

# **Material Safety Data Sheet**

Section 1 Identification

Product identifier: Thiophanate-methyl 500 SC

fungicide, Suspension concentrate(SC)

Recommended Use of the chemical and restrictions on use Fungicide for agricultural/commercial use

Section 2 Hazard(s) Identification Classification

Acute Toxicity-Oral: Hazard category 4

Acute Toxicity-Inhalation: Hazard category 4 Germ Cell Mutangenicity: Hazard category 2

Hazardous to the Aquatic Environment-Long-Term Hazard: Hazard category 1

Signal word Warning

Hazard statement

H302 Harmful if swallowed

H332 Harmful if inhaled

H341 Suspected of causing genetic defects.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Symbol







**Precautionary statement Prevention** 

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273. Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

WILLOWOOD GROUP OFFICES WORLD-WIDE

USA HONG KONG INDIA AFRICA CHINA CENTRAL AMERICA





ISO 9001:2008

P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell P308+P313 IF exposed or concerned: Get medical advice/attention.

P391 Collect spillage.

Storage

P405 Store locked up. Disposal

P501 Dispose of contents/container in accordance with local/national/international regulation

Section 3 Composition/Information on Ingredients

Chemical name CAS No. Concentration Active

Thiophanate-methyl 23564-05-8 42.6 w/w% (41.3 w/w% a.i.) (500 g/L)

Sodium alkylnaphthalenesulfonate, formaldehyde condensate 68425-94-5 1.7 w/w% (20 g/L)

Additives (surfactants and others) -12.1 w/w%

Water Balance

### Section 4 First-Aid Measures

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact: Remove contaminated clothing and shoes. Wash with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Ingestion Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed Not available

Indication of immediate medical attention and special treatment needed, if necessary No specific antidote. Supportive care. Treatment based on judgment of physician in response to symptoms of patient

## Section 5 Fire-Fighting Measures

**HONG KONG** 

**USA** 

Suitable (and unsuitable) extinguishing media: This product is non-combustible.

Suitable extinguishing media: Dry chemicals, carbon dioxide, alcohol foam or water spray.

Unsuitable extinguishing media: Not known

Specific hazards arising from the chemical: Thermal decomposition or combustion may produce carbon oxides, nitrogen oxides and sulphur dioxide.

Special protective equipment and precautions for fire-fighters:

Protective equipment: Wear self-contained breathing apparatus and complete personal protective equipment. Precautions for fire-fighters Move containers away from fire areas if it can be done without risk. If impossible to remove containers from fire zone, cool them with water spray. Collect separately contaminated extinguishing water, do not allow to reach sewage or effluent

WILLOWOOD GROUP OFFICES WORLD-WIDE

INDIA AFRICA CHINA CENTRAL AMERICA





ISO 9001:2008

system. Dispose of fire debris and contaminated extinguishing water in according with official regulations.

Section 6 Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Refer to Section 8 for personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing the mist or vapor.

Methods and materials for containment and cleaning up

Prevent form entering into drains, ditches or rivers because this product is harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Sweep up, place in a closed container and hold for waste disposal.

Ventricle area, and wash spill site with soap and plenty of water after material pick-up is complete. Obey Federal, State or local regulations for health and environment protection to discharge treated water to sea, river or lakes etc.

# Section 7 Handling and Storage

Precautions for safe handling

Refer to Section 8 for personal protective equipment. Keep out of the reach of children. Avoid contact with skin, eyes and clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing mist/vapours/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only in a well ventilated areas, or chemical fume hood. Keep away from food, drink and animal feeding stuffs. Avoid release to the environment. IF exposed or concerned: Get medical advice/attention. Conditions for safe storage

Keep container tightly closed. Store in a cool, dry, well-ventilated place. Keep away from foods, drink and animal feeding stuffs. Keep away from direct sunlight, oxidizing agents. Store locked up.

Section 8 Exposure Controls/Personal protection

Control parameters Not applicable.

