



Material Safety Data Sheet

This material is hazardous according to criteria of NOHSC.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

1. Identification of the substance/preparation and of the company/undertaking

Product Name: P-PICKEL T LIQUID FUNGICIDAL SEED DRESSING

Synonyms: Crop Care MSDS No. 42383

Supplier: Crop Care Australasia Pty Ltd

ABN: 061 362 347

Street Address: 77 Tingira Street
Pinkenba, Queensland 4008
Australia

Telephone Number: +61 7 3867 9100

Facsimile: +61 7 3867 9110

Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. Composition/information on ingredients

Product Description: Fungicidal seed dressing.
Opaque, bright green, viscous liquid with virtually no odour.

Other ingredients determined not to be hazardous	50%	-
Thiram 137-26-8	32% (360 g/L)	R20/22, R36/37, Muta. Cat. 3 R40, R43
Thiabendazole 148-79-8	18% (200 g/L)	Non hazardous

3. Hazards identification

Risk Phrases: Harmful by inhalation and if swallowed. Irritating to eyes and respiratory system. Possible risk of irreversible effects. May cause sensitisation by skin contact. Toxic to aquatic organisms.

Poisons Schedule: S6 Poison.

4. First-aid measures

Product Name: P-PICKEL T LIQUID FUNGICIDAL SEED DRESSING

Substance No: 000504238301

Issued:

17/07/2002

Version:

1



Material Safety Data Sheet

For advice, contact a Poisons Information Centre (Phone eg. Australia 131 126; New Zealand 03 474 7000) or a doctor.

- Inhalation:** Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.
- Skin Contact:** If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.
- Eye Contact:** If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Ingestion:** Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Avoid giving alcohol. Seek medical advice.
- Notes to physician:** Treat symptomatically.

5. Fire-fighting measures

- Specific Hazards:** Non-combustible material.
- Fire-fighting advice:** Not combustible, however following evaporation of the water component of the material, the residual material can burn if ignited. On burning will emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.
- Suitable Extinguishing Media:** Not combustible, however, if material is involved in a fire use: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. Accidental release measures

SMALL SPILLS: Wear protective equipment to prevent skin and eye contact. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal.

LARGE SPILLS: Wear protective equipment to prevent skin and eye contact and breathing in vapours. Avoid breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops or waterways has occurred advise emergency services or State Department of Agriculture.

7. Handling and storage

- Handling advice:** Avoid skin and eye contact and breathing in vapour, mists, and aerosols.
- Storage advice:** Treated seed when stored should be kept apart from other seed and the containers should be clearly

Product Name: P-PICKEL T LIQUID FUNGICIDAL SEED DRESSING
Substance No: 000504238301

Issued:

17/07/2002

Version:

1



Material Safety Data Sheet

marked to indicate the contents have been treated with this product. Containers which have held treated seed should not be used for any other purpose.

Store in the closed, original container in a cool well-ventilated area. Do NOT store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers.

8. Exposure controls/personal protection

Occupational Exposure Limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission.

Engineering Control Measures:

IN THE WORKPLACE: Use in well ventilated areas. Keep containers closed when not in use.

Personal Protective Equipment:

Orica Personal Protection Guide No. 1, 1998: H - OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

MANUFACTURE, PACKAGING AND TRANSPORT: Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

PREPARATION AND USE OF PRODUCT: Avoid contact with eyes and skin. Do not inhale spray mist. Wash hands after use.

9. Physical and chemical properties

Physical state:	Liquid
Colour:	Opaque Green
Odour:	Mild
Solubility:	Dispersible in water.
Specific Gravity:	1.13
Relative Vapour Density (air=1):	N Av
Vapour Pressure (20 °C):	N Av
Flash Point (°C):	N App
Flammability Limits (%):	N App
Autoignition Temperature (°C):	N App
% Volatile by Weight:	N Av
Solubility in water (g/L):	N Av
Melting Point/Range (°C):	N App
Boiling Point/Range (°C):	N Av
Decomposition Point (°C):	N Av
Sublimation Point (°C):	N App
pH:	N Av
Viscosity:	N Av
Evaporation Rate:	N Av

Product Name: P-PICKEL T LIQUID FUNGICIDAL SEED DRESSING
Substance No: 000504238301

Issued:

17/07/2002

Version:

1



Material Safety Data Sheet

Partition Coefficient: LogPow (Thiram): 1.73
LogPow (Thiabendazole): 2.39

10. Stability and reactivity

Stability: Unstable under acidic conditions.

11. Toxicological information

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing may result in nausea, vomiting, diarrhoea and abdominal pain, dizziness, palpitations, rapid pulse rate, difficulty in breathing, lowering of blood pressure and dermatitis of the skin. Ingestion of alcohol will exacerbate symptoms of exposure.

Eye contact: An eye irritant.

Skin contact: Contact with skin may result in irritation. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis.

Inhalation: Material is irritant to the mucous membranes of the respiratory tract (airways). Breathing in high concentrations may result in the same symptoms described for 'INGESTION'.

