

SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product: **T-KOTE**
 Chemical Name of Active Ing: Thiabendazole
 Product Use: Fungicide
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Agrisource 2000 Ltd**
 Address: 45 Kitchener Road
 Pukekohe, Auckland

Telephone: +64 9 237 0422
Emergency No: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 6 July 2023 v2

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020.

EPA Approval No: HSR000581

Pictograms



Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to liver and other organs through prolonged or repeated exposure.
Hazardous to the aquatic environment acute/chronic Cat. 1	H400/H410	Very toxic to aquatic life with long lasting effects.

Prevention Code	Prevention Statement-
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P260	Do not breathe fumes, gas, mist, vapours or spray.
P273	Avoid release to the environment.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.

Storage Code	Storage Statement
None allocated	Store in original container tightly closed and in a locked, dry, cool, well-ventilated area, away from feed, seeds and foodstuffs. Avoid temperatures below 0°C and above 35°C.

Disposal Code	Disposal Statement
P501	Product Disposal: Ensure unwanted product is used by another operator strictly in accordance with label directions. Container Disposal: Triple rinse container and add rinsate to spray tank. Dispose of cleaned container at your local AGRECOVERY container collection point. Do not burn. Do not use container for any other purpose. Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMB-ER.
Thiabendazole	50%	148-79-8
Inert ingredients	50%	Proprietary

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

If on Skin In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

If Swallowed Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

If Inhaled Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: May cause damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from products	Product contains combustible organic components and fire will produce black smoke likely to contain hazardous products of combustion. Exposure is likely to be a hazard to health.
Suitable Extinguishing	Dry chemical, fine water spray or carbon dioxide.

media	
Precautions for firefighters and special protective clothing	Wear protective clothing and self-contained breathing apparatus. Do not breathe smoke or gases. Do not allow run-off from firefighting to enter drains and/or water courses.
HAZCHEM CODE	3Z

Section 6. Accidental Release Measures

For emergency responders:

Avoid contact with skin and eyes. Do not inhale spray. Wear long sleeved shirt, long pants, waterproof gloves and safety goggles or face shield. Do not eat, drink or smoke when using. Wash hands and face before meals and after work.

Environmental precautions:

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways. If enters waterways notify authorities.

Methods and material for containment and cleaning up:

In the case of spillage, contain spilled material. Keep out animals and unprotected persons. Vacuum or shovel waste into a drum. To decontaminate spill area, tools and equipment, wash with water. Dispose of drummed wastes in accordance with the requirements of Local Authorities.

Section 7. Handling and Storage
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Precautions for Handling:

- Read carefully and follow all instructions.
- Do not breathe fumes, gas, mist, vapours or spray.
- Avoid release to the environment.
- When mixing or applying, avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves and goggles.
- Do not eat or drink while using.
- Wash hands and face before meals and after work.
- Wash protective clothing after work.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store in original container tightly closed and in a locked, dry, cool, well ventilated area, away from feed, seeds and foodstuffs.
- Store in accordance with the New Zealand Standard for the Management of Agrichemicals (NZS8409).
- Packaging materials: HDPE Plastic Drum

Section 8 Exposure Controls / Personal Protection
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WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA	STEL
	ppm mg/m ³	ppm mg/m ³

None of the components have assigned exposure limits.

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL

is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13TH EDITION.

Engineering Controls

Ensure ventilation is adequate, generally natural ventilation is adequate. Facilities should be equipped with an eyewash facility and safety shower.

Personal Protection Equipment



Eyes	Wear protective goggles.
Hands	Wear PVC elbow-length gloves.
Body	When opening the container, preparing spray and using prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat.
Respiratory	Where insufficient ventilation, use suitable respiratory protection.
General	Avoid inhaling aerosols and vapours. Avoid contact with eyes and skin. Store work clothes and street clothes separately. Wash hand before breaks and at the end of work. Change contaminated protective clothing. Keep away from food, drinks and tobacco.

Section 9 Physical and Chemical Properties

Appearance	Liquid
Colour	White/beige
Odour	Weak aromatic
Odour Threshold	Not available
pH	6.0 – 7.0
Boiling Point	Approx. 100°C
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity or density	Approx. 1.168
Solubility	Soluble in water. Dispersible (20°C)
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Approx. 600 sec (DIN 4 flow cup) (25°C)
Oxidising	Not an oxidiser

Section 10. Stability and Reactivity

Stability of Substance	Stable under normal conditions of use.
Possibility of hazardous reactions	None expected.

Conditions to Avoid	Extreme heat or Cold.
Incompatible Materials	None known.
Hazardous Decomposition Products	May include oxides of carbon and nitrogen, hydrogen chloride, Hydrogen cyanide.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable. LD50 (rat) >5000 mg/kg
Dermal	Not applicable. LD50 (rat) >2000 mg/kg
Inhalation	Not applicable. LC50 (rat) >6.84 mg/L based on ai
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.

Thiabendazole technical has been extensively tested on laboratory mammals and in test-tube systems. The liver was identified as the target organ. No evidence of neurotoxic, mutagenic, teratogenic or reproductive effects was obtained. No carcinogenic potential was noticed in rats.

Section 12. Ecotoxicological Information

Very toxic to aquatic life with long lasting effects.

Product:	
Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	Propiconazole has low to medium mobility in soil.
Other adverse effects	Propiconazole is stable in water. Propiconazole is not persistent in soil, DT50 aerobic soil 40-70days (20°C)

Acute Toxicity - Fish

LC50 = 1.3 mg/litre ,96 hr (Rainbow trout), Very toxic to aquatic organisms

Acute Toxicity - Daphnia

LC50 = 1.9 mg/litre ,48 hr (daphnia magna)

Earthworm Toxicity

LC⁵⁰ >500mg/litre (14 days)

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method:

Triple rinse container and add rinsate to spray tank. Dispose of cleaned container at your local AGRECOVERY container collection site.



Precautions or methods to avoid: Avoid release to the environment.

Section 14 Transport Information

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020



Road, Rail, Sea and Air Transport

UN No	3082
Class - Primary	9
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S (Contains thiabendazole)
Marine Pollutant	Yes
Special Provisions	If the product's individual container is below 5L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

Section 15 Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: HSR000581

HSW (HS) Regulations 2017	Trigger Quantity
Signage Trigger Quantities (Schedule 3)	100L
Emergency Response Plan (Schedule 5)	100L
Secondary Containment (Schedule 5)	100L
Tracking (Schedule 26)	Not required
Certified Handlers	Not required
HSNO Additional Controls (Restrictions of use)	
None known.	
ACVM Act and Regulations	
See www.foodsafety.govt.nz for registration Conditions	P8383

Section 16 Other Information

Glossary

Cat	Category
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices April 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

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Please contact the New Zealand distributor, if further information is required.

Issue Date: 6 July 2023 Review Date: 6 July 2028