



making a world of difference

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ENVIRONMENTAL HEALTH INSECTICIDES

our range of pest control products
for World Markets



INTRODUCTION

hockley international manufacture and export worldwide a range of pesticides suitable to control insect pests encountered in a wide variety of situations and geographical locations. From mosquito control in Africa to fly control in the United Kingdom, from termite control in Pakistan to crawling insect control in Hong Kong, you will find **hockley** products in use by professional pest controllers, governmental mosquito control programmes, food processors and stockists.

hockley has products suitable for all types of application equipment in a wide range of pack sizes and types.

This booklet give only an outline of the range and applications of our products, more detailed datasheets and labels are available on request.



CRAWLING INSECT CONTROL

Crawling insect pests living and breeding in housing, kitchens, food and grain stores and similar locations cause damage to fixtures, fittings and structures, contaminate and consume food plus bite and irritate humans and pets. They can be difficult to control firstly because they hide in cracks and crevices, under fixed furniture and in pipe ducts and ventilation shafts. Secondly many have thick or scaly skins protecting them or are cautious in habit.

hockley international recommend a two part treatment of any area infested with crawling insects, consisting of an application of a residual insecticide to surfaces followed by space spraying with insecticides that have a "flushing" action to get the insects moving out of hiding places. The following products for our range are suitable:

RESIDUAL INSECTICIDES

Whilst we still supply dusting powders and wettable powders, most users now prefer suspension concentrates.

Dusting Powders : Permost 0.5% Dust (Permethrin based, none Irritant).
We can also supply Cypermethrin, Deltamethrin and Propoxur dusts.

Wettable Powders : Permost 25 WP (Permethrin)
Alphamost 5 WP (Alphacypermethrin)
Deltamost (Deltamethrin)
Bimost 2.5 WP (Bifenthrin)

Suspension Concentrates: Alphamost 6, 10 & 20% SC (Alphacypermethrin)
Deltamost 1, 2.5, 5 & 20% SC (Deltamethrin)
Other strengths can be made to order.

SPACE SPRAY INSECTICIDES

hockley offer a range of combination products incorporating a “knockdown” or flushing agent plus a killing agent and a synergist. These formulations are suitable for application by all types of machines.

Ready to use Product

Mostyn Py-Pro Fly Spray (Natural Pyrethrum, PBO)
Permost UNI (Permethrin, Tetramethrin, PBO)

These products are ready to apply by knapsack or ULV machine without dilution.

Universal Products

Mostyn SRD 13 (Permethrin, Tetramethrin, PBO)
Mostyn BA15 ULV (D-Allethrin, Permethrin, PBO)
Mostyn DTP15 (D-Phenothrin, Permethrin, PBO)

These can be diluted with water and applied by knapsack sprayer or ULV machine.

The following products can be diluted with kerosene and applied by ULV or Thermal Fogging Machine.

Thermal Fogging— Applied by thermal fogging machine after dilution with Kerosene.

Mostyn 8/64 TFC
Mostyn BA15 ULV
Mostyn DTP15

ULV Application—Dilute with kerosene or water and apply by ULV machine.

Mostyn BA15 ULV
Mostyn DTP 15
Mostyn HCT ULV

The “knockdown” agents Natural Pyrethrum, D-Allethrin and Tetramethrin cause crawling insects to become active – a “flushing” action and in movement they pick up a lethal dose of the residual insecticide previously applied. The Piperonyl Butoxide (PBO) is a synergist to give better kill and lessen the possibility of insect resistance build up to the insecticide.

FLYING INSECT CONTROL



Flying insect pests living and breeding internally in housing, kitchens, food and grain stores contaminate and consume food plus irritate and bite humans and pets. Often flying insects lay their eggs in faeces; rotting flesh and food outdoors then enter premises alighting on uncovered food thus spreading bacterial contamination causing gastric illnesses.

Insects like mosquito's, midges and sand flies living and breeding outside besides their biting nuisance are vectors of diseases like Malaria, Leishmaniasis and Chagas disease. International attention is focused at the moment on Malaria reduction throughout the world.

hockley international offer a wide range of insecticides to control flying insects and their larvae including larvicides, attractants, baits, residuals and space sprays in various formulations and packs suitable for application by all types of machines, plus products for mosquito net treatment.

Attractants

Alphamost Plus Residual insecticide based on Alphacypermethrin containing the house fly (*musca domestica*) pheromone as attractant.

Baits

Mostyn Fly Bait Sugar based fly bait containing Azamethiphos as killing agent.

Larvicides

See special section on Larvicides.

