

Richgro Mancozeb Plus Sulphur Fungicide



Revision: 2

Reissue Date:
04/03/2021

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SAFETY DATA SHEET

CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF SAFE WORK AUSTRALIA

SECTION 1 - IDENTIFICATION OF THE MATERIAL AND SUPPLIER

RICHGRO GARDEN PRODUCTS

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POISONS INFORMATION CENTRE: Phone (e.g. Australia 13 11 26; New Zealand 0800 764 766).

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PRODUCT NAME

RECOMMENDED USE:

Richgro Mancozeb Plus Sulphur Fungicide
Fungicide for domestic use

SECTION 2 - HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF SAFE WORK AUSTRALIA
CLASSIFIED AS DANGEROUS GOOD – CLASS 9 MISCELLANEOUS.
SCHEDULED S5 POISON.

PHYSICAL HAZARDS: Not Classified

HEALTH HAZARDS:

Skin Corrosion /Irritation Category 2

Skin Sensitisation Category 1

Reproductive Toxicity Category 2

ENVIRONMENTAL HAZARDS: Hazardous to aquatic environment Short term/Acute
Category 2

Label elements

GHS Signal Word:

WARNING



HAZARD STATEMENT:

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H361: Suspected of damaging fertility or the unborn child.

H401: Toxic to aquatic life.

PREVENTION

P102: Keep out of reach of children

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing dusts.

P262: Do not get in eyes, on skin, or on clothing.

P264: Wash contacted areas thoroughly after handling.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment

RESPONSE

P363: Wash contaminated clothing before reuse.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.

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

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

STORAGE

P402+P404: Store in a closed container, in a dry place.

DISPOSAL

P501: Dispose of small quantities and empty containers by wrapping with paper and putting in household waste for landfill. For larger quantities that cannot be recycled, dispose of contents and container to approved landfill (see Section 13 of this SDS).

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SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS Number	Concentration
Mancozeb	8018-01-7	235g/Kg
Sulfur as wettable sulfur	7704-34-9	549g/kg
Non-hazardous ingredients	secret	balance

SECTION 4 - FIRST AID MEASURES

GENERAL INFORMATION: If in doubt, get medical attention promptly. Show this Safety Data Sheet to medical personnel.

EYES: Hold eyelids open and rinse the eye continuously with a gentle stream of clean running water for at least fifteen minutes. Seek medical attention.

SKIN: Remove contaminated clothing and wash thoroughly with soap and water. Use water alone, if soap is unavailable. Apply a moisturising hand cream, if available. Seek medical attention if any soreness or inflammation of the skin persists or develops later. Launder affected clothing before re-use.

INGESTION: Rinse mouth out with water ensuring that mouth wash is not swallowed. Give about 250mL (2 glasses) of water to drink. DO NOT attempt to induce vomiting. Seek medical attention as a precautionary measure.

INHALATION: First aid is unlikely to be required as a result of exposure during normal use but if symptoms occur, remove to fresh air. Keep warm and at rest. Seek medical attention if symptoms persist.

Additional Information:

First Aid Facilities: Not required.

Advice to Doctor: Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Combustible. Finely dispersed particles form explosive mixtures in air.

SUITABLE EXTINGUISHING MEDIA: Foam, dry chemical powder (bicarbonate or ammonium phosphate based) or carbon dioxide are all suitable. Do not use high volume water jets, as this may spread the fire.

HAZARDS FROM COMBUSTION PRODUCTS: Gives off irritating or toxic fumes (or gases) in a fire.

PROTECTIVE EQUIPMENT: Fire fighters should wear self-contained breathing apparatus. Keep containers as cool as possible by spraying with water from a protected position.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: Wear protective equipment as specified for handling (See Section 8).

SPILLS: Product is granular and is sold in small containers, so spills are unlikely to require special treatment. Sweep up and re-use.

SECTION 7 - HANDLING AND STORAGE

SAFE HANDLING PRECAUTIONS: Avoid eye and skin contact. Avoid generating dust.

SAFE STORAGE PRECAUTIONS: Keep out of reach of children. No special storage precautions required but product life will be maximised if it is stored out of direct sunlight in a cool well ventilated area.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE STANDARDS: None allocated

Exposure standards represent the airborne concentration of a particular substance in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. The exposure standard can be of three forms; time-weighted average (TWA), peak, or short term exposure limit (STEL).

BIOLOGICAL LIMIT VALUES: None allocated

ENGINEERING CONTROLS: None required for domestic use of this product. If handling bulk product, work area should have good, mechanical ventilation. Local exhaust ventilation is unlikely to be required for foreseeable uses of this product-yellow powder.

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PERSONAL PROTECTION: Requirements depend on working conditions, method of application and quantity of product in use. No special equipment is required for handling small quantities but safety glasses or goggles must be worn if there is any potential for eye contact. Nitrile, neoprene, PVC or natural rubber gloves should be worn if there is any potential for skin contact.

