail, USM will send an e-mail, fax or regular mail proforma invoices covering, the cost of items and despatch charges.

3. **Despatches and notification**

Items requested will be despatched only on receipt of payments to the USM Bank account specified under 5.

Despatches in response to requests received through WHO (Country Representatives, Regional Offices or Headquarters where the costs are to be met through WHO allotments) will however be made without waiting for payment, **provided the allotment and sticker numbers are indicated.**

Unless not specified, items will be despatched by express mail cargobox (Federal Express, DHL, ...) so that they will be received within a few days only directly to the mentioned address.

4. **Costing**

All materials will be charged according to the prices given in the Catalogue. The cost of transport (express mail, air freight and insurance/courier/mail) depends on the items, destination and mode of transport requested under item 8 (WHO.USM/00.1). If item 8 is not indicated, we will despatch the items on the most convenient route available, preferably by express mail.

Costing of items and payment will be made in US Dollars.

5. **Instructions for Payment**

By **Cheque/Bankdraft**:

Cheque/bankdraft must be made payable to
“BURSAR, UNIVERSITI SAINS MALAYSIA”
to be sent to:

The Coordinator
Vector Control Research Unit
School of Biological Sciences
Universiti Sains Malaysia
11800 Minden, Penang, MALAYSIA

or By **telegraphic transfer** to

Name of Account: Universiti Sains Malaysia
Current Account No (Collection):
207130-00001079

Name of Bank: RHB Bank Berhard
Sungai Dua Branch
4H & 4J Desa Universiti
Commercial Complex
Jalan Sungai Dua
11700 Gelugor
Pulau Pinang
Malaysia

Please send us a copy of your advice slip so that we can ensure that payment received is credited to the proper account.

All payments (either by cheque/bankdraft or telegraphic transfer) must indicate our reference number (**WHO/VCRU.../2000**). Please specify that payment is for the **Vector Control Research Unit**, School of Biological Sciences, Universiti Sains Malaysia, for the purchase of **WHO Test Kits**. This is necessary to ensure that payment received is credited into the proper account.

Global Programme for Resistance Monitoring and Management
Parasitic Diseases and Vector Control (PVC)
Communicable Disease Control, Prevention and Eradication (CPE)
World Health Organization
1211 Geneva 27
Switzerland

Vector Control Research Unit
School of Biological Sciences
11800 Minden, Penang
Malaysia
Tel: 604-6574776
Fax: 604-6577200

SUPPLIES FOR INSECTICIDE RESISTANCE MONITORING
Requisition form

1. Requester's reference _____ 2. WHO/VCRU reference _____
Date of request _____ Date received _____
3. Country _____ WHO Region _____
4. Requested by:
Name _____
Address _____

(Please include street name, city, zipcode and country)
Tel _____ Fax _____
5. Supplies to be sent to:
Name _____
Address _____

(Please include street name, city, zipcode and country)
Tel _____ Fax _____
Name of nearest international airport _____
6. Invoice to be sent to:
Name _____
Address _____

(Please include street name, city, zipcode and country)
Tel _____ Fax _____
7. For WHO requisitions only
Allotment No _____ Sticker/Obligation No _____
8. Items to be despatched by (please tick)
Express cargo box ☐ Air freight ☐ Post parcel ☐ Others ☐ _____
please specify

Your ref: _____
 WHO/VCRU Ref: _____
to be filled by USM

WHO.USM/00.2a (req)

	Item	Cost per unit (US\$)	Quantity	Total cost (US\$)
A. Insecticide impregnated papers (boxes) - each box with 8 papers				
1.	DDT 4.0%	12.00		
2.	Dieldrin 0.4%, 4.0%	12.00		
3.	Control in risella oil (OC control)	12.00		
4.	Malathion 5.0%	18.00		
5.	Fenitrothion 1.0%	18.00		
6.	Propoxur 0.1%	18.00		
7.	Bendiocarb 0.1%	18.00		
8.	Control in olive oil (OP/C control)	18.00		
9.	Permethrin 0.75%	18.00		
10.	Deltamethrin 0.05%	18.00		
11.	Lambdacyhalothrin 0.05%	18.00		
12.	Cyfluthrin 0.15%	18.00		
13.	Etofenprox 0.5%	18.00		
14.	Control in silicone oil (PY control)	18.00		
B. Other items				
15.	Adult mosquito (diagnostic) test kit (WHO/VBC/81.806)**	42.00		
16.	Adult mosquito (base-line) test kit (WHO/VBC/81.805)**	60.00		
17.	Bioassay kit (VBC/81.5)**	42.00		
18.	Aspirators (straight)*	3.00		
19.	Aspirators (bent)*	5.00		
20.	Bioassay cones (conical chamber)	0.60		
21.	Test tube for adult mosquitos - 1 tube with red dot (exposure), 1 tube with green dot (holding) and 1 slide	8.00		
22.	Metal clip (copper) - exposure tube	0.50		
23.	Metal clip (silver) - holding tube	0.50		
TOTAL COST OF ITEMS				

Notes: * 18. 1 straight plastic tube, 1 plastic tubing, 1 mouthpiece for WHO test tubes.
 19. 1 bent glass tube, 1 rubber tubing, 1 mouthpiece for conical chamber.
 21. Plastic tubes comprising: 1 tube with red dot (exposure), 1 tube with green dot (holding), 1 slide.

