SAFETY DATA SHEET

Metalaxyl-M 350 g/L FS

Product name	Metalaxyl-M 350 g/L FS	**Format**	GHS 16-section
Supplier	Shanghai Bosman Industrial Co., Limited	**Version**	2.1 (GHS reformat, tabular Composition)

1. IDENTIFICATION OF THE CHEMICAL AND SUPPLIER

Product name	Metalaxyl-M 350 g/L FS
Supplier	**Shanghai Bosman Industrial Co., Limited** No. 1611, North Sichuan Road, Hongkou District, Shanghai 200080, P.R. China
Telephone / Fax	+86 21 6306 5878 E-mail: info@bosmangroup.com
24-hour emergency phone	+86 21 6356 6528
Poisons Information Centre	Call your national Poisons Information Centre or local emergency number (e.g. 120 in China, 112 in Europe, 000 in Australia/New Zealand) in case of poisoning.

2. HAZARD IDENTIFICATION

Hazardous Nature:
Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)



corrosion
Serious Eye Damage/Irritation 1 H318 Causes serious eye damage.
Acute Toxicity (Oral) 4 H302 Harmful if swallowed.
Signal Word Danger
Hazard Statements
H302 Harmful if swallowed.
H318 Causes serious eye damage.
Precautionary Statements
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection / face protection.
P301+P312 °F SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338 °F IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P330 Rinse mouth.
P501 Dispose of contents/container in accordance with local/regional/national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:	
CAS: 70630-17-0 Metalaxyl-M (ISO)	38%
Serious Eye Damage/Irritation 1, H318;	Acute Toxicity (Oral) 4, H302

(Contd. on page 2)

(Contd. of page 1)	
CAS: 34590-94-8 (2-methoxymethylethoxy)propanol	10 - 20%

Flammable Liquids 4, H227		
CAS: 4719-04-4	2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	<0.05%

Acute Toxicity (Oral) 4, H302; Skin Sensitisation 1, H317

Non Hazardous Components:	
CAS: 57-55-6 1,2-Propanediol	10 - 20%

4. FIRST-AID MEASURES

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.
Skin Contact:
In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.
Eye Contact:
In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek medical attention if symptoms occur.
Ingestion:
If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.
Symptoms Caused by Exposure:
Eye Contact: 86-21-63065878
Ingestion: Harmful if swallowed.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
Water fog or fine spray, alcohol resistant foam, dry chemical or carbon dioxide. Water spray and alcohol resistant foam are recommended for large fires.
Do not use full water jet as it may spread the fire.
Specific Hazards Arising from the Chemical:
Hazardous combustion products include toxic or irritating vapours and thick smoke.
Product is not flammable, but contains combustible ingredients.
Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.
Special Protective Equipment and Precautions for Fire Fighters:
When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots.
Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.
Environmental Precautions:
In the event of a major spill, prevent spillage from entering drains or water courses.
(Contd. on page 3)

(Contd. of page 2)
Methods and Materials for Containment and Cleaning Up:
Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal. Decontaminate spill area by washing with detergent and water.

7. HANDLING AND STORAGE

Precautions for Safe Handling:
Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.
Take precautionary measures against static discharge. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or

using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.
Conditions for Safe Storage:
Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from heat, sparks, open flames, hot surfaces and direct sunlight. Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards:
CAS: 57-55-6 1,2-Propanediol
WES TWA: 474* 10** mg/m³, 150* ppm
*vapour&particluates;**particulates only
CAS: 34590-94-8 (2-methoxymethylethoxy)propanol
WES TWA: 308 mg/m³, 50 ppm
Sk
Engineering Controls:
Maintain air concentration below occupational exposure standards, providing adequate ventilation.
Respiratory Protection:
Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.
Skin Protection:
Elbow-length PVC gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.
Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.
Eye and Face Protection:
Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:
Form: Liquid
Colour: Red
(Contd. on page 4)

(Contd. of page 3)
Odour: Weak, uncharacteristic
Odour Threshold: No information available
pH-Value at 20 °C: 5 - 8 (1% w/v)
Melting point/freezing point: No information available
Initial Boiling Point/Boiling Range: >90 °C
Flash Point: >103 °C (Closed Cup)
Flammability: Product is not flammable.
Auto-ignition Temperature: 435 °C
Decomposition Temperature: No information available
Explosion Limits:
Lower: Not determined
Upper: Not determined.
Vapour Pressure at 25 °C: 0.0033 Pa (Metalaxyl-M)
Density at 20 °C: 1.1 g/cm³
Vapour Density: No information available
Evaporation Rate: No information available
Solubility in Water: Miscible

Partition Coefficient (n-octanol/water): No information available
Viscosity: No information available

10. STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.
Chemical Stability: Stable at ambient temperature and under normal conditions of use.
Conditions to Avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.
Incompatible Materials: No further relevant information available.
Hazardous Decomposition Products: Toxic or irritating vapours and thick smoke.

