

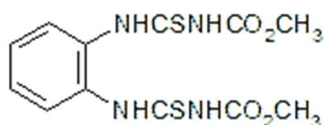


Products Name	Thiophanate-methyl 98PCT TC	Batch Number	D1802
Invoice No	17	Date of Manufacture	17.07.2020
Invoice of Date	24.07.2020	Date of Expiry	16.07.2022
		Net Weight	3.000 KGS

SPECIFICATION OF TECHNICAL THIOPHANATE-METHYL

1. ACTIVE INGREDIENT

- a) **Chemical Name** : dimethyl [1,2-phenylenebis(iminocarbonothioyl)]bis[carbamate]
- b) **Common Name** : Thiophanate-methyl
- c) **Empirical Formula** : C₁₂H₁₄N₄O₄S₂
- d) **Structural Formula** :



- e) **Molecular Weight**: 342.4
 - f) **CAS number**: 23564-05-8
- ### 2. PHYSICAL AND CHEMICAL PROPERTIES OF TECHNICAL MATERIAL
- a) **Color**: Colorless crystals
 - b) **Physical state**: Crystals
 - c) **Intensity or specific gravity**: 1.45 (20 °C)
 - d) **Viscosity**: N/A
 - e) **Solubility in water**: In water 24.6 mg/l (25°C)
 - f) **Solubility in organic solvent**: In acetone 58.1, cyclohexanone 43, methanol 29.2, chloroform 26.2, acetonitrile 24.4, ethyl acetate 11.9 (all in g/kg, 23 °C) Slightly soluble in hexane
 - g) **Vapour pressure**: 0.0095 mPa (25 °C)
 - h) **Stability (Oxidation and thermal)**: Stable in neutral, aqueous solution at room temperature. Stable to air and sunlight. Quite stable in acidic solution at room temperature; unstable in alkaline solution; DT50 24.5 h (pH 9, 22 °C). Formulated product is stable ≥ 2 y below 50 °C.
 - i) **Data on storage stability**: Under normal storage conditions in original non-opened containers, no change of its physical, chemical and biological properties will occur for at least two years.
- ### 3. INFORMATION ABOUT PATENT STATUS
- : Non patent.
- ### 4. PURITY (%)
- : 98%
- ### 5. IMPURITIES OVER 0.1 %:
- 2,3-diaminophenazine max.: 0.0005 g/kg
 - 2-amino-3-hydroxyphenazine max.: 0.0005 g/kg
 - Unknown materials max.: 19.999 g/kg

Note: Impurities have no toxicological concern.

For Insecticides India Limited



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