

SAFETY DATA SHEET

Product Name: Thiram Fungus Control







Issue Date: 19/06/2018

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1. PRODUCT AND COMPANY INFORMATION

Product Name:	Thiram Fungus Control
Relevant identified uses:	Fungicide
Molecular Formula:	Mixture
Supplier:	Kiwicare Corporation Limited; Agrisource Limited
Street Address:	225 Maces Road, Bromley, Christchurch, 8062 New Zealand
Postal Address:	P.O Box 15050, Aranui, Christchurch, 8643 New Zealand
Telephone	+64 3 389 0778 and +64 9 237 1081
Email:	info@kiwicare.co.nz
Website:	www.kiwicare.co.nz
Emergency Contact Numbers:	0800 764 766 (0800 POISON)
National Poisons Centre:	0800 764 766 (0800 POISON)

2. HAZARDS IDENTIFICATION

HSNO Hazard Classification	Transport of Dangerous Goods Pictogram	GHS Pictogram	Signal word	Hazard statement code	Precautionary statement codes			
					Prevention	Response	Storage	Disposal
6.1B (dermal)			Danger	H310	P102 P262 P264 P270 P280	P302 + P350 P310 P322 P361 P363	P405	P501
6.1B (inhalation – vapours, dusts or mists)			Danger	H330	P102 P260 P271 P284	P304 + P340 P310 P320	P403 + P233 P405	P501
6.1C (oral)			Danger	H301	P102 P103 ^P P264 P270	P101 ^P P301 + P310 P321 P330	P405	P501

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6.4A ^l	Not applicable for the UN RTDG Model Regulations		Warning	H319	P103 ^b P264 P280	P305 + P351 + P338 P337 + P313	No storage statements	P501
6.5B	Not applicable for the UN RTDG Model Regulations		Warning	H317	P103 ^b P261 P272 P280	P302 + P352 P333 + P313 P321 P363	No storage statements	P501
6.8B	Not applicable for the UN RTDG Model Regulations		Warning	H361	P103 ^b P201 P202 P281	P308 + P313	P405	P501
6.9B (Repeated exposure)	Not applicable for the UN RTDG Model Regulations		Warning	H373	P103 ^b P260	P314	No storage statements	P501
9.1A			Warning	H400/H410 ^m	P103 ^b P273	P391	No storage statements	P501
9.3B	Not applicable for the UN RTDG Model Regulations		No Signal Word	H432	P103 ^b P273	P391	No storage statements	P501

Dangerous Goods Class: 6 (subsidiary class 9)

Packaging Group: II

Signal word: Danger

Hazardous Substance (HSNO) Codes: 6.1B (Inhale, dermal; acute toxicity level 2)
6.1C (oral; acute toxicity level 3)
6.4A (Eye irritant)
6.5B (dermal sensitization)
6.8B (Suspected for causing human reproductive toxicity)
6.9B (Harmful to human target organs)
9.1A (Very ecotoxic to the aquatic environment)
9.3B (Toxic to terrestrial vertebrates)

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Hazard Statement:	H310: Fatal in contact with skin. H330: Fatal if inhaled. H301: Toxic if swallowed. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H361: Suspected of damaging fertility or the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. H400/410: Very toxic to aquatic life. H432: Toxic to terrestrial vertebrates.
Precautionary Statements:	P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P103: Read label before use. P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P260: Do not breathe dust P261: Avoid breathing dust P262: Do not get in eyes, on skin, or on clothing P264: Wash 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 aquatic environment. P280: Wear protective gloves/protective clothing /eye protection/face protection*. P281: Use personal protective equipment as required. P284: Wear respiratory protection.* P310: Immediately call a POISON CENTER or doctor/physician.

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P314: Get medical advice/attention if you feel unwell.

P320: Specific treatment is urgent (see product label)

P321: Specific treatment on product label

P322: Specific measures on product label

P330: Rinse mouth.

P361: Remove/Take off immediately all contaminated clothing

P363: Wash contaminated clothing before reuse.

P391: Collect spillage.

P405: Store locked up.

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302+350: IF ON SKIN: Gently wash with plenty of soap and water.