Residual Insecticides

Interior residual spraying is a recommended method of WHO for mosquito control. The inside walls, roof or ceiling can be sprayed giving a long lasting killing effect for alighting insects.

The products are listed the same as those listed for crawling insects.

Space Spray Insecticide

hockley international offer a wide range of carbamate, organophosphorus and pyrethroid insecticides for space spraying indoors and outdoors.

Ready to use Pyrethroids

Mostyn Py-Pro Fly Spray (Natural Pyrethrum, PBO)
Permost Uni (Permethrin, Tetramethrin, PBO)

These products are ready to apply by knapsack or ULV machine without dilution.

Water Dilutable Pyrethroids

Permethrin 25% & 50% EC
Deltamethrin 2.5% EC
Alphacypermethrin 5% EC
Bifenthrin 5% EC
Cypermethrin 10% & 25% EC

These products are designed to be diluted with water only and applied by knapsack or similar high volume sprayer

Organophosphorus & Carbamate Insecticides

Formulated to local requirements we offer such products as:

Fenitrothion 96% ULV
Fenitrothion 50 EC
Dichlorvos 50 & 100 EC
Pirimiphos-Methyl 25 & 50 EC
Propoxur 20 EC



Other strengths and combinations with pyrethroids can be made to order.

Universal Products

Mostyn SRD13 (Permethrin, Tetramethrin, PBO)
Mostyn BA15 ULV (D-Allethrin, Permethrin, PBO)
Mostyn DTP 15 (D-Phenothrin, Permethrin, PBO)
Mostyn HCT 7 ULV (Cypermethrin, Tetramethrin)

These can be diluted with water and applied by knapsack sprayer or ULV machine, or can be diluted with kerosene and applied by ULV or Thermal Fogging Machine.

Thermal Fogging—Applied by thermal fogging machine after dilution with kerosene.

Mostyn 8/64 TFC
Mostyn BA15 ULV
Mostyn DTP 15

ULV Application—Dilute with kerosene or water and apply by ULV machine.

Mostyn BA 15 ULV
Mostyn DTP 15 ULV
Mostyn HCT ULV

The incorporated “knockdown” agents D-Allethrin and Tetramethrin give a quick effect noticeable to bystanders whilst the killing agent takes some time to take effect. The Piperonyl Butoxide (PBO) is a synergist to boost the action of the pyrethroid giving a better kill and reducing the possibility of insect resistance build up.

LARVICIDES

By controlling fly and mosquito larvae we can break the insect life cycle preventing larvae becoming flying adults able to breed. **hockley** offer products based on Temephos, Diflubenzuron and Cyromazine. Larvicides are best used with a simultaneous application of a space spray insecticide to control adult flies.



Temephos

This molecule is particularly effective against mosquito larvae and is recommended by WHO for use in mosquito control programmes. Mosquitoes lay their eggs in pools of static water ranging from water trapped in old tyres, drums, bins, to ponds, small pools, swamps and marshes. Eggs can survive drought, hatching when suitable wet conditions occur. The larvae pass through three stages of growth, feeding on microorganisms before producing an adult. A dosage of Temephos as low as 1 part in 500,000 parts of water is normally lethal.

Temephos is formulated as a coated sand granule at 1 or 2% concentration for ease of application by householders to rain water butts and by unskilled labour to larger areas of still water.

For large operations around swamps and marshland then Temephos is supplied as a 50% emulsifiable concentrate (EC) for dilution with water and application by knapsack sprayer.

Cyromazine

This molecule is effective against all fly larvae and finds wide application in controlling flies in animal housing. Animals such as cows, horses, pigs, goats, sheep and poultry are often intensively reared indoors resulting in an accommodation of faeces, spilt food and drinking water. This mixture is an ideal place for flies to lay their eggs and their larvae to develop. Cyromazine 2% water dispersible granules can be applied directly to the wet floor or mixed with water and sprayed. We also offer the 50% wettable powder.

Cyromazine is also useful to control larvae in waste collection areas and tips.

Diflubenzuron

This molecule is a potent insect growth regulator inhibiting the production of chitin preventing the development of fly and mosquito larvae into adults. Formulations are solvent free, most popular is a 48% suspension concentrate but other strengths are available. Coated granules at 2 to 5% can also be produced to order.

Diflubenzuron is suitable for control of larvae in public health situations, animal housing and on rubbish tips.

TERMITE CONTROL

In many parts of the world Termites and various wood infesting beetles pose a threat to buildings, underground services (electronic and telecommunication cables) and crops. Termites are social insects living underground and feeding on wood and vegetable matter. They are powerful tunnellers in their food foraging activities capable of cutting through concrete constructions and causing serious damage to wooden buildings.



