



TECHNICAL DATA BULLETIN

PRODUCT TECHNICAL INFORMATION AND APPLICATIONS

LARVATE[®] 10SG

“TEMEPHOS 10g/Kg%”

1. INTRODUCTION:

Larvate 10SG is granular formulation of Temephos. It contains 10 g/Kg of the active ingredient Temephos in granular form with other necessary formulants. It is used for mosquito larvae control in swamps and water pools.

2. ACTIVE INGREDIENT IDENTITY:

Common name

Temephos

Chemical Group

Organophosphorus

CAS Registry No.

3383 - 96 - 8

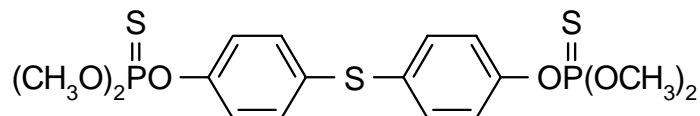
Molecular Formula

C₁₆ H₂₀ O₆ P₂ S₃

Chemical Name IUPAC

O,O,O',O'-tetramethyl O,O'-thiodi-*p*-phenylene bis(phosphorothioate); O,O,O',O'-tetramethyl O,O'-thiodi-*p*-phenylene diphosphorothioate

Structural Formula



Molecular weight

466.5

K_{ow} log P

4.91

Acute oral LD₅₀, Male Rat

4204 mg/kg

3. PHYSIOCHEMICAL PROPERTIES:

Larvate 10 SG conforms to the WHO specification WHO/SIF/40.R1 approved 25 September 1989.

Temephos contents:

9 – 12 g / Kg

Appearance:

Red free flowing granules

Density

1.3 – 1.6 Kg/L

Odour:

Faint amine odour



4. **MODE OF ACTION:**

Larvate 10 SG is a non-systemic organophosphorous insecticide. It is used as a selective insecticide with a long residual activity. It is a cholinesterase inhibitor.

5. **USES:**

Larvate 10 SG is used for the control of Larvae of mosquito (*Anopheles spp.*, *Aedes spp.*, *Culex spp.*), midges, sand flies and *Simulium spp.* in ponds, lakes, marches and swamps.

Larvate 10 SG is most effective on Larvae, rather than the adults. It is widely used in mosquito abatement programs.

6. **APPLICATIONS:**

Larvate 10 SG is applied to the surface of ponds, marshes, swamps and tidal areas. It is also applied to the ground around the edges of such areas.

Larvate 10 SG is applied at the rate of 5 – 10 Kg/ha depending in the intensity of infestation and water condition and impurities.

7. **COMPATIBILITY:**

Larvate 10 SG should not be mixed with other compounds. It is incompatible with alkaline materials.

8. **TOXICITY:**

Product:

LD₅₀, Oral Rat > 10,000 mg/Kg

The Active Ingredient:

Acute Mammalian Toxicity:

LD ₅₀ , Oral Rat (male)	4,204 mg/Kg
LD ₅₀ , Oral Rat (Female)	> 10,000 mg/Kg
LD ₅₀ , precutaneous, Rat	> 4,000 mg/Kg

Birds:

Dietary LC ₅₀ , (5 d) for mallard duck	1,200 mg/Kg diet
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Fish:

LC ₅₀ , for rainbow trout	31.8 mg/L
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Bees:

LD ₅₀ Topical:	1.55 µg/bee.
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It should be noted that Temephos may injure or kill young shrimp or crabs in treated tidal areas.

9. TOXICITY CLASSIFICATION:

According to WHO Temephos technical has been classified as a material, which is unlikely to present acute hazard in normal use.

10. HANDLING, STORAGE AND TRANSPORTATION:

Adequate washing facilities should be provided at all times during handling. Eating, drinking or smoking should be prohibited during handling and before washing after handling.

When opening the container and when mixing, care should be taken to avoid contact with eyes and mouth.

The product should be kept in its original sealed container in a cool dry ventilated store away from children foodstuffs, animal feed and their containers.

The material should be transported in clearly labeled leak-proof containers.