11. TOXICOLOGICAL INFORMATION

Toxicity:
LD■■/LC■■ Values Relevant for Classification:
Oral LD■■ 1000 - <3000 mg/kg (rat)
Dermal LD■■ >4000 mg/kg (rabbit)
CAS: 57-55-6 1,2-Propanediol
Oral LD■■ 2,000 mg/kg (rat)
Dermal LD■■ 20,800 mg/kg (rabbit)
CAS: 34590-94-8 (2-methoxymethylethoxy)propanol
Oral LD■■ 5,135 mg/kg (rat)
Dermal LD■■ >19,000 mg/kg (rabbit)
CAS: 2611-82-7 trisodium 1-(1-naphthylazo)-2-hydroxynaphthalene-4',6,8-trisulphonate
Oral LD■■ >8,000 mg/kg (rat)
Acute Health Effects
Inhalation: No adverse health effects expected.
Skin: No adverse health effects expected.
Eye: Causes serious eye damage.
Ingestion: Harmful if swallowed.
(Contd. on page 5)

(Contd. of page 4)
Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.
Serious Eye Damage / Irritation: Causes serious eye damage.
Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.
Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.
Carcinogenicity: This product does NOT contain any
Reproductive Toxicity: Based on classification principles, the classification criteria are not met.
Specific Target Organ Toxicity (STOT) - Single Exposure:
Based on classification principles, the classification criteria are not met.
Specific Target Organ Toxicity (STOT) - Repeated Exposure:
Based on classification principles, the classification criteria are not met.
Aspiration Hazard: Based on classification principles, the classification criteria are not met.
Chronic Health Effects: No information available
Existing Conditions Aggravated by Exposure: No information available
Additional toxicological information:
The Australian Acceptable Daily Intake (ADI) for metalaxyl for a human is 0.03 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOAEL of 3 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.
(Ref: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', 2018).

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Aquatic toxicity:
LC■■/96 h >100 mg/l (trout)
EC■■/48 h 54.4 mg/l (daphnia)
EC■■/72 h >100 mg/l (scenedesmus subspicatus)

Persistence and Degradability:
Not readily biodegradable, but is not considered persistent in soil or water.
Metalaxyl-M has a half-lie in soil of <50 days.
Bioaccumulative Potential: Low potential for bioaccumulation.
Mobility in Soil: Ranges from low to high mobility depending on the soil type.
Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.
Special Precautions for Landfill or Incineration:
Please consult your state Land Waste Management Authority for more information.

14. TRANSPORT INFORMATION

UN Number Not regulated
Proper Shipping Name Not regulated
(Contd. on page 6)
46.0
according to WHS Regulations
Printing date 08.05.2018 Revision: 08.05.2018
Product Name: Shanghai Bosman Industrial Co., Limited
(Contd. of page 5)
Dangerous Goods Class Not regulated
Packing Group: Not regulated

15. REGULATORY INFORMATION

Comply with all applicable local, state and national regulations.

16. OTHER INFORMATION

Emergency contact: In an emergency call your local emergency number (e.g. 000 in Australia, 112 in Europe, 120 in China). For poisoning advice call the national Poisons Information Centre. Supplier 24-hour line: +86 21 6356 6528 (Shanghai Bosman Industrial Co., Limited).

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Prepared by: MSDS.COM.AU Pty Ltd .au
Abbreviations and acronyms:
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC■■: Lethal concentration, 50 percent
LD■■: Lethal dose, 50 percent
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)
Flammable Liquids 4: Flammable liquids – Category 4
Acute Toxicity (Oral) 4: Acute toxicity – Category 4
Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1
Skin Sensitisation 1: Skin sensitisation, Hazard Category 1
Disclaimer
This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - February 2016”
The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. 4Farmers Australia Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.
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— End of Safety Data Sheet —

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