** See detailed content in annex.

	Item	Cost per kit (US\$)	Quantity	Total cost (US\$)
C. Other test kits available:				
24.	Bed-bugs WHO/VBC/81.809	57.20		
25.	Blackflies (Adult), Sandflies & Biting Midges WHO/VBC/81.810	90.40		
26.	Blackflies (larvae) WHO/VBC/81.811	27.10		
27.	Cockroaches WHO/VBC/75.593	30.00		
28.	Dichlorvos & Other Persistent Fumigants WHO/VBC/75.594	75.30		
29.	Fleas WHO/VBC/81.815	90.40		
30.	Houseflies, Tsetse Flies, Stableflies, Blowflies, etc. WHO/VBC/81.813	45.20		
31.	Lice (Body and Head) WHO/VBC/81.808	4.00		
32.	Mosquitos (Larvae) WHO/VBC/81.807	33.00		
33.	Mosquitos (Larvae resistance to development inhibitors) WHO/VBC/81.812	59.00		
34.	Reduviid Bugs WHO/VBC/75.587	39.20		
35.	Rodents WHO/VBC/82.843	59.00		
36.	Ticks (Adult) WHO/VBC/81.814	72.30		
D. Other Insecticide Papers*/Solutions <i>(please indicate target insects and concentrations required)</i>				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				
45.				
46.				
47.				
48.				
49.				
50.				
TOTAL COST OF ITEMS				

* For concentrations not already listed here, there must be a minimum order of 10 boxes per concentration.

CATALOGUE OF TEST KIT MATERIALS FOR DETERMINING THE SUSCEPTIBILITY OF VECTORS TO PESTICIDES

PRICE LIST No. 3 (APRIL 2000) IMPORTANT

- Note 1.** Equipment and/or insecticides may be ordered separately. Dichlorvos, other persistent fumigants and rodent kits are, however, only issued complete. The order should specify the concentrations and the number of boxes, or sets of boxes, solutions or sets of solutions. The prices shown in the list do not include the cost of despatch.
- Note 2.** Solutions containing volatile solvents are air freighted and in accordance with air transport regulations; the maximum volume of solvents allowed per parcel is 5 litres (i.e. 100 x 50 ml bottles).
- Note 3.** All orders should include the price in US Dollars. Our invoice will be drawn up according to current rate of exchange for the current month of the dispatch.

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4	Mosquitos (Larvae Resistance To Development Inhibitors)	WHO/VBC/81.812	5
5	Test Kit For Bioassay On Wall Surface	VBC/81.5	1
6	Dichlorvos & Other Persistent Fumigants	WHO/VBC/75.594	1
7	Houseflies, Tsetse Flies, Stableflies, Blowflies, Etc.	WHO/VBC/81.813	6
8	Reduviid Bugs	WHO/VBC/75.587	1
9	Bed-Bugs (Adult)	WHO/VBC/81.809	4
10	Blackflies (Adult), Sandflies & Biting Midges	WHO/VBC/81.810	4
11	Blackflies (Larvae)	WHO/VBC/81.811	5
12	Cockroaches	WHO/VBC/75.593	1
13	Lice (Body And Head)	WHO/VBC/81.808	3
14	Fleas	WHO/VBC/81.815	7
15	Ticks (Adult)	WHO/VBC/81.814	7
16	Rodents	WHO/VBC/82.843	7

MOSQUITOS (ADULT) DIAGNOSTIC TEST (WHO/VBC/81.806)

Equipment (as described below)

Price per kit US\$ 42.00

2 plastic tubes with red dot; 6 plastic tubes with green dot; 4 slide units; 20 sheet of white papers, 15 x 12 cm; 6 clips (silver); 2 clips (copper); 2 tube aspirators, straight; 2 plastic tubings, 60 cm; 2 mouthpieces; 1 roll of scotch adhesive tape; 1 instruction sheet WHO/VBC/81.806; 1 document WHO/VBC/81.6 criteria; 20 report forms; 3 log probability papers; 1 label.

Insecticide impregnated papers

	US\$ per box		US\$ per box
DDT 4%	12.00	Control in olive oil (OP/C control)	18.00
Dieldrin 0.4%	12.00	Permethrin 0.75%	18.00
Dieldrin 4%	12.00	Deltamethrin 0.05%	18.00
Control in risella oil	12.00	Lambdacyhalothrin 0.05%	18.00
(OC control)	12.00		
Malathion 5%	18.00	Cyfluthrin 0.15%	18.00
Fenithrothion 1%	18.00	Etopenprox 0.5%	18.00
Propoxur 0.1%	18.00	Control in silicone oil (PY control)	18.00
Bendiocarb 0.1%	18.00		

* Other concentrations available on request (US\$ per box)

** Special instructions for perimiphos-methyl. Please contact USM through e-mail or facsimile.

MOSQUITOS (ADULT) ESTABLISHMENT OF THE BASE-LINE (WHO/VBC/81.805)

Equipment (as described below)

Price per kit US\$ 60.00

5 plastic tubes with red dot; 7 plastic tubes with green dot; 6 slide units; 40 sheet of white paper, 15 x 12 cm; 7 clips (silver); 5 clips (copper); 2 tube aspirators, straight; 2 plastic tubings, 60 cm; 2 mouthpieces; 1 roll of scotch adhesive tape; 1 instruction sheet WHO/VBC/81.805; 1 document WHO/VBC/81.6 criteria; 20 report forms; 3 log probability papers; 1 label.

Insecticide impregnated papers

	US\$ per box		US\$ per box
DDT 0.25%	12.00	Malathion 5%	18.00
DDT 0.5%	12.00	Fenithrothion 1%	18.00
DDT 1%	12.00	Propoxur 0.1%	18.00
DDT 2%	12.00	Bendiocarb 0.1%	18.00
DDT 4%	12.00	Control in olive oil	18.00
Dieldrin 0.05%	12.00	Permethrin 0.75%	18.00
Dieldrin 0.1%	12.00	Deltamethrin 0.05%	18.00
Dieldrin 0.2%	12.00	Lambdacyhalothrin 0.05%	18.00
Dieldrin 0.4%	12.00	Cyfluthrin 0.15%	18.00
Dieldrin 0.8%	12.00	Etopenprox 0.5%	18.00
Dieldrin 4%	12.00	Control in silicone oil	
Control in risella oil		(PY control)	18.00
(OC control)	12.00		

* Other concentrations available on request (US\$ per box)

** Special instructions for perimiphos-methyl. Please contact USM through e-mail or facsimile.

MOSQUITO (LARVAE) (WHO/VBC/81.807)**Equipment** (as described below)**Price per kit US\$ 33.00**

1 pipette 1 ml, white marking; 1 pipette 1 ml, red marking; 1 pipette 1 ml, yellow marking; 1 pipette 1 ml, black marking; 1 pipette 1 ml, without marking; 5 rubber suction bulbs for above; 3 pipettes (eye dropper); 3 bulbs for eye dropper; 2 wire loops; 1 nylon netting (30 cm²); 1 rubber cement; 1 polyethylene bottle, 50 ml; 1 instruction sheet WHO/VBC/81.807; 20 report forms; 3 log probability papers; 1 label.

