

# SAFETY DATA SHEET

## SECTION 1

## IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: **Apparent Thiram/Thiabendazole Fungal Seed Dressing**

**Other Names:** Thiram + Thiabendazole Seed Dressing, a Group 1, M3 Fungicide.  
**Use:** Agricultural seed dressing fungicide.  
**Company:** Apparent Pty Ltd  
**Address:** Suite G.08 762 Toorak Road, Hawthorn East, Vic 3123  
PO Box 3092, Cotham PO, Kew, Vic 3101  
**ACN/ABN:** 143 724 136  
**Telephone Number:** 03 9822 1321  
**Email:** [enquiries@apparentag.com.au](mailto:enquiries@apparentag.com.au)  
**Emergency Contact:** 0411 227 338

## SECTION 2

## HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.  
Not classified as a Dangerous Good according to the ADG Code**

### GHS classification of the substance/mixture

Acute Toxicity – Oral: Category 4.  
Skin Corrosion/Irritation: Category 2.  
Sensitization –Skin: Category 1, 1A, 1B.  
Specific Target Organ Toxicity (Repeated Exposure): Category 2.  
Hazardous to the Aquatic Environment – Long-Term Hazard – Category 1.

**Signal Word:** WARNING

### Hazard statements:

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H320 Causes eye irritation.  
H332 Harmful if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.

### Precautionary Statements:

#### Prevention:

P260 Do not breathe mist, vapours or spray.  
P261 Avoid breathing mist, vapours or spray.  
P264 Wash hands, arms and face thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if feel unwell.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P314 Get medical advice/attention if you feel unwell.  
P321 Specific treatment (see Safety Directions on product label).  
P330 Rinse mouth.

**SECTION 2 HAZARDS IDENTIFICATION (Continued)****Response (Cont):**

P332+P313	If skin irritation occurs: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362	Take off contaminated clothing and Wash before reuse.
P363	Wash contaminated clothing before reuse.
P391	Collect Spillage.

**Disposal:**

P501 Dispose of contents/container in accordance with national regulations.

**Pictograms:****SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

<b>CHEMICAL</b>	<b>CAS NUMBER</b>	<b>PROPORTION</b>
Thiram	137-26-8	360 g/L
Thiabendazole	148-79-8	200 g/L
Other ingredients determined not to be hazardous		Balance

**SECTION 4 FIRST AID MEASURES****FIRST AID**

- Ingestion:** If swallowed DO NOT induce vomiting; seek medical advice immediately and show the product label or contact the Poisons Information Centre on 13 11 26. Rinse mouth thoroughly with water. Do not give anything by mouth to a semi-conscious or unconscious person. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
- Eye contact:** If in eyes, hold eyelids open and wash with clean water until chemical is removed. Seek medical advice.
- Skin contact:** Remove contaminated clothing and wash affected areas thoroughly with soap and water. Launder contaminated clothing before re-use. If irritation persists, seek medical advice.
- Inhalation:** Overexposure by inhalation is improbable. Check for other causes of observed symptoms, move victim to fresh air and seek medical advice.

**Advice to Doctor:** Treat Symptomatically. Avoid giving alcohol – may cause vomiting and shock.

**SECTION 5 FIRE FIGHTING MEASURES**

**Specific Hazard:** Not flammable. Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained.

**Extinguishing media:** Not flammable. Use extinguishing media suitable for surrounding area. Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained.

**Hazards from combustion products:** There is no risk of an explosion from this product under normal circumstances if involved in a fire. Product is unlikely to decompose until heated to dryness. On further heating will emit toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke.

**Precautions for fire-fighters and special protective equipment:** Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated.

**SECTION 6****ACCIDENTAL RELEASE MEASURES**

**Emergency procedures / Material and methods for containment and cleanup procedures:** Wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), elbow-length rubber gloves and face shield or goggles. In the case of spillage, stop leak if safe to do so, and contain spill. Absorb spilled material with absorbent material such as sand, clay or cat litter and dispose of waste as indicated in section 13 or according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep out animals and unprotected persons.

After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Thoroughly launder protective clothing before storage or re-use.

