



Residual insecticide

Permost CS

A controlled-release insecticide for the control of flying and crawling insects for use in public hygiene, food storage, agricultural premises and stables.

Permethrin 25.25% w/v (250 g/L)

What is Permost CS?

Permost CS is a specialised microencapsulated insecticide containing the active ingredient permethrin. This water-based formulation contains a range of microcapsules of varying sizes which facilitates controlled release with long residual activity of up to 60 days. The active ingredient is encapsulated in the solution, which reduces operator exposure and offers low mammalian toxicity. Due to these factors, Permost CS can be applied in a wide range of environments.

Benefits of Permost CS:

- **Broad-spectrum insect control**
- **Approved for use in a wide range of environments**
- **Residual control – reducing call-backs**
- **Enhanced performance on difficult surfaces**
- **Measuring bottle – ensuring optimum operator safety**
- **Non-staining**
- **Minimal odour**

Application Environments:

- **Domestic/commercial/industrial premises**
- **Public offices, municipal buildings**
- **Rubbish/municipal tips, amenity areas such as public parks**
- **Hospitals (excluding occupied wards)**
- **Military barracks**
- **Food handling areas/premises, restaurants, food retailers**
- **Raw material stores (excluding grain stores), empty grain silos, stores and farm buildings**
- **Empty dairies**
- **Animal and avian houses**
- **Aircrafts, ships, buses, boats, trains and trucks**

Not suitable for direct application to animals.

Active Ingredient:

Permethrin 25.25% w/v (250 g/L)

Mode of Action:

Permethrin interferes with sodium channels to disrupt the function of neurons causing muscles to spasm, culminating in paralysis and death.

Target Pests:

- **Ants**
- **Cockroaches**
- **Earwigs**
- **Fleas**
- **Ticks**
- **Silverfish**
- **Bed bugs**
- **Beetles**
- **Red grain beetles**
- **Flies**
- **Mosquitoes**
- **Clothes moths**
- **Grain weevils**
- **Flour beetles**
- **Darkling beetles**
- **Red mites**
- **Warehouse food moths**
- **Hide beetles**
- **Saw-toothed beetles**

Formulation

What is microencapsulation?

Microencapsulation is the technique of carrying an active ingredient inside a polymer membrane of varying thickness. Rather than total immediate release upon application, microencapsulation allows the active's release to be controlled over a period of time - prolonging the effectiveness of the formulation, reducing odour and significantly enhancing operator safety.



Capsules vary by two factors:

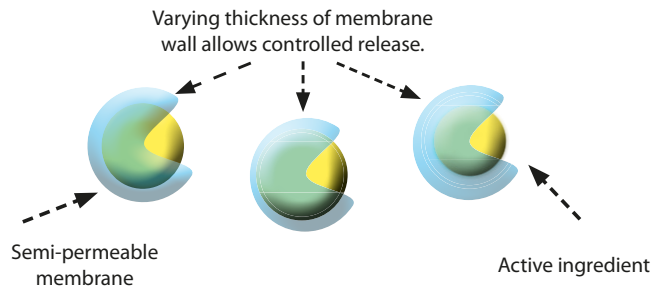
1. Size (ranging from 10 to 110 nanometres)
2. Membrane thickness

How Does Microencapsulation Work?

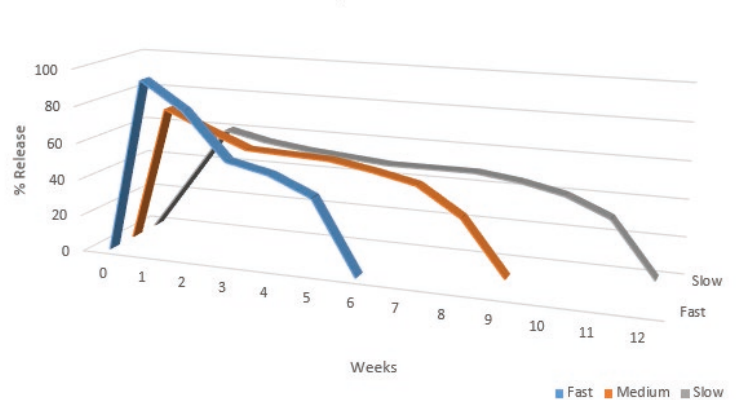
The varying size and wall thickness of the capsules allows the active to be released by:

1. Rupture of thinner membranes on application, allowing the immediate release of the active
2. Diffusion through the pores in the capsule wall

Controlled diffusion is achieved by using capsules with varying membrane wall thicknesses. Allowing fast, medium and slow release of the active.



Microencapsulation release



Controlled Release:

Capsule suspension (CS) products are manufactured to contain a mixture of microcapsules that differ in wall thickness, allowing controlled release.

	Fast release	Medium release	Slow release
Wall thickness	16.5 nm	60 nm	102 nm
Release time	0.5 - 1 week	2 - 4 weeks	6 - 8 weeks
Residual activity*	up to 5 weeks	up to 8 weeks	up to 12 weeks

*Residual activity depends on environmental conditions:

Application Recommendations:

Surface and space spray, spot, crack and crevice treatment

	Rate	Water	Area
Surface spray, spot, crack and crevice	Light infestation – 25 ml Heavy infestation – 50 ml	5 L	100 m ²
Spray all infested areas giving special attention to cracks, crevices, dead spaces and harbourages. The product is suitable for application to hard porous, soft porous and non-porous surfaces.			
Hot fogging	100 ml	N/A	500 m ³
Cold fogging	100 ml	5 L	500 m ³
Spray into the air around the areas to be treated paying particular attention to sites where insects rest and breed or harbourages.			

Permost CS can be used as a barrier application in and around buildings. For domestic premises, product should only be used as a crack and crevice treatment.

Hockley International

Permost CS

Contains:
permethrin 25%



Permex 22 E

Contains:
permethrin
12.36%, +
tetramethrin
1.64% + PBO
6.40%



Piretrox

Contains:
natural
pyrethrum 1.25%



Permost Uni Fly Spray

Contains:
permethrin
0.25%
+ tetramethrin
0.1%
+ PBO 0.3%



Tetrapiu

Contains:
permethrin
0.15% +
tetramethrin
0.06% + PBO
0.3%



Piretrox PU

Contains:
natural
pyrethrum 0.3%
+ PBO 3%



Py-Pro Super

Contains:
natural
pyrethrum 0.3%
+ PBO 3%



SoFast

Contains:
imidacloprid
0.5% +
(z)-9-tricosene



HokoEx

Contains:
cyromazine 2%



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Hockley International Limited, Hockley House, 3 Longstone Road, Ashbrook Office Park, Manchester, M22 5LB,
United Kingdom