Insecticide solutions (in 50 ml bottle)**US\$ per bottle**

malathion 781.25mg/1, 156.25mg/1, 31.25mg/1, 6.25mg/1	2.70
temephos 156.25mg/1, 31.25mg/1, 6.25mg/1, 1.25mg/1	2.70
bromophos 31.25mg/1, 6.25mg/1, 1.25mg/1, 0.25mg/1	2.70
fenitrothion 31.25mg/1, 6.25mg/1, 1.25mg/1, 0.25mg/1	2.70
fenthion 31.25mg/1, 6.25mg/1, 1.25mg/1, 0.25mg/1	2.70
chlorpyrifos 6.25mg/1, 1.25mg/1, 0.25mg/1, 0.05mg/1	2.70

Note: The alcohol used for these solutions and for the control has been denatured by the addition of 2% butanone.

Control alcohol only	2.40
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Complete Test Kit Sets**US\$**

including equipment + 1 complete set of solutions + control	46.40
2 complete sets of solutions + control	59.70
3 complete sets of solutions + control	72.90
4 complete acts of solutions + control	86.20
(Maximum allowed per kit: four complete sets of solutions)	

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (SHIPMENT)

MOSQUITO LARVAE RESISTANCE TO INSECT DEVELOPMENT INHIBITORS
(WHO/VBC/81.812)**Equipment** (as described below)**Price per kit US\$ 27.10**

1 pipette 1 ml, white marking; 1 pipette 1 ml, red marking; 1 pipette 1 ml, yellow marking; 3 rubber suction bulbs for above; 3 pipettes (eye dropper); 3 bulbs for eye dropper; 2 wire loops; 1 nylon netting (30 cm); 1 rubber cement; 1 instruction sheet WHO/VBC/81.812; 10 report forms; 3 log probability papers; 1 label.

Insecticide solutions (in 50 ml bottle)**US\$ per bottle**

methoprene 20mg/1, 4mg/1, 0.8mg/1, 0.16mg/1, 0.032mg/1	2.70
diflubenzuron 20mg/1, 4mg/1, 0.8mg/1, 0.16mg/1, 0.032mg/1	2.70

Note: The alcohol used for these solutions and for the control has been denatured by the addition of 2% butanone.

	US\$ per bottle
Control alcohol only	2.40

Complete Test Kit SetComplete Test Kit (including one complete set of each insecticide and control) **US\$ 59.00**

VOLATILE SOLVENT, SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

5

TEST KIT FOR BIOASSAYS ON WALL SURFACES (VBC/81.5)**Equipment** (as described below)**Price per kit US\$ 41.60**

24 conical chambers; 4 glass aspirator tubes (bent); 4 rubber tubings (60 cm); 4 mouth pieces for rubber tubing; 2 sponge tapes (10 m, 10 mm x 3 mm); 40 upholstery tacks (large head); 2 adhesive tapes (leather), imit cloth, 1 red, 1 green; 1 instruction sheet WHO/VBC/81.5; 1 label.

6

DICHLORVOS AND OTHER PERSISTENT FUMIGANTS (WHO/VBC/75.594)**Equipment** (as described below)**Price per kit US\$ 75.30**

1 roll of aluminium foil, 30 x 30 cm; 10 nylon net cages 3 cm x 15 cm; 1 reel of cotton thread; 1 sewing needle; 10 staples; 1 roll of scotch adhesive tape; 1 forceps, straight; 1 package of 100 filters paper; 1 bottle 50 ml dichlorvos solution (16% m/v) in dioctyl phthalate (DOP); 2 50 ml methyl ethyl ketone (MEK); 2 50 ml MEK/DOP mixture 39:1; 2 1 ml graduated pipette (0.01 ml graduation); 2 rubber bulbs for above; 4 5 ml pipettes, graduated; 2 50 ml bottles with screw caps; 6 10 ml vials with screw caps; 3 10 ccm micropipettes; 3 rubber tubings with mouthpieces for micro-pipettes; 2 plastic tubings; 2 mouth pieces; 2 aspirator tubes, straight; 1 instruction sheet WHO/VBC/75. 594; 10 report forms; 3 log probability papers; 1 label.

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

7

HOUSEFLIES, TSETSE FLIES, STABLEFLIES, BLOWFLIES, ETC.*(WHO/VBC/81.813)***Equipment** (as described below)**Price per kit US\$ 45.20**

60 paper cups; 60 nylon netting 15 cm²; 60 rubber bands; 2 2ml plastic syringes; 2 10ml plastic syringes; 4 needles; 1 microcap pipette; 10 capillary tubes 1 m litre; 1 tube for capillary tube; 1 roll of aluminium foil, 30 m x 30 cm; 1 instruction sheet WHO/VBC/81.813; 20 report forms; 3 log probability papers; 1 label.

***Supplementary equipment for each insecticide purchased**

4 10 ml vials with caps; 1 50 ml glass bottle of butanone (MEK), only bottle; 1 microcap pipette; 3 capillary tubes, 1 m litre; 1 tube for capillary tubes.