**SECTION 7****HANDLING AND STORAGE**

**Precautions for Safe Handling:** Harmful if absorbed by skin contact or swallowed. Will irritate the eyes, nose, throat and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. Wash hands after use. Seed treated with this product must not be used for animal or human consumption. Bags or other containers which have held treated seed are not to be used for any other purpose.

**Conditions for Safe Storage:** Store in the closed, original container in a cool, dry place out of the reach of children. DO NOT store in direct sunlight. Not classified as a Dangerous Good. This product is a Schedule 5 Poison (S5) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

**SECTION 8****EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Exposure Standards:** Exposure guidelines have not been established for this product by Safe Work Australia, however the following guidelines are for ingredients in this product.

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m <sup>3</sup> )
Thiram	1 mg/m	-

TWA = Time-weight Average. STEL = Short term Exposure Limit.

**Biological Limit Values:**

No biological limit allocated.

**Engineering controls:**

Use in well ventilated areas. Keep containers closed when not in use.

**Personal Protective Equipment (PPE):**

General: It is good practise to wear suitable personal protective equipment (PPE) even though OCSEH have not recommended any PPE in the normal handling of this product. Wash hands after use.

Personal Hygiene: Harmful if absorbed by skin contact or swallowed. Will irritate the eyes, nose, throat and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking.

**SECTION 9****PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Opaque green liquid.
<b>Odour:</b>	Mild odour.
<b>Boiling point:</b>	Approximately 100°C.
<b>Freezing point:</b>	Approximately 0°C.
<b>Specific Gravity:</b>	1.1 approx at 20°C.
<b>Solubility in Water:</b>	Disperses/suspends in water.
<b>pH:</b>	No data available.
<b>Flammability:</b>	Not flammable.
<b>Corrosive hazard:</b>	Not corrosive.
<b>Flashpoint (°C):</b>	Not flammable.
<b>Flammability Limits (%):</b>	Not applicable.
<b>Poisons Schedule:</b>	This product is a Schedule 6 (S6) poison.
<b>Formulation type:</b>	Suspension Concentrate (SC).

**SECTION 10****STABILITY AND REACTIVITY**

**Chemical Stability:** Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

**Conditions to avoid:** Do not store for prolonged periods in direct sunlight.

**Incompatible materials:** Strong acids. Reaction of the concentrate or spray mix with acids will cause carbon disulfide to be formed. Carbon disulfide is a volatile toxic liquid.

**Hazardous decomposition products:** Product is unlikely to decompose until heated to dryness. On further heating may emit toxic fumes.

**Hazardous reactions:** Hazardous polymerisation will not occur.

**SECTION 11****TOXICOLOGICAL INFORMATION**

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

**Potential Health Effects:****ACUTE EFFECTS**

**Ingestion:** Possible symptoms of exposure of the concentrate include: headache, arrhythmia, shortness of breath, nausea and vomiting. Consumption of alcohol increases the toxic effects. Ingestion of Thiram and alcohol together may cause stomach pains, nausea, vomiting, headache, slight fever, and possible dermatitis. Workers exposed to Thiram during application or mixing operations within 24 hours of moderate alcohol consumption have been hospitalized with symptoms.

**Skin:** Prolonged contact with the concentrate may cause irritation. Prolonged or repeated exposure may cause skin sensitization.

**Eye:** The concentrate will cause irritation of the eyes.

**Inhalation:** Not a likely route of exposure when handling the concentrate. May cause irritation to the respiratory tract.

**Long Term Exposure:**

Symptoms of chronic exposure to Thiram in humans include drowsiness, confusion, loss of sex drive, incoordination, slurred speech, and weakness, in addition to those due to acute exposure. Repeated or prolonged exposure to Thiram can also cause allergic reactions such as dermatitis, watery eyes, sensitivity to light, and conjunctivitis. Except for the occurrence of allergic reactions, harmful chronic effects from Thiram have been observed in test animals only at very high doses.

**Mutagenicity:** Thiram has been found to be mutagenic in some test organisms but not in others. Thus, the evidence is inconclusive.

**Carcinogenicity:** The weight of the evidence is that thiram is not carcinogenic.

**Teratogenic effects:** The data suggest that high doses are required to cause teratogenic effects.

**Reproductive effects:** The data suggest that reproductive effects occur at high doses not likely to be experienced by humans.

