

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Mancozeb + Metalaxyl 64%+8% WP

Trade Name: META COBB

	CAS NO.	Molecular weight	Chemical formula
Mancozeb	8018-01-7	271.2	$[C_4H_6MnN_2S_4]_xZn_y$
Metalaxyl	57837-19-1	279.3	$C_{15}H_{21}NO_4$

Supplier and Authorized Exporter: Shenzhen Yancheng Chemicals Co., Limited

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2. HAZARD IDENTIFICATION

1.1 Symptoms of Acute Exposure

May cause mild eye, irritation. Allergic skin reactions are possible.

1.2 Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

1.3 Unusual Fire, Explosion and Reactivity Hazards

Spontaneous combustion may occur at high temperatures or when exposed to water. Exposure to excessive heat or ignition sources presents a definite ignition hazard. Keep containers tightly closed when not in use. Fire can occur in closely packed, unventilated piles of bags. Exposure to moisture promotes decomposition which can cause spontaneous combustion. Check containers for warmth and remove warm containers to open areas for disposal. Mancozeb is combustible. Dusts at sufficient concentration can form explosive mixtures with air. Mancozeb is liable to spontaneous combustion at high temperatures or when exposed to water. Do not expose this material to flames or sparks. Minimize dusting as mancozeb dust can form explosive clouds.

This product has a minimum ignition energy between 300 and 1000 millijoules. Mechanical sparks, open flames, and certain hot surfaces can serve as ignition sources for this material. Eliminate the presence of mechanical sparks and other ignition sources where dust clouds of this material could form. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

1.4 Potential Health Effects

Relevant routes of exposure: Skin, eyes, mouth, lungs.

3. COMPOSITION INFORMATION

Ingredient		CAS No.	Content
Active ingredient	Mancozeb	8018-01-7	64%
Active ingredient	Metalaxyl	57837-19-1	8%
Inert	Not listed		Up to 100%

4. FIRST AID MEASURES

4.1 Description of first aid measures

General

Reactions are not likely to occur unless the absorbed dose is extraordinary. Symptoms of exposure to the product include: itching, scratchy throat, sneezing and coughing. Have the product container, label or Material Safety Data Sheet with you when going for treatment. Tell the person contacted the complete product name, and the type and amount of exposure describe any symptoms and follow the advice given.

If inhaled

If breathed in, move person into fresh air. Oxygen or artificial respiration if needed. Consult a physician.

In case of skin contact

Wash affected skin areas thoroughly with soap and water. Consult a physician if irritation persists. Remove and wash contaminated clothing thoroughly. Do not take clothing home to be laundered. Ingestion: If swallowed, give 2 glasses of water to drink. See a physician. Never give anything by mouth to an unconscious person.

In case of eye contact

Flush eyes with water. Consults a physician if irritation persists.

If swallowed

Obtain medical attention. Do not induce vomiting without medical advice. If victim is conscious: Rinse mouth with water. Drink 1 or 2 glasses of water.

Notes to physician

Treat symptomatically and supportive as and when required. Gastric lavage may be indicated. Administer charcoal slurry, aqueous or mixed with saline cathartic or sorbitol.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media

Dry powder, CO₂, Water spray or Foam.

5.2 Special fire fighting procedures

Wear full protective clothing and self-contained breathing apparatus. Use water spray cooling tank or container. Keep persons remove and upwind.

5.3 Unusual fire and explosion hazards

Hazardous gases or vapors produced in fire are H₂S, CS₂ and oxides of carbon, nitrogen & sulfur.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. A small spill can be handled routinely. Use adequate ventilation and wear equipment and clothing as described in Section 8 and/or the product label.

6.2 Procedures for dealing with release or spill

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from

entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Sections 7 and 8. Scoop or sweep up material and place into a disposal container. Wash area with detergent and water. Pick up wash liquid with additional absorbent and place into compatible disposal container. On soils, small amounts will naturally decompose. For large amounts, skim off the upper contaminated layer and collect for disposal. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposal. Spillages or uncontrolled discharges into watercourses must be reported to the appropriate regulatory authority.

7. HANDLING AND STORAGE

7.1 Handling

Do not store this material near food, feedstuff or drinking water. Store in a dry, well ventilated area in original package. Keep container tightly closed when not in use.

