



TECHNICAL DATA BULLETIN

PRODUCT TECHNICAL INFORMATION AND APPLICATIONS

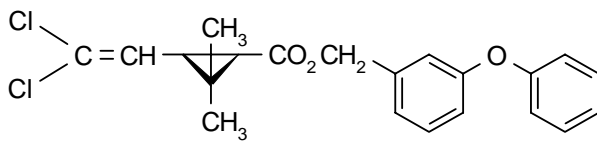
PERMENE[®] 100EC

"Permethrin 100 gm/L (EC)"

1. INTRODUCTION:

Permene 100EC is an emulsifiable concentrate insecticide formulation. It contains 100 g/L of the active ingredient Permethrin technical. It is used for the control of wide range of insect pests in public health, animal health, industrial fields, disease vector control and termite control.

2. ACTIVE INGREDIENT:

| | |
|---|--|
| Common name | Permethrin |
| Chemical Group | Pyrethroid |
| CAS Registry No. | 52645-53-1 |
| Molecular Formula | C ₂₁ H ₂₀ Cl ₂ O ₃ |
| Chemical Name (IUPAC) | 3-phenoxybenzyl (1 <i>RS</i> ,3 <i>RS</i> ;1 <i>RS</i> ,3 <i>SR</i>)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate <i>Roth</i> : 3-phenoxybenzyl (1 <i>RS</i>)- <i>cis-trans</i> -3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate |
| Structural Formula |  |
| Molecular weight | 391.3 |
| Vapour Pressure | <i>cis</i> - 0.0025 mPa <i>trans</i> - 0.0015 mPa (both @ 20 °C) |
| K _{ow} log P | 6.1 (20 °C) |
| Acute _{oral} LD ₅₀ , Male rat | 430-4000 mg/kg |



3. PHYSIOCHEMICAL PROPERTIES OF THE PRODUCT:

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|--------------------------------|---|
| Assay "Permethrin" | 100 ± 6 g/L |
| Appearance | Clear yellow liquid free of visible impurities. |
| Odour | Aromatic |
| Density | 0.915 ± 0.006 g/ml |
| Flash point | >40°C |
| Solubility in H ₂ O | Emulsifiable |
| Water Content | < 3.0 g/Kg |

4. MODE OF ACTION:

Permene 100EC is based on the synthetic pyrethroid Permethrin. It is a broad spectrum non-systemic insecticide with contact and stomach action. It is fast acting and has a slight repellent effect. Permene 100EC has good residual action, since sunlight does not break it down rapidly, compared with other synthetic pyrethroids.

5. USES:

Permene 100EC is used for the control of insect pests in public health programmes, household and industrial areas as well as animal shelters. Susceptible pests are mosquitoes, domestic flies, ants, ticks, lice, fleas, black-flies, tsetse fly, termites, wood boring beetles, silver-fish, bed-bugs, cockroaches, crickets and other undesirable arthropods.

6. COMPATIBILITY:

Permene 100EC is compatible with most other insecticides



7. APPLICATION:

Permene 100EC is applied as a spray after being diluted with water, diesel or kerosene. The choice of diluent depends on the application method and the target pest.

The following table can be used as a guide for the application of **Permene 100EC**

| Insects | Rate of Use | Method of Use |
|---|---|---|
| Flying & Crawling Insects Files Mosquitoes, Bug, Cockroach, Lice & Flea in houses & outdoors | Residual Spray: Mix 1 part into 50 parts of water | Spray the mixture in the house yards, walls, garbage pins, trees, shrubs & streets |
| | Fogging: Mix 1 part into 200 parts of carrier | |
| | (ULV) Applications: Mix 1 part into 5 parts of carrier | Spray mosquitoes at night time & houseflies at morning time, when the insects are active. |
| Mosquitoes Larvae | Mix 1 part into 2000 parts of Water (Spray 100 L solution/ha) | Spray swamps & stagnant pools, don't use the treated water for animals |

8. PHYTOXICITY:

Permene 100EC is non-toxic to most plant species when used as recommended. However, injury has occurred on certain ornamentals such as salvia, dieffenbachia, ferns and some varieties of roses if spray directly.



9. HANDLING, STORAGE AND TRANSPORTATION:

When handling **Permene** 100EC operation personnel should wear impermeable boots, clean overall, appropriate gloves, hats and face mask. All protective clothing should be washed immediately after use. Hands and other exposed skin should be washed before eating, drinking or smoking.

Permene 100EC should be transported and stored in clearly labeled rigid and leak-proof containers, away from containers of food, feed and drink. Storage should be under lock and key and secure from access by unauthorized persons and children.

| | |
|---------------|------|
| Hazard Class | 6.1 |
| Packing Group | III |
| UN Number | 3351 |

10. OTHER INFORMATION

Buyer assumes all responsibility for safety and use not in accordance with the product label instructions