



SAFETY DATA SHEET

METALAXYL 8 % + MANCOZEB 64 % WP

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Issued: 20/01/2020
Revised date: --
Ref: IIL/MAT 72 WP

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY /UNDERTAKING

Product name: METALAXYL 8 % + MANCOZEB 64 % WP
Use / description of product: Use as an agricultural/horticultural fungicide

Company name: **INDOFIL INDUSTRIES LIMITED**
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2. HAZARDS IDENTIFICATION

2.1. Classification of the mixture:

Classification according to GHS

Health Hazard: Acute Inhalation Cat.4; Env'n irritation Cat.2A Repr. Cat. 2

Environmental Hazard: Aquatic acute Cat.1; Chronic Aquatic Cate.1

2.2. Label elements:

Hazard pictograms:



GHS 07



GHS 08



GHS 09

Signal word: WARNING

Hazard Statements:

H319: Causes serious eye irritation.

H332: Harmful if inhaled

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long-lasting effects.

Precautionary Statements:

Prevention

P201: Obtain special instructions before use. P261:

Avoid breathing dust/spray.

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

Response

P301+P312: IF SWALLOWED: Immediately call a POISON CENTER/Doctor, if you feel unwell.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P337+ P313: If eye irritation persists: Get medical advice/attention.



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Storage:

P391: Collect spillage.

P405: Store locked up

P501: Dispose of contents/container to in accordance with local and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Hazardous ingredients:

Material	Identifiers	%
Metalaxyl (on basis of 100% ai)	CAS: 57837-19-1	8.0
Mancozeb (on basis of 100% ai)	CAS: 8018-01-7	64.0
Inert ingredients	--	Q.S. to make 100%

4. FIRST AID MEASURES

4.1 Description of first aid measures

GENERAL:	If medical advice is needed, have product container or label at hand. If exposed or concerned: Get medical advice/attention.
INGESTION:	If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting. Do not attempt to give any solid or liquid by mouth to an unconscious or semi-conscious person.
INHALATION:	If inhaled, Remove victim to fresh air. Call a doctor immediately.
SKIN CONTACT:	In case of skin contact, Remove contaminated clothing. Wash immediately with plenty of soap and water.
EYE CONTACT:	In case of contact with eyes, immediately flush eyes with plenty of water & seek medical advice.
ANTIDOTE:	No specific antidote. Treat symptomatically treatment.

4.2 Most important symptoms and effects, both acute and delayed:

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed:

Notes to physician: Basic aid, decontamination, symptomatic treatment. See Section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media:

SUITABLE EXTINGUISHING MEDIA:	Water spray. Carbon dioxide. Dry chemical powder. Alcohol or polymer foam.
UNSUITABLE EXTINGUISHING MEDIA:	No unsuitable media.



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5.2 Special hazards arising from the substance or mixture:

HAZARDS FROM THE SUBSTANCE OR MIXTURE

Exposure to fire may form flammable/explosive air-dust mixture

HAZARDOUS COMBUSTION PRODUCTS

In combustion emits toxic fumes of sulphur oxides, nitrogen oxides and carbon dioxide / carbon monoxide.

5.3 Advice for fire fighters:

SPECIAL FIRE-FIGHTING PROCEDURES:

If area is not too heavily exposed to fire, and if conditions permit, let fire burn itself out, since water may increase the contamination hazard.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:

Wear self-contained breathing apparatus.
Run-Off from fire will be a pollution hazard.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

No action shall be taken involving any personal risk without suitable training. Keep unnecessary and unprotected personnel off from entering. Do not touch or walk through spilt material. Avoid dust formation and breathing of dust. Put on appropriate personal protective equipment (see Sect. 8)

6.2 Environmental precautions:

Do not discharge into drains or rivers. Contain the spillage using bunding. Eliminate all sources of ignition. Do not create dust. Knock down dust with water spray. Avoid dispersal of spilt material into drains, waterways, sewage. Inform relevant authorities if the product has caused environmental pollution.

6.3 Methods and materials for containment and cleaning up:

Ensure there is sufficient ventilation of the area. Transfer to a closable, labeled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

6.4 Reference to other sections:

See Section 1 for emergency contact information
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information

7. HANDLING AND STORAGE

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling:

HANDLING: Ensure good ventilation at the workplace. Smoking is forbidden. When handling, do not eat or drink. Use non-sparking tools. Open and handle receptacle with care.

7.2 Conditions for safe storage, including any incompatibilities:

STORAGE: Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Keep in original containers, out of reach of children. Never allow the product to become wet during storage. This may lead to chemical changes, which will reduce the effectiveness as a fungicide and could create flammable vapours.

7.3 Specific end use(s):

Use as an agricultural/horticultural fungicide



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

Recommended Monitoring Procedures:

If this product contains ingredients with exposure limits, personal workplace atmosphere or biological monitoring may be required to determine the effectiveness of risk minimization measures.

8.2 Exposure Controls:

Risk management measures:

According to Good Agricultural Practice.

Personal protection measures:

RESPIRATORY PROTECTION: Wear dual cartridge respirator for dusts and mists. In the case of intensive or long-term exposure use a self-contained respiratory protective device.