7.2 Storage

Do not handle material near food, feedstuff or drinking water. When handling and processing this material local exhaust ventilation may be required to control dust and reduce exposure to vapors.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Applicable control measures, including engineering controls

If necessary, ensure work areas have ventilation, containment, and procedures sufficient to maintain airborne levels below the TLV. Warehouses, production area, parking lots and waste holding facilities must have adequate containment to prevent environmental contamination. Provide separate shower and eating facilities.

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

CONSULT THE PRODUCT LABEL FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS.

8.1 Personal protective equipment for each exposure route

General

Avoid breathing dust, vapours or aerosols. Avoid contact with eye, skin and clothing. Wash thoroughly after handling and before eating, drinking, applying cosmetics or handling tobacco.

Inhalation

A respirator is not normally required when handling this substance. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below exposure limits. A NIOSH-certified combination air-purifying respirator with an N, P, R or HE class filter and an organic vapour cartridge may be used under certain circumstances where airborne concentrations are expected to exceed exposure limits (e.g. emergency spills).

Ingestion

Do not eat, drink, handle tobacco, or apply cosmetics in areas where there is a potential for exposure to this material. Always wash thoroughly after handling.

Eye

Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin

Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow powder
Odour	Characteristic
Odour threshold	No data available
pH	6.0-10.0
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid,gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water Solubility	Form suspension with water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

10. STABILITY AND REACTIVITY

10.1 Stability

Stable under normal storage conditions. Keep away from moisture, heat or fire.

10.2 Incompatibility hazard

Avoid contact with moisture, oxidizing agents and acids.

10.3 Hazard Decomposition

Thermal decomposition may yield carbon disulfide and hydrogen sulfide.

10.4 Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity

Oral

Low Toxic

Oral (LD50 Rat) : > 5000 mg/kg body weight

Dermal

Low Toxic

Dermal (LD50 Rabbit) : > 5000 mg/kg body weight

Inhalation

Low Toxic

Inhalation (LC50 Rat) : >2.0 mg/L for 4 hours

Eye Contact

Irritating (Rabbit)

Skin Contact

Practically no Irritating (Rabbit)

12. ECOLOGICAL INFORMATION**Metalaxyl:**

LD50 for Japanese quail (7 days) 923 mg/kg;

Mallard ducks (8 days) 1466 mg/kg.

LC50 (8 days) Japanese quail, bobwhite quail and mallard ducks > 10000 mg/kg

LC50 (96 h) for rainbow trout, carp, and bluegill sunfish > 100 mg/l

Bees

LD50 (48 h) (contact) > 200 µg/bee; (oral) 269.3 µg/bee Worms:

LC50 (14 days) for Eisenia foetida > 1000 mg/kg

Soil Daphnia: LC50 (48 h) >28 mg/l

Algae: IC50 (5 days) for Scenedesmus subspicatus 33 mg/l

Mancozeb

In ten-day dietary studies, there were no mortalities in mallard ducks at 6400 mg/kg daily and in Japanese quail at 3200 mg/kg daily LC50 (48 h) for goldfish 9.0 mg/l; rainbow trout 2.2mg/l; catfish 5.2 mg/l; carp 4.0 mg/l

Bees

LC50 0.193 mg/bee According to the above information, REMEX 72 WP is practically non-toxic to birds and moderately toxic to fish

13. DISPOSAL CONSIDERATION

For disposal, incinerate this material at a facility that complied with local, state and country regulations.

14. TRANSPORT INFORMATION

Class: 9

UN number: 3077

Packing group: III

Shipping name: Environmentally Hazardous Substance, Solid

15. REGULATORY INFORMATION**15.1 Hazard classification**

Risk Phrases

R 22 Harmful if swallowed

R 36/38 Irritating to eyes and skin

R 37 Irritating to respiratory system

R 43 May cause sensitization by skin contact

15.2 Safety phrases

S 2 Keep out of reach of children

S 8 Keep container dry

S 24/25 Avoid contact with skin and eyes

S 36/37 Wear suitable protective clothing and gloves

16. Other information

Disclaimer:

The manufacture provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. The manufacture makes no representations or express or implied, including without limitation any warranties of merchantability fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, the manufacture will not be responsible for damages resulting from use of or reliance upon this information.