Insecticide in butanone (in 50 ml glass bottle)

DDT 4%, lindane 2%, malathion 8%, fenchlorphos 2%, bromophos 2%, carbaryl 5%, diazinon 1%, dieldrin 1%, propoxur 16%, tetrachlorvinphos 2%, dichlorvos 0.5%, dimethoate 0.5%, fenthion 1%, endosulfan 1.5%, trichlorfon 5%, permethrin 0.5%, deltamethrin 0.05%

US\$ per bottle 2.70

Control butanone only

US\$ per bottle 2.40

Complete Test Kit Sets

Test Kit including complementary equipment (the composition of the complementary equipment depends on the number of insecticides requested)

	US\$
1 insecticide + control	54.20
2 insecticides + control	63.30
3 insecticides + control	72.30
4 insecticides + control	81.30
5 insecticides + control	90.40
6 insecticides + control	99.40
7 insecticides + control	108.50
8 insecticides + control	117.50
9 insecticides + control	126.50
10 insecticides + control	135.60

(Maximum allowed per kit: ten)

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

8

REDUVIID BUGS (WHO/VBC/75.587)

Equipment (as described below)

Price per kit US\$ 39.20

6 glass test tubes, 15 cm l, diam int 24 mm; 1 test tube rack, 160 x 100 x 90 mm; 1 black foam plastic mat for above, 160 x 100 x 4 mm; 15 nylon nettings, 7 cm²; 25 rubber bands; 1 forceps, flexible; 1 forceps, normal; 1 holding container ½ kg, made of glass with cover; 1 roll scotch adhesive tape; 1 instruction sheet WHO/VBC/75.587; 20 report forms; 3 log probability papers; 1 label; 40 sheet clean white papers 15 x 12 cm.

Insecticide solutions

	US\$
Dieldrin 0.4%, 0.8%, 1.6%, 4%	12.00
Control in risella oil (OC control)	12.00

9

ADULT BED-BUGS (WHO/VBC/81.809)

Equipment (as described below)

Price per kit US\$ 57.20

24 glass test tubes, 17 cm diam x 16 mm int; 1 test tube rack for 24 tubes 15 x 10 x 9 cm; 1 black foam plastic mat, 10 x 15 x 0.4 cm; 30 nylon nettings, 5 cm²; 50 rubber bands; 1 nylon brush; 1 forceps, straight; 2 fine paint brushes; 1 holding container; 4 pill boxes with net covering; 1 roll scotch adhesive tape; 40 sheet of white papers, 15 x 12 cm; 1 instruction sheet WHO/VBC/ 81.809; 20 report forms; 3 log probability papers; 1 label.

Insecticide impregnated papers

	US\$		US\$
DDT 4%	12.00	Fenitrothion 1%	18.00
Dieldrin 0.8%	12.00	Permethrin 0.75%	18.00
Control in risella oil (OC control)	12.00	Deltamethrin 0.05%	18.00
Malathion 5%	18.00	Control in silicone oil (PY control)	18.00

On special request, with delivery time of at least two months; papers impregnated with insecticides listed below can be supplied for research purposes. However, for such request, there must be a minimum order of 10 boxes per concentration.

Propoxur 0.8%	18.00	Trichlorfon 1%	18.00
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10

ADULT BLACKFLIES, SANDBLIES AND BITING MIDGES (WHO/VBC/81.810)

Equipment (as described below)

Price per kit US\$ 90.40

8 plastic tubes with red dot; 12 plastic tubes with green dot; 10 slide units; 20 discs, fine mesh nylon netting, diam 52 mm; 40 sheet of white papers, 15 x 12 cm; 42 clips (silver); 24 clips (copper); 2 tube aspirators, straight; 2 plastic tubings, 60 cm; 2 mouthpieces; 1 roll of scotch adhesive tape; 1 instruction sheet WHO/VBC/81.810; 20 report forms; 3 log probability papers; 1 label.

Insecticide impregnated papers

	US\$		US\$
DDT 0.25%	12.00	Dieldrin 0.1%	12.00
DDT 0.5%	12.00	Dieldrin 0.2%	12.00
DDT 1%	12.00	Dieldrin 0.4%	12.00
DDT 2%	12.00	Dieldrin 0.8%	12.00
DDT 4%	12.00	Dieldrin 1.6%	12.00
Dieldrin 0.05%	12.00	Control in risella oil (OC control)	12.00

On special request, with delivery time of at least two months; papers impregnated with insecticides listed below can be supplied for research purposes. However, for such request, there must be a minimum order of 10 boxes per concentration.

Dieldrin 4%	12.00
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11

BLACKFLY LARVAE (WHO/VBC/81.811)

Equipment (as described below)

Price per kit US\$ 27.10

1 pipette 1 ml, white marking; 1 pipette 1 ml, red marking; 1 pipette 1 ml, yellow marking; 1 pipette 1 ml, black marking; 1 pipette 1 ml, without marking; 5 rubber suction bulbs for pipettes; 3 pipettes (eye dropper); 3 bulbs for eye dropper; 1 instruction sheet WHO/VBC/81.811; 20 report forms; 3 log probability papers; 1 label; 1 correction for document WHO/VBC/81.811.

Insecticide solutions (in 50 ml bottle)

	US\$ per bottle
DDT 625mg/1, 125mg/1, 25mg/1, 5mg/1, 1mg/1	2.70
methoxychlor 625mg/1, 125mg/1, 25mg/1, 5mg/1, 1mg/1	2.70
chlorpyrifos-methyl 312.5mg/1, 62.5mg/1, 12.5mg/1, 2.5mg/1	2.70
pirimiphos-methyl 312.5mg/1, 62.5mg/1, 12.5mg/1, 2.5mg/1	2.70
temephos 312.5mg/1, 62.5mg/1, 12.5mg/1, 2.5mg/1	2.70
Control alcohol only	2.40

Complete Test Kit Sets

	US\$
Test Kit including 1 complete set of solutions + control	43.10
Test Kit including 2 complete set of solutions + control	59.00
Test Kit including 3 complete set of solutions + control	75.00
Test Kit including 4 complete set of solutions + control	91.00

(Maximum allowed per parcel: four)

Note: The alcohol used for these solutions and for the control has been denatured by the addition of 2% butanone.

