

Material Safety Data Sheet

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Infosafe No. 3NU0R Issue Date : July 2005 ISSUED by CRPCARE

Product Name : **Thiragranz Fungicide**

Classified as hazardous according to criteria of NOHSC

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name Thiragranz Fungicide
Product Code 5114
Product Use Product controls fungal diseases of Fruit Trees, Grapevines, Strawberries, Vegetables & Ornamentals; and for use as a seed treatment to control various fungal diseases of Chickpeas, Lupins and Sorghum as specified in the Directions for Use Table.
Company Name Crop Care Australasia Pty Ltd (ABN 53 061 362 347)
Address 77 Tingira Street Pinkenba
Queensland 4008 Australia
Emergency Tel. 1800 033 498
Telephone Number/Fax Tel: (07) 3867 9100 Fax: (07) 3867 9110
Product Type Group Y Fungicide
Other Information This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Solid
Ingredients

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
Thiram	137-26-8	800 g/kg
Dispersant	-	200 g/kg

Substance Chemical Family Dithiocarbamate

3. HAZARDS IDENTIFICATION

Harmful by inhalation and if swallowed.
Irritating to eyes and respiratory system.
Possible risk of irreversible effects.
May cause sensitization by skin contact.

Other Information Poisons Schedule 6

4. FIRST AID MEASURES

Inhalation Remove victim from exposure - avoid becoming a casualty.
If breathing is difficult, oxygen may be given by a trained person.
Obtain medical assistance.

Ingestion Give a glass of water.
Rinse mouth thoroughly with water.
Seek medical advice immediately.

Skin Wash affected areas thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.
If irritation persists, seek medical advice.

Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.
If irritation persists consult a doctor.

First Aid Facilities If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).

Advice to Doctor Treat symptomatically.
Avoid giving alcohol - may cause vomiting and shock.

5. FIRE FIGHTING MEASURES

Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Hazardous Combustion Products If involved in a fire, it will emit oxides of sulphur, oxides of carbon and possibly oxides of nitrogen.
Combustible liquid at high temperatures.

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Emergency Action in case of Fire	If exposed to fire, keep container cool by spraying with water. If possible, remove other containers from the area of fire.
Protective Equipment	Breathable air apparatus should be worn when fighting a fire in which thiram is involved.
Other Information	Hazchem code 2X .

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal	Pick up with a shovel and broom. Collect in sealed open top containers for disposal. On-site disposal of concentrate is not acceptable. Do NOT flush with water.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	Prevent from entering drains, waterways or sewers.

7. HANDLING AND STORAGE

Handling	Avoid generating dusts while handling the product and mixing. If dusts are generated, it is advisable to wear a dust mask, refer Section 8. Seed treated with this product must not be used for animal or human consumption or be allowed to contaminate seed intended for animal or human consumption.
Storage	Store in the closed, original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Do not store in the same area as acids. Treated seed, when stored, should be kept apart from other seed. The containers should be clearly marked to indicate the contents have been treated with this product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this product by Worksafe Australia, however, the TWA exposure standard for dusts not otherwise specified is 10 mg/m ³ .
Other Exposure Information	OSHA (USA) has set the following exposure standards for Thiram PEL 5 mg/m ³ ; STEL not allocated. ACGIH has set the following exposure standards for Thiram TLV TWA 1 mg/m ³ ; STEL not allocated.
Respiratory Protection	If dusts are present, wear a class P2 dust mask.
Eye Protection	Wear chemical goggles.
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 face shield or goggles.
Eng. Controls	Handle in well ventilated areas, generally natural ventilation is adequate. Avoid generating and inhaling dusts.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White Granules
Solubility in Water	Disperses in water. 18 mg/l thiram
Specific Gravity (H₂O=1)	1.29
Vapour Pressure	2.3 mPa @ 25°C for thiram
Partition co-efficient, n-octanol/water	Kow Log P is 1.73 for thiram
Flammability	Danger of dust explosion.

