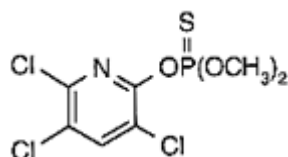


Technical Data Sheet

CHEMICAL IDENTIFICATION

| | |
|----------------------------|--|
| Common Name: | CHLORPYRIPHOS METHYL |
| Chemical Family: | Organo Phosphorous Compound - Insecticide |
| IUPAC: | 0,0 Dimethyl 0 (3, 5, 6 Trichloro 2-Pyridinyl) Phosphorothioate |
| CAS Number: | 5598-13-0 |
| Empirical Formula: | C ₇ H ₇ Cl ₃ NO ₃ PS |
| Purity: | 94% |
| Structural Formula: | |



PHYSICAL AND CHEMICAL CHARACTERISTICS

| | |
|--|--|
| Molecular Weight: | 322.5 |
| Appearance: | Solid Crystalline |
| Colour: | White |
| Odour: | Slight Mercaptan odour |
| Melting Point: | 45.5 to 46.50C |
| Boiling Point: | It Is Not Stable At Boiling Point |
| Density at 200C (of 20EC): | 1.392 |
| Vapour Pressure: | 4.2 x 10 ⁻⁵ mm Hg at 25°C, 1. 8 x 10 ⁻⁴ mm Hg at 35°C |
| Volatility: | Non - Volatile |
| Absorption Spectrum: | Stable to UV Radiation |
| Solubility in water: | Poor solubility in water 2.6mg/1 at 24°C |
| Solubility in Organic Solvents: | benzene 5200 g/kg acetone 6400 g/kg chloroform 3500 g/kg Hexane 230 g/kg methanol 300 g/kg diethyl ether 4800 g/kg n-Octanol/water |
| Partition Coefficient: | P _{ow} log P 4.699 - 4.707 |
| Stability: | |
| In water: | Stable in neutral & weakly acidic media Hydrolyzed by strong alkali |

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| | |
|------------------------------|------------------------------------|
| In temperature: | Not stable after the boiling range |
| Flash Point: | 182°C (COC) |
| Explosiveness: | None explosive |
| Oxidising Properties: | Shows NO oxidising properties |
| Corrosive Properties: | Non corrosive |
| pH: | Acidic conditions (PH 4-6) |
| Viscosity: | Solid, hence not applicable |

USES

Chlorpyrifos methyl is effective against rice stem borer, aphids, cutworms, plant and leaf hoppers, mole crickets moths and stored grain pests. In public health programmes, Chlorpyrifos methyl is considered as a larvicide for oncocerciasis control and as a general mosquito larvicide for out door surface water that is liable to be used for human and animal consumption. Chlorpyrifos methyl is non phytotoxic at recommended rates.

Use Pattern : Up to four applications per season depending on formulation and pest on rice, cotton, tobacco and on vegetables up to 2 kg a.i./ha.

TOXICOLOGICAL INFORMATION

A number of toxicological studies considered by WHO, others in support of registration applications in many countries, shows Chlorpyrifos methyl to be one of the safest insecticide.

The main toxicity values of Chlorpyrifos methyl are:

ACUTE TOXICITY

Acute toxicity

| | |
|--------------------------|--------------------|
| - LD50 Oral (rat): | > 3000 mg/kg |
| - LD50 dermal (rabbit): | 2000 mg/kg b.w. |
| - LC50 inhalation (rat): | > 0.67 mg/lit/4 hr |

Irritancy

| | |
|-------------------|-----------------------------|
| - Eye irritancy: | Non-irritant to rabbit eye |
| - Skin irritancy: | Non-irritant to rabbit skin |

ENVIRONMENTAL INFORMATION

| | |
|-----------------------------------|-------------------------|
| LC50 fish (Rainbow trout): | 0.3mg/l (96h) |
| LC50 Daphnia Magna: | 0.016 - 0.025 ppm (24h) |

TOXICITY TOWARDS USEFUL INSECTS :

Toxic to the honeybees (LD₅₀ -contact- 0.38 µg 1 bee), when exposed to direct treatment or residue on plants shortly after application. Do not apply to plants when bees are foraging.

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PACKAGING DETAILS

Chlorpyrifos methyl is supplied in the packaging described below:
250 kg PE Lined MS Drum (UN approved)

LABELLING DETAILS

In accordance with the EEC norms relevant to the classification and the labelling of dangerous goods, Chlorpyrifos methyl is labelled with the following symbols and phrases:

| | |
|-----------------------|------------------------------------|
| Symbol: | T |
| Risk phrase: | R ~ 22,51,57 |
| Safety advice: | S - 1,2,4,13,15,24,35,36,37,38,60. |

The statements made in this Data Sheet are, to the best of our knowledge, as accurate as possible, are given only for information and are without guarantee or responsibility on our part regarding the various laws or patents in connection with the use of the product. Further information is available on request.