Termiticides can be applied prior to construction under foundations, as impregnated barrier trenches around buildings and by actual treatment of building materials. Trenches for cables can be treated before and during back filling. Foraging termites are killed slowly by contact whilst the contaminated food they carry back is regurgitated by larvae and consumed by all, resulting in a complete kill of the colony. Treatment during construction to prevent infestation is preferable, however existing buildings with termite problems can be treated with the same products.

Products to protect crops are detailed in our Agricultural literature.

hockley international offers three different chemical types of termite control insecticides thus offering a wide choice for different markets and preferences.

Pyrethroids

Permite based on Permethrin as active ingredient usually as a 30% emulsifiable concentrate with other concentration to order. Low irritancy to operators or inhabitants of existing buildings requiring treatment.

Fenmite based on Fenvalerate as active ingredient typically as a 10 or 20% emulsifiable concentrate. Products based on other pyrethroids can be supplied to order.

Organophosphorus

Termifos based on Chlorpyrifos-Ethyl as active ingredient usually as a 20%, 40% or 48% emulsifiable concentrate. Chlorpyrifos based products are widely used throughout countries with termite problems both to protect buildings and crops.

Phenylpyrazoles

Fiprokill is the newest addition to our range of termiticides based on the active ingredient Fipronil formulated as a 2.5% EC. Effective against insects showing resistance to other insecticides based on pyrethroids, carbamate or organophosphorus insecticides.



MOSQUITO CONTROL

Mosquitoes carrying Malaria constitute the greatest threat to public health in areas where they are endemic. In other areas mosquito species that do not carry disease are a nuisance causing irritating bites and therefore control in tourist areas is essential. The World Health Organisation together with many other NGO's, charitable organisations and governments has major programmes running to reduce Malaria deaths.

This major insect pest can be controlled in various ways:

Using [larvicides](#) to break the lifecycle by killing larvae before they develop into adults see the section on larvicides .

Using [space spray insecticides](#) applied by knapsack, thermal fogging or ULV machine (cold fogging) carried by hand, truck or aircraft. See the section on flying insect control for suitable products.

[Applying residual insecticides](#) to the interior surfaces of housing (IRS programmes). See the section on Residual Spraying for suitable products from our range.

[Treating bed nets](#) with a residual insecticide to kill alighting mosquitoes attracted by the "human bait". Whilst nets are often supplied ready treated with long life insecticides many without are still in use or being supplied without. Traditional highly alkaline soaps used for net washing in many countries destroy the insecticide coating. Untreated or recently washed nets can be treated with **hockley** products such as:

Permost – Permethrin based EC formulations available in various strengths from 12% upto 50%. and Alphamost and Alcypernet – water based SC formulation containing Alphacypermethrin as active available with resin sticking agent and UV absorber to protect from light.

We can also supply treatments based on other actives like Deltamethrin. Products are available in individual sachets of a size suitable to treat individual nets, bottles with built in measure or large packs for bulk treatment.

[Treating tents, uniforms and clothing](#) worn by people working in areas where mosquitoes are a problem, for example Army, Police, Doctors, Aid Workers. With Permost Concentrates – Permethrin based formulations none irritating to skin suitable to treat washable fabrics.



FOOD & GRAIN STORES, FOOD FACTORIES

All warehouses, factories, farms, kitchens, commodity stores in fact anywhere food or other vegetable produce like tobacco is stored in bulk are a target for both flying and crawling insect pests. Beetles hide in roof spaces, cracks and crevices. Flying insects enter through doors, windows and vents. Insect pests arriving in or on new deliveries are a constant threat. Effective insect control is essential to prevent losses and reduction in quality and value.

These problems can be dealt with in several ways:

Residual spraying of walls, roof spaces and floors of clean and empty areas with a long lasting residual insecticide. Alphamost and Deltamost pyrethroid SC, suspension concentrates are ideal being easy to measure, mix and apply with virtually no odour.

Space spraying already stocked buildings ideally with use of a ULV or Thermal Fogging machine, applying one of our synergised space spray insecticides such as Mostyn BA15, DTP 15, see page.....

Fumigating silos, stocks of bagged grain and similar with Aluminium Phosphide tablets available from **hockley international**; but only suitable for application by trained professional pest controllers.

Treating incoming bulk or sacks with a residual or a vapour action insecticide or better a combination of a residual insecticide with a vapour phase acting product. Suitable products from the **hockley** range include:

Permethrin and Deltamethrin dusts at various strengths.

Pirimiphos-Methyl Dust and emulsifiable concentrate.