**Organ toxicity:** Studies have shown evidence of damage to the liver by Thiram in the form of decreased liver enzyme activity and increased liver weight. Thiram may also cause damage to the nervous system, blood, and kidneys.

**Fate in humans and animals:** In the body, carbon disulfide is formed from the breakdown of Thiram and does contribute to the toxicity of Thiram to the liver.

**SECTION 12****ECOLOGICAL INFORMATION**

**Environmental Toxicology:** Thiram is practically nontoxic to birds. Dietary LC<sub>50</sub> of Thiram > 5000 ppm (Japanese quail). Dietary LC<sub>50</sub> = 2800 ppm (pheasants) and 673 ppm (mallard ducks). The LD<sub>50</sub> for the Thiram in red-winged blackbirds > 100 mg/kg. Thiram is highly toxic to fish. The LC<sub>50</sub> = 0.23 mg/L in bluegill sunfish, 0.13 mg/L in trout, and 4 mg/L in carp. Thiram is not expected to bioconcentrate in aquatic organisms. Thiram is nontoxic to bees. Do not feed treated seed, or otherwise expose, to wildlife and domestic animals, particularly birds.

**Environmental Fate:** Thiram is of low to moderate persistence. It is nearly immobile in clay soils or in soils high in organic matter. It is only slightly soluble in water (30 mg/L) and has a strong tendency to adsorb to soil particles. Thiram is not expected to contaminate groundwater. The soil half-life for Thiram is reported as 15 days. Thiram degrades more rapidly in acidic soils and in soils high in organic matter. In a humus sandy soil, at pH 3.5, Thiram decomposed after 4 to 5 weeks, while at pH 7.0, Thiram decomposed after 14 to 15 weeks. Thiram persisted for over 2 months in sandy soils, but disappeared within 1 week from a compost soil. The major metabolites of Thiram in the soil are copper dimethyldithiocarbamate, dithiocarbamate, dimethylamine, and carbon disulfide. In soil, Thiram will be degraded by microbial action or by hydrolysis under acidic conditions. Thiram will not volatilize from wet or dry soil surfaces.

**SECTION 13****DISPOSAL CONSIDERATIONS**

**Spills and Disposal:** Wear prescribed protective clothing and equipment. Keep material out of streams and sewers. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. In rural areas contact ChemClear <http://www.chemclear.com.au> for help with collection of unwanted rural chemicals. 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®).

**Disposal of empty containers:** Triple or preferably pressure rinse containers before disposal. Add rinsings to tank mix. Do not dispose of undiluted chemicals on-site. If not recycling, break, crush, or 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 500 mm below the 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.

**SECTION 14****TRANSPORT INFORMATION**

**Road & Rail Transport:** This product is exempt from classification as a Dangerous Good in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3082. (See special provision AU01).

Apparent Thiram/Thiabendazole is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-

UN 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Thiram). Hazchem code ●3Z. Hazard Identification Number (HIN) 90.

**SECTION 15****REGULATORY INFORMATION**

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 5 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 80399

This product is not classified as a Hazardous Substance under the criteria of Safe Work Australia. (T: Toxic, Xn - harmful, Xi - irritant).

This product is not classified as a Dangerous Good according to the ADG Code (7<sup>th</sup> Ed).

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**SECTION 15 REGULATORY INFORMATION (Continued)****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.

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**SECTION 16 OTHER INFORMATION**

Issue Date: 16 February 2016. Valid for 5 years till 16 February 2021 (First issue).

Key to abbreviations and acronyms used in this SDS:

- ADG Code Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).
- Carcinogen: An agent which is responsible for the formation of a cancer.
- Genotoxic: Capable of causing damage to genetic material, such as DNA.
- Lavage: A general term referring to cleaning or rinsing.
- Mutagen: An agent capable of producing a mutation.
- Myotoxic: Having or being a toxic effect on muscle.
- Pneumonitis: A general term that refers to inflammation of lung tissue.
- PPE: Personal protective equipment.
- Teratogen: An agent capable of causing abnormalities in a developing foetus.
- Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

**References**

1. "Search Hazardous Substances". Safe Work Australia website. (2016).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2009.

*This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.*

*If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.*

End SDS