



河北双吉化工有限公司

HEBEI SHUANGJI CHEMICAL CO., LTD

EAST SUBURB OF XINJI CITY, HEBEI, CHINA TEL: 008631183372618 FAX: 008631183372299

MATERIAL SAFETY DATA SHEET (MSDS)

Mancozeb 80% WP

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name: Mancozeb 80% WP

Common name: Mancozeb

Manufacture: Hebei Shuangji Chemical Co., Ltd

Address: East Suburb of Xingji City, Hebei Province, 052360, China

TEL: 008631183372618 **FAX:** 008631183372299

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS number	%(w/w)
Mancozeb	8018-01-7	80.0% min.
Other ingredients: (Trade secret)	-----	20.0% max.

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview: This product is a yellow powder with a musty odor. This product is contained in vacuum-packed, watertight bags. A bag that is no longer rock-hard indicates a loss of integrity. Loss of package integrity may result in the product reacting with atmospheric moisture over time to commence a process that produces heat and a number of noxious, toxic, flammable gasses.

This process may be accelerated in the presence of external heat sources. Airborne dust may create an explosive environment. Contact may cause skin, eye and respiratory irritation and sensitization.

Potential Health Effects:

Eyes: Direct contact may cause moderate eye irritation.

Skin contact: Contact may cause slight skin irritation. Prolonged or repeated skin contact may cause contact dermatitis.

Skin absorption: A single prolonged exposure is not likely to result in this material being absorbed in harmful amounts.

Ingestion: Normal handling operations will not likely result in the product being ingested in harmful amounts.

Inhalation: Inhalation of dust can cause irritation of the nose and throat.



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SECTION 4. FIRST AID MEASURES

- Skin Contact** Remove contaminated clothing immediately.
Wash contaminated skin areas with soap or mild detergent and large amount of water. Get medical attention if symptoms occur or recur.
- Eye contact** Irrigate the eyes with large amount of water or normal saline solution and obtain medical aid.
- Ingestion** If person is alert and respiration is not depressed, give syrup of IPECAC followed by 1 – 2 glasses of water to induce vomiting. Following emesis administer 30 – 50 grams of Activated Charcoal followed by Sodium or Magnesium Sulfate @ 250 mg/kg to remove toxicant from the gut by catharsis.

SECTION 5. FIRE FIGHTING MEASURES

Flash point: 137.8°C (Tag Open Cup)

Flammable limits: Not available

Extinguishing media: Use CO₂, dry chemical, water spray or foam.

Sensitivity to mechanical impact/static discharge: Not available

Unusual fire and explosion hazards: Toxic, flammable gasses, including carbon disulfide, hydrogen sulfide and oxides of carbon, nitrogen and sulfur, as well as ethylenethiourea (ETU), will be produced under fire conditions. Chronic (long-term) exposure to ETU is associated with a number of health effects including thyroid tumors, cancer and birth defects. None of these effects are anticipated from normal occupational exposure to ETU. Short-term acute exposure to ETU, such as that likely to be experienced by HAZMAT responders or bystanders, will not result in any harmful effects. ETU is readily oxidized (under fire conditions) to ethylene urea, which is a relatively innocuous material. Fight fire from an upwind location. Consider inhouse sheltering of bystanders present in the smoke shadow. In fire conditions, this product may smolder without the presence of open flame. These smoldering fires may be difficult to control. Use water spray to cool containers exposed to fire. Thoroughly wet all exposed material to prevent continued smoldering. Small amounts of water may appear to intensify the fire. Discontinue water spray if container integrity is lost. Under these conditions, carbon dioxide or foam may be more effective fire control agents than water spray. Contain firefighting water for future disposal. Where conditions permit, consider ventilation and high temperature incineration of the involved product. Suspensions of mancozeb 80% WP dust in the air may ignite or explode. The presence of water and an external heat source (such as fire) may accelerate decomposition of this product, resulting in the generation of further heat and the formation of toxic, flammable gasses. The result of this process may be continuing outbreaks of smoldering product. Under post-fire conditions, all involved material



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should be inspected for evidence of damage from exposure to heat and/or water. Offending bags should be opened in a well-ventilated area, the contents placed in secure containers, slurried with water and held for proper disposal.

Fire-fighting equipment: Wear positive pressure self-contained breathing apparatus and full turnout gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Land Spill or Leak: If the spill occurs out of doors, cover the spilled product with a moisture-proof material to prevent degradation. If the covered material is in direct sunlight, measures should be taken to protect it from solar heat, which may cause degradation to commence or accelerate. For small spills, sweep up material from broken containers in a manner that does not form an air-borne dust, and store collected material as a slurry in water in secure containers until safe disposal can be arranged. Do not vacuum up spilled material as the dust created may form an explosive mixture when combined with air. If the spilled material is dispersed in water, use enough absorbent to contain the spill in the form of a slurry, then scoop up the collected material and store it in suitable containers until proper disposal can be arranged. Do not allow spilled material to contaminate water supplies.