Respiratory protection is unlikely to be required for foreseeable uses of this product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

Physical Description & colour:	Brown-yellow powder
Odour:	Mild
Boiling Point:	No data available
Freezing Point:	Solid at normal ambient temperature
Volatiles:	Negligible
Vapour Pressure:	Negligible
Vapour Density:	Negligible
Specific Gravity:	No data available
Water Solubility:	No data available
pH:	No data available
Volatility:	Negligible
Evaporation Rate:	Negligible
Auto ignition temp:	No data available
Flash point:	No data available
Upper Flammability Limit:	No data available
Lower Flammability Limit:	No data available
Flammability Class:	Dust explosion possible if in powder or granular form, mixed with air

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions of use and storage

CONDITIONS TO AVOID: This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry. Protect this product from light.

INCOMPATIBLE MATERIALS: None known

HAZARDOUS DECOMPOSITION PRODUCTS: Will evolve toxic fumes, including oxides of sulphur, nitrogen and carbon, if burned in a fire situation.

HAZARDOUS REACTIONS: None known.

POLYMERISATION: This product will not undergo polymerisation reactions.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE - SWALLOWED: Possible irritation of gastro-intestinal tract.

ACUTE – EYE: Irritating. Contact may cause redness.

ACUTE – SKIN: Slightly irritating in case of skin contact. Prolonged or repeated skin contact may result in skin sensitisation and dermatitis in sensitive individuals.

ACUTE – INHALED: Product is in powdered form but inhalation is not anticipated as a result of normal use.

TOXICITY:

Mancozeb: Mancozeb is rapidly absorbed into the body from the gastrointestinal tract, distributed to various target organs, and almost completely excreted in 96 hours. It is practically nontoxic orally with reported oral LD₅₀ of more than 5000 to more than 11,200 mg/kg in rats. Dermal it is also practically nontoxic, with reported dermal LD₅₀ values of more than 10,000 mg/kg in rats, and more 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.

It is metabolized to ethylene thiourea (ETU), which is a carcinogen, based on thyroid and other cancers in rodents; ETU is also known to cause decreases of thyroxine and increases in thyroid-stimulating hormone in rodents.

Mancozeb: LD₅₀ Oral, Rat 8000mg/kg

LD₅₀ Dermal, Rat = 10,000mg/kg

LD₅₀ Dermal, Rabbit = >5000mg/kg

LC₅₀ Inhalation, Rat = >5.14mg/L/4hr

Sulfur: LD₅₀ Oral, Rat >8437mg/kg

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SECTION 12 - ECOLOGICAL INFORMATION

This product is acutely toxic to aquatic organisms. Acute toxicity estimate based on ingredients is <1mg/L Mancozeb

96hour LC₅₀ (fish): 0.46mg/L

48hour EC₅₀: (Daphnia magna) : 0.073mg/L

12hour EC₅₀ (algae): 0.047mg/L

This product is biodegradable. It will not accumulate in the soil or water or cause long term problems

Effects on birds: Mancozeb is not harmful to birds, with reported -day dietary LC₅₀ values in bobwhite quail and mallard ducklings of greater than 10,000 ppm. The 10-day dietary LC₅₀ values of 6400 ppm and 3200 ppm are reported for mallard ducks and Japanese quail, respectively.

Effects on aquatic organisms: Mancozeb is moderately to highly toxic to fish and aquatic organisms.

Effects on other organisms: Mancozeb is not toxic to honeybees.

Environmental Fate:

Breakdown in soil and groundwater: Mancozeb is of low soil persistence, with a reported field half-life of 1 to 7 days. Mancozeb rapidly and spontaneously degrades to ETU in the presence of water and oxygen. ETU may persist for longer, on the order of 5 to 10 weeks. Because Mancozeb is practically insoluble in water, it is unlikely to infiltrate groundwater.

Breakdown in water: Mancozeb degrades in water with a half-life of 1 to 2 days in slightly acidic to slightly alkaline conditions.

Breakdown in vegetation: When used as directed, Mancozeb is not poisonous to plants.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose of small quantities and empty containers by wrapping with paper and putting in household waste for landfill. For larger quantities that cannot be recycled, dispose of contents and container to approved landfill. Do not allow to enter waterways.

SECTION 14 - TRANSPORT INFORMATION

This product is a dangerous good according to the Australian Code for the Transportation of Dangerous Goods by Road and Rail (ADG Code), the International Maritime Dangerous Goods Code (IMDG) nor the International Air Transport Association (IATA) criteria.

UN Number: 3077

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID N.O.S. (CONTAINS MANCOZEB)

DG Class: 9 (Miscellaneous)

HazChem code: 2Z

Packing group: III

Not to be loaded with explosives

SECTION 15 - REGULATORY INFORMATION

Product is a Schedule S5 Poison

All ingredients in this formulation are listed in the Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme (NICNAS).

SECTION 16 - OTHER INFORMATION

REFERENCES

1. National Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals, 2011
2. Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC: 1003(1995)] and subsequent amendments
3. Australian Code for the Transportation of Dangerous Goods by Road and Rail (ADG Code), 7.7th Edition, 2020
4. Standard for the Uniform Scheduling of Medicines and Poisons No. 32, February 2021 and subsequent amendments

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ABBREVIATIONS

BOD	Biological oxygen demand
CAS number	Chemical Abstracts Service Registry Number
EC ₅₀	Half maximal effective concentration
ETU	Ethylene thiourea
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
LDLo	Lowest documented lethal dose
LD ₅₀	Lethal Dose for 50% of test population (ingestion or skin contact)
LC ₅₀	Lethal Dose for 50% of test population (inhalation)
UN Number	United Nations Number

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