HAND PROTECTION: Protective gloves (recommended material e.g.: Natural Latex, Chloropren, Nitrile, Vilton, Butyl, permeation time: 480 min, penetration level: 3) Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

EYE PROTECTION: Protective goggles.

SKIN/BODY PROTECTION: Mixers and loaders must wear overalls, protective goggles and chemical-resistant apron. Applicators and other handlers must wear overalls, goggles and waterproof gloves. Any clothing or other absorbent material which has been drenched or heavily contaminated must be discarded.

HYGIENE MEASURES: Wash hands thoroughly after use. Avoid contact with skin and eyes. Remove contaminated clothing and wash thoroughly before reuse.

Environmental exposure controls:

Emissions from work process equipment should be checked to ensure they comply with the requirements of local regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

PHYSICAL STATE:	Homogenous powder free from hard lumps
COLOUR:	Yellow
ODOUR:	Bitter.
pH:	7.1
DENSITY:	0.454 ± 0.0001 g/mL (Tap)
SUSPENSIBILITY:	Min. 75 % w/w
WETTABILITY	2.65 sec

9.2 Other Information: No additional information



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10. STABILITY AND REACTIVITY

- 10.1 Reactivity:** No specific test data related to reactivity available for this product.
- 10.2 Chemical stability:** Stable if stored under recommended storage and handling conditions.
- 10.3 Possibility of hazardous reactions:** Avoid contact with acids and moisture whilst in storage.
- 10.4 Conditions to avoid:** Avoid contact with acids and moisture.
- 10.5 Incompatible materials:** No specific data.
- 10.6 Hazardous decomposition products:**

Elevated temperature or free water promotes decomposition, which may cause spontaneous combustion. In combustion emits toxic fumes of Sulphur oxides, nitrogen oxides and carbon dioxide / carbon monoxide..

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Acute toxicity:

Oral Ld_{50} (rat):	5,000 mg/kg body weight
Dermal (rat) Ld_{50} :	>2,000 mg/kg body weight
Inhalation Lc_{50} (rat):	>2.98 mg/L air
Skin irritation (rabbit):	Non irritating
Eye irritation (rabbit):	Irritant to Eyes
Sensitization (guinea pig):	Non sensitizer

12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Aquatic toxicity:

Fish (<i>Rainbow trout</i>) LC_{50}	2.10 mg/L (96h)
Algae EC_{50}	5.09 mg/L (72h)
Daphnia magna EC_{50}	0.53 mg/L (48 h)
Bees:	Material is non toxic to bees
Oral LD_{50}	>100 µg/bee
Contact LD_{50}	>100 µg/bee
Earthworm LD_{50}	> 960 mg/kg (14 d)

- 12.2 Persistence and degradability:** Not available.
- 12.3 Bioaccumulative potential:** Not available.
- 12.4 Mobility in soil:** Not available.
- 12.5 Results of PBT and vPvB assessment:** PBT: No
vPvB: No.
- 12.6 Other adverse effects:** Not available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Dispose of under controlled conditions in accordance with all local and national laws and regulations. Do not puncture or burn after use. Do not contaminate water, food or feed by disposal



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14. TRANSPORT INFORMATION

Land transport (ADR/RID)

UN number: 3077
UN proper shipping name: Environmentally hazardous substance, solid, N.O.S. (Fungicide, contains Mancozeb (ISO) and Metalaxyl)
Transport hazard class(es): 9
Packing group: III

Marine transport

UN number: 3077
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Fungicide, containing Mancozeb (ISO) and Metalaxyl)
Transport hazard class(es): 9
Packing group: III

Limited quantity: 5 kg / 30 kg
EmS: F-A, S-F

Air transport

UN number: 3077
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Fungicide, containing Mancozeb (ISO) and Metalaxyl)
Transport hazard class(es): 9
Packing group: III

Limited quantity Passenger: Y956 /30 kg
IATA-packaging instructions – Passenger: 956
IATA-max. Quantity – Passenger: 400 kg
IATA-packaging instructions – Cargo: 956
IATA-max. quantity – Cargo: 400 kg

Environmental hazards

Dangerous for the environment: -

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable

15.2 Chemical Safety Assessment :

CSR not relevant as actives are covered by Plant Protection Directive (PPD) 91/414/EEC

15.3 Inventory listings AUSTRALIA: AICS (Australian Inventory of Chemical Substances)

All components are listed on AICS, or are exempt.



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16. OTHER INFORMATION

Abbreviations and acronyms

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road

RID = Regulations concerning the International Transport of Dangerous Goods by Rail

ADN = European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

IBC = Code International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

CAS = Chemical Abstract Service

ISO = International Organization for Standardization

PBT = Persistent Bioaccumulative and Toxic

vPvB = Very Persistent and very Bio-accumulative

bw = body weight

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

NOEC = No Observed Effect Concentration

NOEL= No Observed Effect Level

NOAEL = No Observed Adverse Effect Level

DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The company, Indofil Industries Limited shall not be held liable for any damage resulting from handling or from contact with the above product.