



SHANGHAI BOSMAN INDUSTRIAL CO., LTD.

Add: Room1804, No.1611, North Sichuan Road, Hongkou District, Shanghai, P.R. China.

Tel: +86 21 63065878 | **Fax:** +86 21 63065878 | **E-mail:** info@bosmangroup.com

Website: www.bosmanagrochem.net

Version; 1.0 Issue date: Oct. 10, 2022

MATERIAL SAFETY DATA SHEET OF

MANCOZEB + CYMOXANIL 72% WP

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Supplier: Shanghai Bosman Industrial Co., Ltd

Street address: No. 1611, North Sichuan Road, Hongkou, Shanghai R.P. China

Tel: + 86 21 63065878

Fax: + 86 21 63065878

Product name: Mancozeb + Cymoxanil 72% WP

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation Type: Wettable powder (WP)

Composition:

INGREDIENT	CAS NO	PROPORTION
Mancozeb	8018-01-7	64% min.
Cymoxanil	57966 - 95 - 7	8% min.
other	Not available	Up to 100%

Other ingredients determined not to be hazardous

3. HAZARDS IDENTIFICATION

Most important hazards: May cause sensitization by skin contact. Irritating to eyes.

Specific hazards: None known.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Call a physician immediately.

Skin contact: Wash off immediately with soap and plenty of water. Take off all contaminated clothing immediately. Consult a physician.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician for severe cases.

Version; 1.0 Issue date: Oct. 10, 2022

Note to physician: No specific antidote is known. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: water spray, dry chemical, carbon dioxide (CO₂)

Extinguishing media which must not be used for safety reasons: high volume water jet (contamination risk)

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

Specific methods: (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers / tanks with spray water.

6. ACCIDENT RELEASE MEASURES

Personal precautions: Withdrawal combustion sources, sufficient respiratory ventilation/protection, fight against dusts, prevention to skin and eyes contact.

Environmental precautions: Avoid sewage, surface water, ground water and soil contamination. Retain spilled liquids and collect them with sand or other absorbent inert material (sepiolite). Absorbent inert material stocks have to be sufficient to face reasonably predictable spillage. Keep sewers from potential spillage to minimize pollution hazards. Do not throw washing waters into sewers. Contact competent authorities when a situation cannot be controlled rapidly and efficiently. In the case of spillage into water, stop dispersion of the product with adequate barrier.

Method for cleaning up: Collect contaminated products on the surface concerned, transfer to closed drums before sending in a specialized incineration treatment center. Clean contaminated floors and objects thoroughly with water and detergents. Incinerate or take to a special waste disposal site in accordance with local authority regulations.

7. HANDLING AND STORAGE

Storage: Do not store this material near food, feed or drinking water. Store in a well ventilated area. Store in a dry area. Do not allow this product to become wet or overheated in storage; decomposition, impaired activity or fire may result.

Handling: Do not handle material near food, feed or drinking water. Avoid high concentrations of dust in air and accumulation of dust on equipment. An airborne dust of this material can create a dust explosion. When handling and processing this material local exhaust ventilation may be required to control dust and

Version; 1.0 Issue date: Oct. 10, 2022

reduce exposure to vapors.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guideline.

Personal protective equipment (PPE):

Respiratory protection: Breathing protection if breathable aerosols/dust are formed. Breathing protection if dusts are formed. Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection: Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection: Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: solid (wettable powder)

Colour: yellow

Odour: none

pH: (25 ° C) (at 10 g/l H₂O) 7,6

Decomposition temperature: Decomposes before melting.

Flash point: Not applicable

Explosive properties: no data available

Vapour pressure: negligible

Relative density: no data available

Solubility: Water solubility dispersible

10. STABILITY AND REACTIVITY

Stability: Stable up to approximately 190°C. No decomposition if stored and applied as directed.

Version; 1.0 Issue date: Oct. 10, 2022

Materials to avoid: Incompatible with acids.

Hazardous decomposition products: hydrogen sulphide, carbon disulphide, carbon oxides, sulphur oxides, nitrogen oxides.

Further information: During processing, dust may form explosive mixture in air. Decomposition by contact with water may generate vapours which can be ignited by heat or open flame.

11. TOXICOLOGICAL INFORMATION

The following information is for the active ingredient, Mancozeb:

Acute toxicity:

Acute oral toxicity: LD50 for rats >5000 mg/kg.