SECTION 7. HANDLING AND STORAGE

Handling: Do not handle this product near food, feed or water. Keep out of reach of children or animals. An air-borne dust of this material can create a dust explosion. To prevent dust explosions, employ electrical bonding and grounding procedures to control static electricity when handling this product. Avoid breathing dust, or ingestion and contact of this product with eyes, skin or clothing. Remove and wash contaminated clothing before reuse. Contaminated clothing should be washed separately from domestic laundry and line-dried. Once used for contaminated clothing, the washing machine should be operated through a complete cycle with hot water and heavy-duty laundry detergent only, prior to use for domestic laundry. Users should wash hands and face before eating, drinking, chewing gum, using tobacco or the toilet.

Storage: Store in a cool, well-ventilated area. Some degradation products of this material are combustible; avoid ignition sources. Store in original sealed containers in well-ventilated locations. Store bagged material only on pallets, and allow for free ventilation below and on the sides of stored bags. Provide an access aisle for each two rows of stored material. Unpalletted bags should be stored in loose stacks no more than two meters high/long/wide, and allow for free ventilation below and on the sides of stacked bags. Do not allow this material to become wet or overheated in storage, as decomposition, impaired activity or fire may



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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. In confined spaces, where airborne levels may exceed exposure guidelines, provide supplementary exhaust ventilation.

Breathing: Atmospheric levels should be maintained below the exposure guidelines. For emergency and other conditions where the exposure guidelines may be exceeded, workers must wear an approved full or half-face respirator equipped with organic vapor cartridges or canister approved for pesticide use or loose fitting powered air-purifying respirator. Where exposure guidelines may be greatly exceeded, or in confined or poorly ventilated areas, workers must use an approved positive pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

Protective clothing: For brief contact during manufacture, warehousing and transport, wear clean body-covering clothing and impervious gloves. During operations where direct contact to the concentrated product may occur, use protective clothing impervious to this product. Selection of specific items such as face shield, respirator, boots, gloves, apron or full body suit will depend on the operation being carried out. Applicators and other field handlers, including persons repairing or cleaning application equipment, must wear clean body-covering clothing, impervious gloves and boots. In addition, persons making and/or transferring field dilutions of this product must wear an impervious apron.

Eyes: Use chemical workers' goggles.

Other protection: Facilities storing or utilizing this material should be equipped with an eyewash station and safety shower. Under field conditions, an eyewash bottle with at least one liter of fresh water should be available at the work site.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light to grayish yellow powder.	Melting Point	Decomposes before melting.
Odour	Musty odour.	Boiling point	N.A.
Autoflammability	-----.	Oxidizing property	Non Oxidising
Explosive properties	Non – Explosive	Density	1.92 g/ml
Solubility in water	Soluble	Flash Point	Non flammable
Vapour pressure	Negligible	pH of 1% solution	7 – 9
Suspensibility	77.68	Viscosity	N.A.



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SECTION 10. STABILITY AND REACTIVITY

Thermal Stability	Stable under normal temperature and pressure
Conditions to avoid	Never heat the compound above or near to melting point temperature.
Material to avoid	Avoid acidic material, strong oxidizers.
Hazardous Decomposition Products	Thermal decomposition products may include toxic Oxides of Carbon, Nitrogen and Sulfur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute LD ₅₀ Oral Rat	> 5000 mg/kg body weight.
Acute LD ₅₀ Dermal Rat	> 2000 mg/kg body weight.
Acute LC ₅₀ Inhalation Rat	>5.34 – 7.38 mg/l of air
Eye Irritation Test Rabbits.	Slightly irritant.
Skin Irritation Test Rabbits.	Slightly irritant.
Skin Sensitization Guinea Pig	Skin allergy observed for repeated exposure.
Carcinogenicity	Non – Carcinogenic
Mutagenic	Non – Mutagenic
Reproductive Toxicity	The NOAEL was 100 ppm equal to 3 mg/kg bw/day.

SECTION 12. ECOLOGICAL INFORMATION

LC ₅₀ (96 h) for Common Carp	3.7 mg /l
EC ₅₀ for Daphnia	3.2 mg/l
Acute Dietary LC ₅₀ for Chicken	> 5000 mg/kg
Bee Toxicity LD ₅₀	
% Biodegradability	The material is not readily biodegradable
Sewage Toxicity	Toxic

SECTION 13. DISPOSAL CONSIDERATIONS

Incineration or landfill in accordance with local regulations. Contaminated packing material should be treated in a same manner as the product

SECTION 14. TRANSPORT INFORMATION

UN Number	3077
Marine Pollutant	Yes
Class	9
IATA Packing Instruction	III
Flash Point	N.A.
First Aid Code	N.A.



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SECTION 15. REGULATORY INFORMATION

Classification Harmful, Toxic

Risk Phrases R22 Harmful if swallowed.

R25 Relatively less toxic to aquatic organism.

R53 May cause long term adverse effects in the aquatic environment.

Safety Phrases S2 Keep out of reach of children.

S13 Keep away from food, drink and animal feedings.

S36 Wear protective clothing.

S56 Dispose off this material and its container to hazardous or special waste collection point.

S62 if swallowed induce vomiting and seek Medical advice immediately and show The container label.

SECTION 16. OTHER INFORMATION

Incompatible with the acidic material.

Antidote: No specific antidote available. Treat symptomatically and supportively.

Notice: This product should be stored, handled and used in accordance with good industrial practices and in conformity with legal regulation.
This information is based on present knowledge for your guidance on safety requirements. It is not intended as a specification.