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

12

COCKROACHES (WHO/VBC/75.593)**Equipment** (as described below)**Price per kit US\$ 30.00**

4 bottles, glass 50 ml; 4 measuring cylinders, 10 ml; 4 graduated pipettes, 5 ml; 6 glass jars, 500 ml, with cover; 1 tin of petrolatum grease; 1 bottle of petrolatum oil; 1 instruction sheet WHO/VBC/75.593; 10 report forms; 6 log probability papers; 1 label.

Insecticide solutions (in 50 ml glass bottle)

	US\$ per bottle
Dieldrin 0.5%, malathion 1.0%, diazinon 5%, propoxur 1.0%	2.70
Control acetone only	2.40

Complete Test Kit Set

Complete Test Kit (including one bottle of each insecticide and control) **US\$ 43.40**

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

13

LICE (BODY AND HEAD) (WHO/VBC/81.808)**Equipment** (as described below)**Price per kit US\$ 4.00**

Instruction sheet, log probability paper, report form, label.

Insecticide impregnated papers

	US\$		US\$
DDT 4%	12.00	Control in olive oil (OP/C control)	18.00
Dieldrin 0.1%	12.00	Permethrin 0.75%	18.00
Control in risella oil (OC control)	12.00	Deltamethrin 0.05%	18.00
Malathion 5%	18.00	Control in silicone oil (PY control)	18.00
On special request, with delivery time of at least two months; papers impregnated with insecticides listed below can be supplied for research purposes. However, for such request, there must be a minimum order of 10 boxes per concentration.			
Propoxur 0.8%	18.00	Trichlorfon 1%	18.00

FLEAS (WHO/VBC1/81.815)**Equipment** (as described below)**Price per kit US\$ 90.40**

20 white clean sheet of papers (12 x 15 cm); 26 glass test tubes, 17 cm (diam inter 16 mm); 1 test tube rack for 24 tubes, 15 x 10 x 9 cm; 1 black foam plastic mats, 15 x 10 x 0.4 cm; 30 nylon nettings, 5 cm²; 50 rubber bands; 1 tweezers, flat tip; 2 nylon brushes; 1 holding container for fleas, of clear plastic with cover; 1 pair of tongs; 2 rubber suction bulbs (big); 4 flexible tubings, 35 cm l, diameter 4 mm, int 7 mm, ext; 2 nozzles (glass), diam int 4 mm, 15 cm l; 2 aspirators unit; 2 pair of rubber (latex) gloves, size 8½, 9½; 2 roll scotch adhesive tapes, 10 m x 19 mm; 1 instruction sheet WHO/VBC/81.815 + schema; 20 report forms; 3 log probability papers; 1 label.

Insecticide impregnated papers

	US\$		US\$
DDT 1%	12.00	Fenitrothion 1%	18.00
Dieldrin 0.2%	12.00	Propoxur 0.1%	18.00
Control in risella oil (OC control)	12.00	Control in olive oil (OP/C control)	18.00
Malathion 5%	18.00		

On special request, with delivery time of at least two months; papers impregnated with insecticides listed below can be supplied for research purposes. However, for such request, there must be a minimum order of 10 boxes per concentration.

Trichlorfon 1% **US\$ 18.00**

TICKS (ADULTS) (WHO/VBC/81.814)**Equipment** (as described below)**Price per kit US\$ 72.30**

2 syringes, 2ml, 1/10 grad, with needle; 2 syringes, 10 ml with needle; 2 forceps, straight; 25 rubber bands; 25 holding containers (paper cup); 25 nylon nettings, 15 cm²; 5 small vials with caps, 10 ml; 1 self-filling capillary applicator; 1 instruction sheet WHO/VBC/81.814; 20 report forms; 3 log probability papers; 1 label.

Insecticide solutions (in 50 ml glass bottle)

	US\$ per bottle
DDT 10%, dieldrin 5%, malathion 10%, fenthion 5%	2.70
Control butanone only	2.40

Complete Test Kit Set

Test Kit including complementary equipment (the composition of the complementary equipment depends on the number of insecticides requested).

	US\$
1 solution + control	91.60
2 solutions + control	111.00
3 solutions + control	130.10
4 solutions + control	149.40

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

RODENTS (*WHO/VBC/82.843*)**Equipment** (as described below)**Price per kit US\$ 59.00**

1 sieve (ASTM opening 1.70 mm); 20 basic data sheets, report form no 1; 5 summary sheets, report form no 2;
1 instruction sheet WHO/VBC/82.82.843; 1 label; 5 boxes of warfarin (anticoagulant), 500 g.

附件二十三

VCRU 實驗室品質控制

VECTOR CONTROL RESEARCH UNIT

LABORATORY QUALITY CONTROL MANUAL

COPY No : -----

ASSIGNED TO : -----

DATE : -----

THIS COPY IS CONTROLLED/UNCONTROLLED*

(Delete as appropriate)

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A1.0 POLICY AND AUTHORITY**A1.1 Quality Policy**

It is the policy of Vector Control Research Unit to achieve and maintain a high standard Of quality in all aspects of the functioning of the laboratory and to ensure that testing work is Conducted with:

- Technical and commercial integrity
- A known level of accuracy in all tests and measurements
- Careful observation and accurate recording

The company shall offer to all Clients a standard of services consistent with the requirements of this Manual for all services described herein.

This document defines the manner in which this policy shall be fulfilled.

A1.2 Statement of Authority

The Quality Manager is delegated the authority and responsibility for ensuring that the requirements for this document are met and the quality policy is adhered to, The Quality Manager shall be afforded the full support and freedom of action to perform his duties effectively.