Acute percutaneous toxicity: LD50 for rats >10 000, rabbits >5000 mg/kg.

Skin and eye irritation: No irritation to skin (rabbits); eye irritation Category III (EPA classification).

Skin sensitization: No dermal sensitisation in Buehler test; may cause dermal sensitisation in guinea pig maximisation test.

Inhalation: LC50 (4 h) for rats >5.14 mg/l.

Chronic toxicity:

NOEL Chronic NOAEL (2 y) for rats 4.8 mg/kg b.w. daily. Ethylenethiourea chronic NOAEL (2 y) for rats 0.37 mg/kg b.w. daily. Below parentally toxic levels, mancozeb was observed to have no effect on reproduction, on neonatal survival, or on growth or development.

The following information is for the active ingredient, Cymoxainil:

Acute toxicity:

Oral Acute oral LD50 for male rats 760, female rats 1200 mg/kg. Skin and eye Acute percutaneous LD50 for rabbits >2000 mg/kg. Not an eye irritant; slight skin irritant (rabbits). Not a skin sensitiser (guinea pigs). Inhalation LC50 (4 h) for male and female rats >5.06 mg/l.

Chronic toxicity:

NOEL (2 y) for male rats 4.1, female rats 5.4, male mice 4.2, female mice 5.8, male and female dogs 3.0 mg/kg b.w. daily.

12. ECOLOGICAL INFORMATION

The following information is for the active ingredient, mancozeb.

Ecotoxicity:

Version; 1.0 Issue date: Oct. 10, 2022

Birds	Acute oral LD ₅₀ : for Mallard duck and Japanese quail > 5000 mg/kg Dietary LC ₅₀ (5 days): for bobwhite quail and mallard ducks >5200 mg/kg diet.
Fish	This product is very toxic to fish. LC ₅₀ (96h flow-through): for rainbow trout 1.0, bluegill sunfish >3.6 mg/l
Daphnia	EC ₅₀ (48 h): (48 h, flow-through) 3.8 mg/l; (48 h static-renewal) 0.073 mg/l; (24 h, static) 0.011 mg/l; (48 h, static) 0.39 mg/l.
Algae	EC ₅₀ : for <i>Selenastrum capricornutum</i> 0.044 mg/l.
Bees	LD ₅₀ (oral): >209 µg/bee LD ₅₀ (contact): >400 µg/bee
Earthworm:	LC ₅₀ (14 days): for <i>Eisenia foetida</i> >1000 mg/kg soil

Persistence and degradability: Rapidly degrades in the environment by hydrolysis, oxidation, photolysis, volatilization and bio-degradation.

Bioaccumulative potential: Because mancozeb hydrolyses rapidly, it does not bioconcentrate in aquatic organisms.

Mobility in soil: Mancozeb adsorbs into soil and therefore leaching should not occur.

PBT and vPvB assessment: The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

The following information is for the active ingredient, Cymoxanil

Birds Acute oral LD₅₀ for bobwhite quail and mallard ducks >2250 mg/kg. Dietary LC₅₀ (8 d) for bobwhite quail and mallard ducks >5620 mg/kg diet.

Fish LC₅₀ (96 h) for rainbow trout 61, bluegill sunfish 29, common carp 91, sheepshead minnows >47.5 mg/l.

Daphnia LC₅₀ (48 h) 27 mg/l.

Algae EC₅₀ (5 d) for *Selenastrum capricornutum* 1.21 mg/l; EC₅₀ for *Anabaena flos-aquae* 231 ppb.

Other aquatic spp. LC₅₀ (96 h) for eastern oysters >46.9, mysid shrimps >44.4 ppm.

Bees Not toxic to bees; LD₅₀ (48 h, contact) >25 µg/bee; LC₅₀ (48 h, oral) >1000 ppm.

Worms LC₅₀ (14 d) >2208 mg/kg soil.

13. DISPOSAL CONSIDERATION

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or

Version; 1.0 Issue date: Oct. 10, 2022

designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm 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.

14. TRANSPORT INFORMATION

UN Number: 3077

UN Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (contains Mancozeb and Cymoxanil)

Transport hazard class: 9

Packing group: III

Marine pollutant: Yes

15. REGULATORY INFORMATION

Follow all local and international laws, regulations and decrees.

16. OTHER INFORMATION

Version; 1.0

Issue date: Oct. 10, 2022

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

-- END OF MSDS --