10. STABILITY AND REACTIVITY

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Stability	Stable under normal conditions.
Hazardous Polymerization	Hazardous polymerisation is not possible.
Materials to Avoid	The addition of a strong acid will cause release of carbon disulfide vapour. Carbon disulphide is a volatile liquid, toxic. TLC/TWA 31 mg/m ³ , autoignition temperature ~100°C.
Hazardous Reaction	Keep away from strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

Inhalation	The product may constitute a moderate hazard during spraying operations. Will cause irritation to mucous membranes. When applying the product as a spray avoid breathing in spray mists.
Ingestion	Ingestion of the solid is not a likely route of exposure. Possible symptoms of exposure of the concentrate include: headache, arrhythmia, shortness of breath and nausea. Consumption of alcohol increases the toxic effects.
Skin	Prolonged contact with the concentrate may cause irritation. Prolonged or repeated exposure may cause skin sensitisation.
Eye	The concentrate will cause irritation of the eyes.
Chronic Effects	Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.
Mutagenicity	Worksafe Australia has classified thiram as a Category 3 Mutagenic Substance; a substance that causes concern for man owing to possible mutagenic effects.
Carcinogenicity	Worksafe Australia has classified thiram in the occupational environment as a Carcinogen Category 3 substance. This means that the substance is not classifiable as to carcinogenicity to humans.
Acute Toxicity - Oral	LD50 (rat) 2600 mg/kg LD50 (mice) 1500-2000 mg/kg LD50 (rabbit) 210 mg/kg
Acute Toxicity - Dermal	LD50 (rabbit) >2000 mg/kg
Acute Toxicity - Inhalation	LC50 (4hr) (rat) 4.42 mg/l
Eye Irritation	The product is an eye irritant.
Skin Irritation	Mild skin irritant.
Respiratory Irritation	The product is a respiratory irritant.
Skin Sensitisation	Prolonged and repeated skin contact may result in skin sensitisation.
Other Information	The Australian Acceptable Daily Intake (ADI) for thiram for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.4 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, August 2003).

12. ECOLOGICAL INFORMATION

Known Harmful Effects on the Environment	The product is a marine pollutant for sea transport.
Other Precautions	Do not contaminate dams, waterways or sewers with this product. Do not feed treated seed, or otherwise expose, to wildlife and domestic animals, particularly birds.
Mobility	Rapid degradation in soil prevents significant downward movement under normal conditions.
Persistence / Degradability	Average field half life of thiram is <1 days.
Acute Toxicity - Fish	LC50 (96 hr) for (bluegill sunfish) is 0.045 mg/l. LC50 (96 hr) for (rainbow trout) is 0.128 mg/l.
Acute Toxicity - Daphnia	LC50 (48 hr) for (daphnia) is 0.21 mg/l.

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Acute Toxicity - Other Organisms LD50 for male ringneck pheasant is 673 mg/kg for thiram
Bees: Not toxic to bees. LD50 >2000 µg/bee.

13. DISPOSAL CONSIDERATIONS

Product Disposal On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemCollect). Any seed treated with Thiragranz alone not intended for immediate sowing should be destroyed by burying below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

Container Disposal Thoroughly wash out the inner and add washings to the spray tank. Dispose of washed inner and cardboard box in landfill. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm 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

U.N. Number None Allocated
DG Class None Allocated
Hazchem Code None Allocated
Packing Group None Allocated
Storage and Transport Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
UN Number (Sea Transport) 3077
IMO Class/Packing Group 9
IMO Marine Pollutant Marine Pollutant
IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. - (contains Thiram)

15. REGULATORY INFORMATION

Risk Phrase R20/22 Harmful by inhalation and if swallowed.
R36/37 Irritating to eyes and respiratory system.
R40(3) Possible risk of irreversible effects.
R43 May cause sensitization by skin contact.

Safety Phrase S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S46 If swallowed, seek medical advice immediately and show this container or label.
S51 Use only in well ventilated areas.

Poisons Schedule S6

Packaging & Labelling POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Hazard Category Harmful, Irritant

16. OTHER INFORMATION

Contact Person/Point Normal Hours: Mr Volker Maier Phone: (03) 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498

Revisions Highlighted The MSDS was reviewed. Minor changes were made to the information.

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