The authority and responsibility for the day running of individual laboratories and services is delegated to the appropriate departmental manager.

Signed

Assoc Prof Dr Zairi Jaal
Coordinator

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INTRODUCTION

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SECT N/A

A2.0 Confidentiality

All work carried out at Vector Control Research Unit is confidential to the Company and its customers. However, information may be disclosed to third party accreditation bodies where authorized by the Quality Manager.

A3.0 Scope of Manual

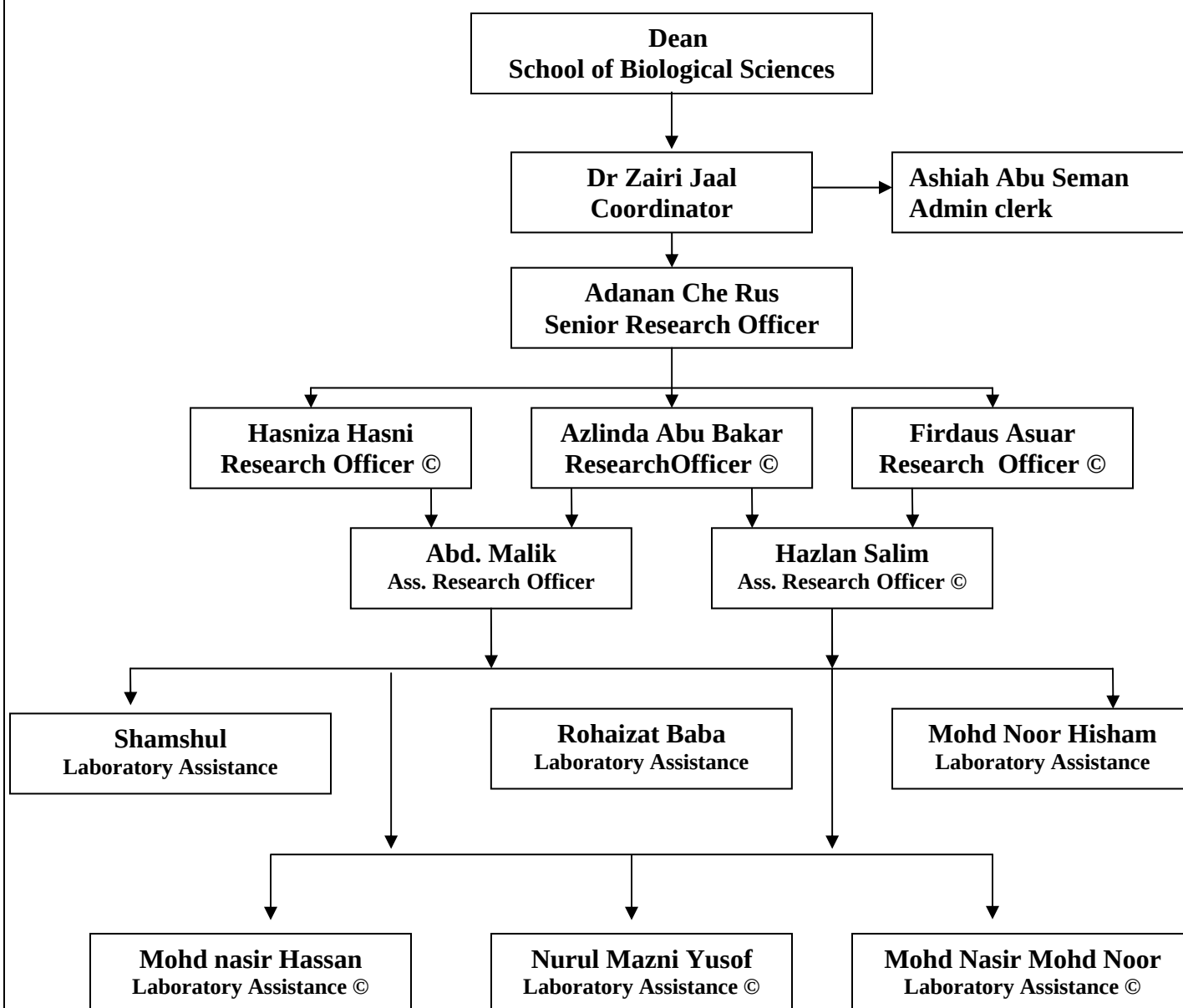
This manual describes the activities performed by the Company to assure compliance with the requirements of the Skim Akreditasi Makmal Malaysia(SAMM) documents S1 and S2 with respect to the performance of the following tests:-

A4.0 Structure of the Quality System

The Quality System operated by the Vector Control Research Unit is structured in three levels as follows:-

- The laboratory Control Manual. This document, outlining the Company's methods which are implemented via laboratory procedures.
- Laboratory Procedures. The departmental documentation of the controls applied to activities concerned with the attainment of quality within each laboratory.
- Test procedures. Specific procedures defining how each test, or group of tests is to be performed.

B2.1 Organisation Chart



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STAFF

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SECT C

C1.0 Staff Policy

All members of staff shall be suitable qualified and experienced in the particular work on which they are directly engaged.

Each manager shall develop and maintain job descriptions for all personnel actually involved in testing operations under their control, other than those given in section C3.0 below. Each job description shall defined responsibilities, qualification and training requirements.

Records of qualifications and training for all personnel for which job descriptions and Terms of reference have been developed which are maintained by the Finance Manager.

In the event that unqualified personnel are required to be employed by the Company, the appropriate manager shall ensure that they are adequately supervised to ensure that there is no risk of jeopardising the standard of quality of service.