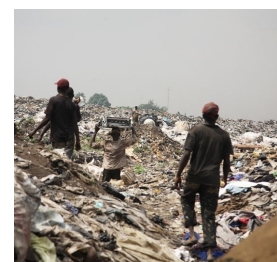
Mixtures of Permethrin and Pirimiphos-Methyl in various combinations as emulsifiable concentrates.

Effective rodent control is also essential for maintaining hygiene in food and grain stores.

In tobacco stores if the use of insecticides is restricted or prohibited by customers then most species attacking stored produce can be controlled by pheromone traps specific to the species of insects, such products are available from **hockley international** .

REFUSE SITES

All sites for collecting, storing or processing domestic and industrial waste that contains any vegetable or animal matter are an immediate attraction to flies. Eggs are laid in rotting waste so the larvae have food. Large untreated waste dumps in warm weather exhibit continuous hatching of new flies. If allowed to get out of control the large fly nurseries on waste sites can result in numerous complaints from nearby residents and pressure from Environmental Authorities to take action.



We recommend the application of the following **hockley** products:

Space spraying by knapsack sprayer applying Mostyn SRD 13, Mostyn DTP 15 or Mostyn BA 15 diluted with water.

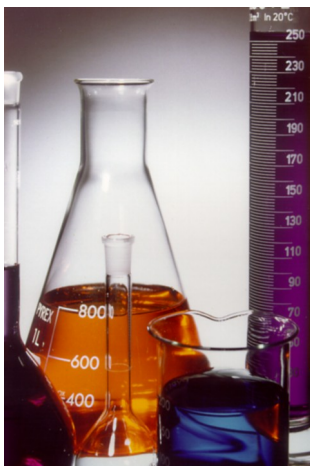
Space spraying by ULV or Thermal Fogging Machine using Mostyn SRD 13, Mostyn DTP 15 ULV or Mostyn BA 15 ULV diluted with kerosene – this is the best method. Application will be required two or three times per day according to fly hatching rates.

Surface spraying with a residual insecticide, Alphamost being very cost effective in use.

Larvicide treatment with Cyromazine granules if waste is wet or with Cyromazine Granules or wettable powder dispersed in water to control the fly larvae on drier waste. Diflubenzuron is also very effective for this purpose. Since these products are of low hazard and none irritating they are useful to apply on the surface of storage areas where rubbish skips or receptacles are stationed.

Use of **hockley** rodenticides will also be required in some waste holding areas.

FORMULATIONS



hockley international hold large stocks of active ingredients, adjuvants and other raw materials for the formulation of Environmental Health insecticides. In addition we hold large stocks of packaging and this, together with 'in house' label printing for short runs enables **hockley** to offer a quick and flexible response to your needs supplying large or small lots in many sizes of packaging, your label or ours. We can formulate different strengths and various combinations according to your needs. Our technical and registration departments will be happy to give advice, tailor make products to your needs and provide registration documentation. Our logistics section has many years experience in the shipment of hazardous cargo by land, sea or air.

APPLICATION EQUIPMENT

For many export markets **hockley** is able to supply spraying equipment ranging from 2 litre upto 20 litre capacity, hand sprayers, knapsack sprayers and motorised sprayers. Both sprayers and cartons can be printed with logo's, local address and other details. Spares are readily available and sprayers can be tested and certified to various International Standards, please ask for our brochure.

hockley can also recommend suppliers and give advice on the purchase of other application equipment such as ULV machines and Thermal Fogging machines.



UNITED KINGDOM MARKET

A separate booklet is available upon request covering our range of HSE registered insecticides for environmental health and pest control in the United Kingdom.

LITERATURE & LABELS

Detailed literature, Material Safety Data Sheets and specimen labels are available upon request for all products mentioned in this leaflet.



hockley international are an independent, privately owned UK based company with 30 years experience in the manufacture, formulation, packing and exporting of pesticides. We supply over 90 countries and enjoy a reputation for competitively priced high quality products and good service.



hockley international offer environmental health professionals, mosquito control programmes and professional pest controllers worldwide a versatile range of insecticides, larvicides and termicides. Space spray insecticides with quick knock down and kill, residual insecticides for surface spraying, larvicides for fly and mosquito larvae and termite control products.



hockley international holds large stocks of raw materials and this coupled with flexible production allows a rapid response to urgent requirements. Our in house registrations department can assist in designing labels and getting local approval for sale.



hockley international has wide experience in overseas business, tenders and projects for Malaria control and agricultural development. With agents and distributors in many countries we can offer a world wide service.



hockley international making a world of difference in environmental health.



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