

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name: Kenso Agcare Kencozeb 750 Fungicide
Product Type: Group Y Fungicide
Company Name: Kenso Corporation (M) Sdn Bhd
Address: Unit 3C, 59, Oxford Street, Bulimba Queensland 4171
Telephone Number: (07) 3217 9788
Facsimile Number: (07) 3217 9733
Emergency Telephone Number: 000 (Police or Fire Brigade)
13 11 26 (Poisons Information Centre)
Use: For the control of certain fungus diseases of fruit, field crops, tobacco, turf, vegetables and ornamentals as per the Directions for Use Table.

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Mancozeb	8018-01-7	75 % w/w
Inert ingredient	secret	To 100 % w/w

SECTION 3 – HAZARDS IDENTIFICATION

Hazard Classification: This product is classified as: Hazardous according to the criteria of NOHSC Australia. This product range is classed as a MARINE POLLUTANT only and so the Dangerous Goods classification which follows is for MARINE transport only. Not classed as a Dangerous Good for Storage or Road and Rail transport.

Risk Phrase(s): R37, R43, R51. Irritating to respiratory system. May cause sensitisation by skin contact. Toxic to aquatic organisms.

Safety Phrase(s): S22, S28, S38, S60, S61. Do not breathe dust. After contact with skin, wash immediately with plenty of soap and water. In case of insufficient ventilation, wear suitable respiratory equipment. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions or safety data sheets.

SUSDP Classification: S5
ADG Classification: Class 9 (ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., contains Mancozeb)
UN Number: 3077

Emergency Overview

Physical Description & colour: Yellow free flowing granule.
Odour: Mild sulfurous odour.
Major Health Hazards: Mancozeb is practically nontoxic via the oral route with reported oral LD₅₀ of greater than 5000 mg/kg to greater than 11,200 mg/kg in rats. Via the dermal route it is practically nontoxic as well, with reported dermal LD₅₀ values of greater than 10,000 mg/kg in rats, and greater than 5000 mg/kg in rabbits. It is a mild skin irritant and sensitizer, and a mild to moderate eye irritant in rabbits. Workers with occupational exposure to Mancozeb have developed sensitization rashes.

Potential Health Effects

Health Effects

Acute:

- Swallowed:** The concentration is of low toxicity if swallowed.
- Eye:** May irritate the eyes.
- Skin:** May cause sensitisation by prolonged skin contact.
- Inhaled:** Inhalation of dust may result in respiratory irritation.

Chronic Effects:

Prolonged exposure to dust or mists containing manganese compounds can cause progressive poisoning. The signs and symptoms are apathy, loss of balance and weakness. More advanced poisoning may show evidence of central nervous system disturbance.

SECTION 4 – FIRST AID MEASURES

Swallowed:	If swallowed DO NOT induce vomiting. Give a glass of water. Seek medical advice if effects persist. If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia)
Skin:	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water. Remove contaminated clothing and launder before re-use.
Eyes:	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
Inhaled:	Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.

Advice to Doctor:

Treat symptomatically. Avoid giving alcohol – may cause vomiting and shock.

SECTION 5 – FIRE FIGHTING MEASURES

Fire/Explosion Hazards

There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. This product, if scattered, may form flammable or explosive dust clouds in air.

Extinguishing Media

Not Combustible. Use extinguishing media suited to burning materials.

Fire Fighting

If a significant quantity of this product is involved in a fire, call the fire brigade. Do not scatter spilled material with high pressure water jets.

Flash Points:

Not flammable.

Upper Flammability Limit: No data
Lower Flammability Limit: No data
Autoignition temperature: No data
Flammability class: No data

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills and Disposal

Recover the product by sweeping up or vacuuming without raising dust. Collect in sealed open top containers for disposal.

Environmental Precautions

Prevent from entering drains, waterways or sewers.

Clean-up Methods – Large Spillages

Place damaged containers in recovery bins (if available) and return to manufacturer.

SECTION 7 – HANDLING AND STORAGE

Handling

DO NOT spray in high winds. DO NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers. No special precautions are necessary when handling sealed containers.

Storage

Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

National Exposure Standards

No exposure standards for this product has been set, however, an exposure standard has been set for manganese, dust and compounds at 1 mg/m³.

Respiratory Protection

Do not inhale spray mist.

Personal Protective Equipment

When opening the container and preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles. Re-entry period: Do not enter treated area until spray has dried.

Engineering Controls

Natural ventilation is sufficient when handling concentrate and preparing spray solution.

Hygiene Measures

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	Free flowing granule
Colour:	Yellow
Odour:	Mild sulfurous odour
Boiling point (°C):	Not available
Melting point (°C):	None – decompose at about 192° C without melting.
Vapour Pressure:	Negligible at normal room temperature
Specific Density:	Not available
Flashpoint:	Not available
Flammability Limits:	Non flammable

Solubility in Water: Disperse in water. Not soluble. Solubility of mancozeb is 6.2 mg/l @ 25° C

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: None known. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: Strong acids, strong bases, strong oxidizing agents.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Water. Manganese and zinc compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death. Hydrogen cyanide poisoning signs and symptoms are weakness, dizziness, headache, nausea, vomiting, coma convulsion and death. Death results from respiratory arrest. Hydrogen cyanide gas acts very rapidly; symptoms and death can both occur quickly.

Polymerisation: This product is unlikely to undergo polymerization processes.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicity Data:

Mancozeb technical
Acute oral LD₅₀ for rats: >5000 mg/kg
Acute dermal LD₅₀ for rats: > 10000 mg/kg
Acute dermal LD₅₀ for rabbits: > 5000 mg/kg

SECTION 12 – ECOLOGICAL INFORMATION

Acute Toxicity – Birds

LC₅₀ for (mallard duck) is > 10,000mg/kg
LC₅₀ (10d) for Japanese quail is 3200 mg/kg
LC₅₀ for Bobwhite quail is > 10,000 mg/kg

Acute Toxicity - Fish

LC₅₀ for Carp is 4.0 mg/L
LC₅₀ for rainbow trout is 2.2 mg/L
LC₅₀ for golden goldfish is 9.0 mg/L

Acute Toxicity – Other Organisms

Not toxic to bees. LD₅₀ 193 µg/bee.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed.

SECTION 14 – TRANSPORT INFORMATION

UN Number: None Allocated
Proper Shipping Name: None Allocated
ADG Class: 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, contains Mancozeb.
Hazchem Code: 2X
Packing Group: III
Special Provisions: SP179, SP274
Dangerous Goods Class: Class 9, Miscellaneous Dangerous Goods.
Packaging Method: 3.8.9

SECTION 15 – REGULATORY INFORMATION

Poison schedule S5
Packaging & Labelling CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

SECTION 16 – OTHER INFORMATION

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS Australian Inventory of Chemical Substances
CAS number Chemical Abstracts Service Registry Number
Hazchem Number Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC International Agency for Research on Cancer
NOHSC National Occupational Health and Safety Commission
SUSDP Standard for the Uniform Scheduling of Drugs & Poisons
UN Number United Nations Number

CONTACT POINT:

Police and Fire Brigade: Dial 000
National Poisons Information Centre: Dial **13 11 26 (from anywhere in Australia)**
For 24 hour emergency response: Dial 0439 933 556
Ask for Murray Goodlich