Job criteria and job description:-

Coordinator

Criteria –

Description -

Research Officer

Criteria –

Description -

Assistance Research Officer

Criteria –

Description -

Laboratory Assistance

Criteria –

Description -

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SECT D

DOCUMENT CONTROL

D1.0 Laboratory Control Manual

Authority

The Laboratory control manual has been prepared under the authority of the Coordinator of Vector Control Research Unit

Issue

The Quality Manager shall be responsible for the issue of the Laboratory Control Manual and shall ensure that the original document is signed by the Coordinator of Vector Control Research Unit, prior to the issue of copies.

The Quality Manager shall maintain a list of controlled copy holders (i.e. those copies subject to amendment control) and ensure that Manuals are issued to these personnel.

Amendment

Should amendment to the Laboratory Control Manual become necessary, the Quality Manager shall review each draft amendment for compliance with accreditation authority requirements.

Amendment and revisions shall be issued under cover of a 'Document Control Record' which shall be signed by the Coordinator of Vector Control Research Unit in the column provided.

The Quality Manager shall ensure that such amendments/revisions are promptly issued to controlled copy holders.

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SECT D

DOCUMENT CONTROL

D2.0 Laboratory Procedures

Authority

Laboratory Procedures shall be issued under the authority of the Quality Manager. These describe how the requirements of the Laboratory Control Manual are addressed by each function. **A list of these procedures is given in Section M of this Manual.**

Issue

The Quality Manager shall be responsible for the issue of Laboratory Procedures. The Quality Manager shall maintain a list of controlled copy holders (i.e. those subject to amendment control) and shall ensure that such procedures are issued to these personnel.

Amendment

Should amendment to Laboratory Procedures become necessary, the Quality Manager shall review each draft amendment for compliance with the Laboratory Control Manual and accreditation requirements.

Amendments and revisions to Laboratory Procedures shall be issued under cover of a 'Document Control Record'

The Quality Manager shall ensure that such amendments/revisions are promptly issued to controlled copy holders.

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SECT D

DOCUMENT CONTROL

D3.0 Test Procedures

Unless required by, and agreed with the Client, testing shall be carried out to the latest issue of the relevant testing procedure.

The method by which such documents are controlled is given in the appropriate Laboratory Procedure (refer Section M of this document)

E1.0 Purpose of the Audit

The purpose of the audit is to assure the effectiveness and verify the implantation of the quality programme described in this document and to ensure that the Laboratory Control Manual is up to date and reflects current Company Policies.

E2.0 Frequency

A quality system audit shall be performed at least twice per year against a schedule developed by the Quality Manager. The maximum time between audits shall not exceed 9 months. The audit frequency may be increased if necessary at the discretion of the Quality Manager. Reviews of the Quality System are also conducted at frequents intervals

E3.0 Conduct of Audit

The audit shall address each aspect of the Laboratory's work which may have a bearing on quality of service or performance. The audit shall be conducted by personnel nominated by the Quality Manager. This shall ensure that auditor's position and experience are suitable for the conduct of such activities. In the event that as system is identified as not confirming to quality programme documentation or customer requirements, a Corrective Action Request form (CAR: ref. Appendix C) Shall be raised. Corrective Action proposals necessary to remedy the identified non-conformances shall be discussed with the appropriate manager along with the time scale required for their correction and reported on the appropriate section.

E4.0 Reporting

On completion of the audit, the audit team leader (if other than the Quality Manager) shall report findings and corrective action proposals to the Quality Manager, who shall prepare the audit report.

F1.0 Equipment

The laboratory shall undertake only those tests for which it has suitable and adequate equipment. All items of measuring and test equipment shall be allocated a unique identifying code number.

F2.0 Operating and Maintenance Instructions

The Technical Manager shall ensure that operating and maintenance instructions for all equipment are made available for staff. Such instructions include the manufacturer's handbook where available, together with notes on the use and maintenance of the equipment if used for a specific purpose.

F3.0 Equipment Inventory

Records of each item of testing and measuring equipment shall be maintained in an equipment inventory. This inventory shall include the following information:

- Name of equipments
- Manufacturer's name and type identification
- Serial Number
- Current Location
- Details of Maintenance and operating instructions

In the case of measuring equipments, the following information shall also be recorded in the inventory:

- The date of last calibration
- Reference to calibration certificates
- The maximum permitted time between calibrations
- The calibration procedure and/or external calibration laboratory.

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TESTING AND MEASURING EQUIPMENT

PAGE 2/2

SECT F

F4.0 Care and Maintenance of Equipment

Measuring and test equipment shall only be used by staff approved by the Technical Manager. Each item of equipments shall be clearly identified to provide traceability to the equipment inventory. Each item of measuring equipment shall bear, where possible, a calibration label showing the serial number of the equipment and the date that next calibration is due

All equipment shall be properly maintained to ensure protection from corrosion and other causes of deterioration (ref. section F2.0 Above). Where items of measuring and test equipment are to be transported, suitable means of packaging and transportation shall be adopted.

Any item of measuring and test equipment which has been, or is suspected of being, subjected to overloading or mishandling, or which is shown to give suspect results by calibration or use, shall be immediately withdrawn from services and marked such that it cannot be inadvertently used before it has been tested or calibrated.

F5.0 Non-Standard Equipment

Where non-standard equipment is used that is not of an established design, it must be demonstrated that it is suitable and that it meets the required standard of accuracy.

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CALIBRATION

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SECT G

G1.0 Calibration Policy

All measuring instruments and equipment used in the performance of operations defined in Section A3 of this manual are required to be calibrated as necessary in order to provide, where possible, traceability to National or International Measurements Standards. Where the concept of traceability to these standards is not possible, satisfactory evidence or correlation of test procedures shall be provided. The methods by which these requirements are achieved are defined in the appropriate Laboratory Procedures.

G2.0 Calibration Schedule

A calibration schedule is maintained listing the items of equipment and reference numbers held by each laboratory and giving last and next calibration dates. Calibration of equipments shall be carried out at the frequent. This interval may be adjusted on the basic of part results at the discretion of the Quality Manager.