Long Term Effects:

Available evidence from animals studies indicate that repeated or prolonged exposure to thiram could result in effects on the central nervous system and liver.

Toxicological Data:

No LD50 data available for the product. However, for constituent(s)

THIRAM:

Oral LD50 (rat): 560-1278 mg/kg.
Dermal LD50 (rabbit): >2000 mg/kg.
Inhalation LC50 (rat): 4.42 mg/L/4hr.
SKIN: Mild irritant. A skin sensitiser (guinea pig).
EYES: Moderate irritant (rabbit).

Chronic studies in animals have shown thiram to cause liver effects such as increased liver weight and some functional changes. Effects have also been reported on the central nervous system following prolonged exposure in animals with ataxia (weakness) and paralysis of the hind legs reported.

Thiram was overall positive in tests for mutagenicity. Although laboratory studies in animals have shown no evidence for carcinogenicity.

Embryotoxic and teratogenic effects have been observed in mice, rats and hamsters following oral doses at maternally toxic levels.

ADI (Acceptable Daily Intake) for humans is 0.004 mg/kg bw/day.

For THIABENDAZOLE:

Product Name: P-PICKEL T LIQUID FUNGICIDAL SEED DRESSING
Substance No: 000504238301

Issued:

17/07/2002

Version:

1



Material Safety Data Sheet

Oral LD50 (rat): 3,100 mg/kg.
Dermal LD50 (rabbit): >2000 mg/kg.
SKIN: Non irritant (rabbit). Not a skin sensitiser (guinea pig).
EYES: Non irritant (rabbit).
ADI for humans is 0.3 mg/kg bw/day.

12. Ecotoxicological information

Avoid contaminating waterways. Both of the active components thiram and thiabendazole are ecotoxic.

Environmental fate, persistence and degradation:

Thiram is readily biodegradable. The half life in sandy soil is 0.5 days.

Thiabendazole undergoes biodegradation, with reported half lives in soil of between 33 and 120 days depending upon soil conditions.

Aquatic toxicity:

Very toxic to aquatic organisms. Risk of bioaccumulation in an aquatic species is low.

Log Octanol/Water Partition Coefficient:	1.73 (Thiram) and 2.39 (Thiabendazole)
48hr LC50 (Daphnia magna):	0.21 mg/L (Thiram) and 0.81 mg/L (Thiabendazole)
96hr LC50 (rainbow trout):	0.128 mg/L (Thiram) and 0.55 mg/L (Thiabendazole)
96hr LC50 (bluegill sunfish):	0.0445 mg/L (Thiram) and 19 mg/L (Thiabendazole)

Terrestrial toxicity:

Harmful to terrestrial species. May be harmful to bees.

Oral LD50 (avian): 673 - >2,800 mg/kg (Thiram) and >2,250 mg/kg (Thiabendazole)

13. Disposal considerations

Containers which have held treated seed should not be used for any other purpose. Triple rinse containers before disposal, and add rinsings to tank mix. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If not available bury the containers below 500 mm 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

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Product Name: P-PICKEL T LIQUID FUNGICIDAL SEED DRESSING
Substance No: 000504238301

Issued:

17/07/2002

Version:

1



Material Safety Data Sheet

This material is classified as a Marine Pollutant (P) according to the International Maritime Dangerous Goods Code.

UN No: 3082
Class-primary: 9 Miscellaneous Dangerous Goods
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS THIRAM AND THIABENDAZOLE)

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 3082
Class-primary: 9 Miscellaneous Dangerous Goods
Packing Group: III
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS THIRAM AND THIABENDAZOLE)

15. Regulatory information

Classification: This material is hazardous according to criteria of NOHSC.
Xn: Harmful
Xi: Irritant

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

Safety Phrase(s): S2: Keep out of the reach of children.
S24/25: Avoid contact with skin and eyes.
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.

Poisons Schedule: S6 Poison.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS) or are National Registration Authority (NRA) approved active constituents.

16. Other information

Product Name: P-PICKEL T LIQUID FUNGICIDAL SEED DRESSING
Substance No: 000504238301

Issued:

17/07/2002

Version:

1



Material Safety Data Sheet

In: 'Pesticides Studied in Man'. Ed. Hayes and Wayland, J.Jr. Williams and Wilkins, Baltimore 1982.

In: 'The Pesticide Manual'. 12th Edition. Ed. CDS Tomlin. British Crop Protection Society, 2000.

ADI List, Commonwealth Department of Health and Family Services. 2001.

In: 'The Dictionary of Substances and their Effects'. Ed. Gangolli S. Royal Society of Chemistry, 1999.

Reason(s) for Issue:

5 Yearly Revised Primary MSDS

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Orica Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Orica representative or Orica Limited at the contact details on page 1.

Orica Limited's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

Product Name: P-PICKEL T LIQUID FUNGICIDAL SEED DRESSING
Substance No: 000504238301

Issued:

17/07/2002

Version:

1