Appropriate engineering controls: Use general and/or local exhaust ventilation to control vapor/mist. Provide safety showers and eyewashes.

Individual protection measures, such as personal protective equipment

Respiratory Suitable respirator for organic vapor

Gloves Gloves such as rubber or polyvinyl chloride.

Eye/Face Safety goggles. Footwear Boots

Working wear with long sleeves.

Others None

WILLOWOOD GROUP OFFICES WORLD-WIDE

**CENTRAL AMERICA** 



**CHINA** 



ISO 9001:2008

Section 9 Physical and Chemical Properties Appearance Light beige-tan liquid Faint specific odor Relative density 1.17-1.23 g/cm3 (20 $^{\circ}$ C) pH 5-7 (1% in water) Melting Point Not applicable. Boiling Point Not available. Vapor Density (air=1) Not applicable.

Section 10 Stability and Reactivity

Reactivity This product is stable in normal handling and storing condition.

Chemical Stability Unstable x If unstable, condition to avoid unstable reaction. Oxidizing agents, strong acids or bases. Stable

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid High temperature.

Incompatible Materials No substance known that should be avoided.

Hazardous decomposition Products No hazardous reaction and product known.

Section 11. Toxicological Information

Acute Toxicity Oral (rat): LD50 1000 mg/kg(female) Dermal (rat): LD50 > 2000 mg/kg (male, female) Inhalation (rat): LC50 2.25 mg/L(4hr) (male, female) Skin corrosion/irritation Dermal (rabbit): Not irritant Serious eye damage/irritation Eyes (rabbit): Not irritant Respiratory or skin sensitization Dermal (guinea pig):

Negative Respiratory: Not available

Section12 Ecological Information Ecotoxicity

Acute Toxicity to Fish: LC50 (Oncorhynchus mykiss): > 100 mg/L(96hr) Acute Toxicity for Daphnia: EC50(Daphnia magna): 11 mg/L(48hr)

Toxicity to Daphnia: NOEC 0.078 mg/L (21 days, as Thiophanate-methyl WDG)

Acute Toxicity for Alga: ErC50: 88.3 mg/L(72hr) NOEC: 10 mg/L

Persistence and degradability Bio-degradability: Not good degradability (Thiophanate-Methyl).

Bioaccumulative potential Since the value of log Po/w is low, it is estimated that bio-

accumulative potential is low (Thiophanate-Methyl).

Mobility in soil Not available.

WILLOWOOD GROUP OFFICES WORLD-WIDE

**CENTRAL AMERICA** MANUFACTURING FACILITY: SHREEJI PESTICIDES LTD (A subsidiary of Willowood chemicals (Pvt) Ltd, India), Block 69/P, Village-



**CHINA** 



ISO 9001:2008

#### Section 13 DISPOSAL CONSIDERATIONS

Product Disposal On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals.

Container Disposal Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Section 14 Transport Information

International marine transportation(IMDG)

UN No. 3082

Class 9

Proper shipping name Environmentally Hazardous Substance, liquid, n. o. s. (Thiophanatemethyl mixture)

Packing Group III

Marin pollutant Applicable

**DOT Regulations** 

Proper Shipping Name Environmentally Hazardous Substance, liquid, n. o. s. (Thiophanatemethyl mixture)

Hazard Class 9

Identification No. UN 3082

Packing Group: III

Emergency Response Guide No. 171

ICAO/IATA Dangerous Goods Regulations

UN No. 3082

Class 9

Proper shipping name Environmentally Hazardous Substance, liquid, n. o. s. (Thiophanatemethyl mixture)

Packing Group III Environmentally hazardous Applicable Special precautions for use Not applicable

WILLOWOOD GROUP OFFICES WORLD-WIDE





ISO 9001:2008

Section 15 Regulatory Information

Label Information NFPA Rating: Health; 1 Flammability; 0 Instability; 0

## Section 16 Other Information

The information and recommendations container herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with other materials or in any process.

WILLOWOOD GROUP OFFICES WORLD-WIDE



**CHINA**