G3.0 Reference Standards

The laboratory shall maintain reference standard equipment for the sole purpose of calibrating working equipment. Such reference standards shall be stored in a locked cupboard, or part of the laboratory with access restricted to representatives authorized by the Technical Manager. Reference standards shall be calibrated by a SAMM accredited laboratory, wherever possible.

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CALIBRATION

PAGE 2/2

SECT G

G4.0 Equipment used in the Laboratory

Calibration of working equipment against reference standards shall be performed in accordance with documented procedures by authorized personnel. Exceptions may be allowed at the discretion of the Quality Manager where it is considered uneconomical or technically unnecessary.

G5.0 Calibration Records

The Technical Manager shall ensure that current calibration records are maintained and that all others are forwarded to the Quality Manager for storage.

TEST METHODS AND PROCEDURES**H1.0 Laboratory Procedures**

Laboratory procedures shall be prepared describing how the requirements of this Manual are addressed by each laboratory. A list of such procedures is given in Section M. Each Laboratory Procedures shall contain the following:

- Title of the procedure and unique reference number
- Issue status/date
- Name of writer of procedure and approval signature
- Purpose and Scope of Procedure
- Responsibilities
- Requirements
- Records to be maintained
- Reference and attachments

The Technical Manager shall be responsible for the preparation and update of such procedures and shall ensure that they accurately reflect laboratory practices.

H2.0 Testing Procedures

Testing Procedures shall be made available to all personnel performing tests, which describe how individual tests are to be conducted. These procedures may take the form of national or international standards, or be specifically developed for the purpose.

H3.0 Non-Standard Testing Procedures

Procedures shall be prepared for tests of a non-standard nature. These procedures shall be fully detailed so that the test can be repeated as closely as possible at a later date and may form part of the report on the test. These procedures shall be approved prior to issue. Responsibilities for approval are defined in Laboratory Procedures (refer Section M of this Manual)

TEST METHODS AND PROCEDURES**H4.0 Contents of Test Procedures**

Testing procedures developed by the Company (as described in Section H2 and H3 above) shall include the following as applicable:

- Identification of the test item or range of test items concerned
- Identification of any specifications appropriate to the test
- Characteristics and design criteria inspected or tested, including any tolerance limits prescribed
- A list of measuring equipment used, specifying range, type, accuracy and the measurement for which it is to be used
- Layout and interconnection of test equipment and test items
- Sequence of operations and verifications
- Environmental and other conditions maintained, including tolerances
- Special instructions for handling, preparation, inspection or testing (e.g. special handling of fragile test items)
- Action taken as a result of a non-conformity or anomalous occurrence or result
- Precautions taken to ensure the safety of personnel and to prevent damage to test items and measuring equipment

H5.0 Conduct of Tests

No testing shall be commenced until a procedure is available, documented and approved.

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TEST METHODS AND PROCEDURES

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SECT N/A

H6.0 Sub-Contracting

As far as is practicable, testing shall not be subcontracted to other laboratories. However, where the need for subcontracting is unavoidable, the Vector Control Research Unit shall ensure that the sub-contractor is competent to perform the services in question.

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ENVIRONMENT

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SECT I

I 1.0 Requirements

The Vector Control Research Unit is concerned about the environment and thus waste chemicals etc. are disposed of safely and properly.

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APP

**HANDLING OF ITEMS TO BE
TESTED/CALIBRATED**

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SECT J

J 1.0 Identification of Items

All items received for test by the laboratory shall be identifiable by means of a serial number or other such unique code. If no identification is apparent on items when they are received, they should be marked with an item number in such a way as not to damage the item. Each receipt shall be logged into the laboratory records system, along with any appropriate comments on the condition of the item

J2.0 Storage

Where test items are to be held at the request of the client or customer, or are required to be withdrawn from test, such items shall be identified and where possible segregated to prevent unauthorised movement or use.

J3.0 Handling during testing

Precautions shall be taken during testing to ensure that the test items are not damaged, and that sample identification is maintained throughout.

J4.0 Disposal of samples

Test samples shall be disposed of in accordance with client requirements for the contract. Where these are required to be retained for a defined period, they shall be securely stored before ultimate disposal.

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SECT K

RECORDS

K 1.0 Records

Records shall be retained to demonstrate the effective functioning of the Quality System and of testing performed by each laboratory.

The following records shall be securely retained for a minimum period of 2 years

- Laboratory Control Manual (including superseded copies)
- Laboratory Procedures (including superseded copies)
- Testing Procedures
- Test Reports
- Copies of test records
- Calibration record
- Audit reports and checklists

Individual records maintained shall be as defined in Laboratory Procedures.

All test results shall be recorded at the time when they are made, and records shall be held secure and in confidence to the Client or his representative.

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TEST REPORTS

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SECT L

L 1.0 Test Reports

A register of all tests performed by the Laboratory shall be retained by the Quality Manager. This shall state the test number, nature of test, Client and date of issue of report.

The test report shall include the following as a minimum:

- Name and Address of Laboratory
- Unique Serial Number
Name and address of Client
- Title of report
- Test method or procedure
- Any deviations, additions to or exclusions from the test specification
- Measurements, examinations and derived results, supported by tables, graphs, sketches and photographs as appropriate and any failures identified
- A statement of uncertainty (where relevant)
- A statement as to whether or not the samples comply with any requirements against which they were assessed
- Signature of the representative accepting technical responsibility for the test report and date of issue

L 2.0 Authorised Signatories

The Technical Manager is responsible for signing test reports

L3.0 Corrections or Additions of Test Reports

Corrections or Additions to a Test Report after issue shall be made only by a further document marked 'Supplement to Test Report Serial Number....' and shall meet the relevant requirements of the preceding paragraphs.

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LP-05	Calibration and Maintenance
LP-06	Test Procedures
LP-07	Administration and Conduct of Tests
LP-08	Records
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