

THIRAM 800 WG

MATERIAL SAFETY DATA SHEET



1. IDENTIFICATION OF THE SUPPLIER

Supplier Details:

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2. IDENTIFICATION OF THE PRODUCT:

Product Name: Melpat Thiram 800 WG

Active Ingredient: Thiram: 800g/kg

Use: For the control of various fungal diseases of fruit and vegetables as per the Directions for Use Table on the Product Label

Physical Appearance: Flowable, wetttable granule formulation

Solubility: Insoluble in water

Product Code: None

UN Number: UN3077

Hazardous Category: Harmful Irritant

Hazchem Code: 9

Packing Group: III

EPG: None allocated

Sub Risk Class: None allocated

Poison Schedule: S6

3. HAZARDS IDENTIFICATION:

Hazard Classification Classified as hazardous
 HAZARDOUS SUBSTANCE

NON-DANGEROUS GOODS

Hazard Classification according to the criteria of NOHSC.
 Dangerous goods classification according to the Australia
 Dangerous Goods code.

Risk Phrase(s):	Classified as hazardous R20/22 Harmful by inhalation and if swallowed R36/38 Irritating to eyes and skin. R43 May cause sensitization by skin contact R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Safety Phrase(s):	S13 Keep away from food, drink and animal feeding stuffs. S2 Keep out of reach of children. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S51 Use only in well ventilated areas.
Other Information	Poisons Schedule S6

4. COMPOSITION / INFORMATION ON INGREDIENTS:

Chemical Characteristics:	Solid		
Ingredients:	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Thiram	137-26-8	800 g/kg
Substance Chemical Family:	Dithiocarbamate		

5. FIRST AID MEASURES:

Inhalation:	Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and seek medical advice.
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.
Eyes:	In 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 the Poisons Information Centre (Australia) on 13 11 26.
Advice to Doctor:	Treat symptomatically. Avoid giving alcohol – may cause vomiting and shock.

6. FIRE FIGHTING MEASURES:

Suitable Extinguishing Media:	Water fog, foam, carbon dioxide or dry chemical.
Hazards from 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.
Special Protective Equipment for Fire Fighters:	Breathable air apparatus should be worn when fighting a fire in which thiram is involved.
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.
Other Information:	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES. Large accumulations of dust and fines associated with industrial processing of bulk material may be a dust explosion hazard.

7. ACCIDENTAL RELEASE MEASURES:

Spills and 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 9.
Environmental Precautions:	Prevent from entering drains, waterways or sewer.

8. HANDLING AND STORAGE:

Precautions for Safe Handling:	Avoid generating dusts while handling the product and mixing. If dusts are generated, it is advisable to wear a dust mask, refer Section 9. 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.
Conditions for Safe 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.

9. EXPOSURE CONTROLS / PERSONAL PROTECTION:

National Exposure Standards:	Name	Stel		TWA		Footnote
		<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	
	Thiram			1		
Engineering Controls:	Handle in well ventilated areas, generally natural ventilation is adequate. Avoid generating and inhaling dusts.					
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.					
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.					
Requirements concerning special training:	Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.					

10. PHYSICAL AND CHEMICAL PROPERTIES:

Form:	Solid
Appearance:	White granules
Solubility in Water:	Disperses in water. 18mg/l thiram
Specific gravity:	1.29
pH Value:	8 in 1% dispersion
Vapour Pressure:	2.3 mPa @ 25°C for thiram
Octanol / Water Partition Coefficient	Kow Log P is 1.73 for thiram
Flammability:	Danger of dust explosion.

II. STABILITY AND REACTIVITY:

Chemical Stability:	Stable under normal conditions.
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Incompatible Materials:	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 , auto ignition temperature -100°C.
Hazardous Reactions:	Keep away from strong oxidizing agents.
Hazardous Polymerisation:	Hazardous polymerisation is not possible.

12. 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 mist.
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.
Eyes:	The concentrate will cause irritation to the eyes.
Chronic Effects:	Evidence from animal studies indicate that repeated or prolonged exposure to thiram can result in neurotoxic effects.
Acute Toxicity – Oral:	LD50 (rat) >1800mg/kg for thiram
Acute Toxicity – Dermal:	LD50 (rat) >2000mg/kg
Acute Toxicity – Inhalation:	LC50 (rat)(4hr) 3.46mg/l for thiram
Eye Irritation:	Moderate eye irritant.
Skin Irritation:	Moderate skin 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 0.4mg/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 Office of Chemical Safety, 'ADI List', December 2008).

13. ECOLOGICAL INFORMATION:

Persistence / Degradability:	Average field half-life of thiram is 15 days.
Mobility:	Rapid degradation in soil prevents significant downward movement under normal conditions.
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.
Acute Toxicity – Fish:	The following data is for thiram: LC50 (96hr) for rainbow trout is 0.046mg/l
Acute Toxicity – Daphnia:	LC50 (48hr) for daphnia is 0.011 mg/l
Acute Toxicity – Other organisms:	LD50 for mallard ducks is >2000mg/kg for thiram Bees: not toxic to bees – LD50 >100 µg/bee.

14. 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 (ChemClear®). Any seed treated with Melpat Thiram 800WG 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:	Single rinse before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. Puncture and deliver empty packaging for appropriate disposal to an approved waste management facility. If an approved waste management facility is not available bury the empty packaging 500mm below the surface in a surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.

15. TRANSPORT INFORMATION:

Storage and Transport:	Considered non dangerous for road and rail transport (in packaging) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01. For bulk shipments as Class 9, use UN3077, HazChem code 2Z.
UN Number (Sea Transport):	3077
IMO Class / Packaging Group:	Class 9 Packaging Group III
IMO Marine Pollutant:	Marine Pollutant
IMO Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains thiram)

16. REGULATORY INFORMATION:

Poisons Schedule:	S6
Packaging & Labelling:	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category:	Harmful, Irritant

For further details, please contact Melpat International Pty Ltd:

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