P302+352: IF ON SKIN: Wash with plenty of soap and water.

P304+340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P308+313: IF exposed or concerned: Get medical advice/ attention.

P333+313: If skin irritation occurs: Get medical advice/ attention

P337+313: If eye irritation persists: Get medical advice/attention.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405: Store locked up.

P403+233: Store in a well-ventilated place. Keep container tightly closed.

P501: In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended Use: Granular Fungicide

Appearance: Whitish dispersible granule

Ingredients

Ingredients	CAS #	Content %
Thiram	137-26-8	80 %
Other ingredients	NA	To 100%

4. FIRST AID MEASURES

General information and first aid measures:

TOXIC – may be fatal if swallowed inhaled or absorbed through the skin. HARMFUL - May cause irritation or sensitization from prolonged skin contact. Avoid skin contact. May cause eye irritation. Avoid eye contact. Repeated oral exposure at high doses may cause damage to heart, kidneys and cardiovascular system. If swallowed DO NOT induce vomiting. For advice, contact the National Poisons Centre 0800 Poison (0800 764 766) or a doctor immediately. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. DO NOT SCRUB THE SKIN. If concentrate is splashed in the eyes, flush with running water for at least 15 minutes. Take to hospital without delay.

Ingestion:

Rinse mouth. Do NOT induce vomiting. Seek medical advice or call NZ Poisons Centre on 0800 764 766. If medical advice is needed have product label at hand.

Eye Contact:

Hold eyelids apart and flush the eye continuously with running water for at least 15 minutes. Get medical attention.

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4. FIRST AID MEASURES

Skin Contact:	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water and soap. Wash clothing before reuse. Destroy contaminated shoes and other contaminated leather articles such as belts and watchbands.
Inhalation:	Remove patient to fresh air. If not breathing, give artificial respiration, preferably mouth-to-nose. Get medical attention if symptoms develop.
Advice for Medical Doctors:	Treat symptomatically. Call a doctor or poison control centre for guidance, or call NZ Poisons Centre on 0800 764 766.

5. FIRE FIGHTING MEASURES

Specific Hazards:	Formation of toxic gases may occur if heated such as carbon monoxide, and other unidentified organic and inorganic compounds.
Suitable Extinguishing Media:	Extinguish fires with dry chemical or CO ₂ . During a fire toxic fumes may be released. Cool sealed drums with water to prevent rupture due to thermal expansion. Contain run-off. Keep non-involved persons away.
Fire Fighting Advice:	Wear PVC protective clothing and breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away and move all other personnel to windward side of fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later.

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6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:	Prevent further spillage. Sweep up solids without generating dust.
Personal precautions:	Wear overalls, chemical resistant gloves, boots and safety goggles. Wash down affected area with water plus detergent.
Minor Spills (Up to 20 kg):	Wear protective clothing. Clear area of unprotected personnel. Contain spill and collect. Do not allow product or washings to enter the waterways or sewer.
Major Spills (more than 20 kg):	<p>Wear protective clothing. Clear area of unprotected personnel. Contain spill and collect. Do not allow product or washings to enter the waterways or sewer. If spill does enter waterway contact local authority. Contaminated absorbent and wash water should be disposed of according to local and national regulations.</p> <p>Absorb and collect washings and place in the same sealable container for disposal. Seek advice from the local authority regarding disposal.</p>

7. HANDLING AND STORAGE

Precautions for safe handling:	When mixing or applying, avoid 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. Flush spray equipment thoroughly with water after use.
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7. HANDLING AND STORAGE

Conditions for safe Storage including incompatibilities:

Store in original container tightly closed and in a locked, dry, cool, well ventilated area, away from feed, seeds and foodstuffs. This product is classified under HSNO as 9.1A, and storage of certain quantities may require bunding and signage. See the PRODUCT SAFETY CARD for further information. When stored appropriately this product should show no significant degradation for 2 years from date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

Protection against fire and explosion:

Keep away from heat sources although the substance is not flammable. The product is not explosive. Keep away from oxidizing agents.

Packaging materials:

(include any legislative requirement and compatibility issues)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standards:

See 'Exposure limits' below (Workplace Exposure Standards and Biological Exposure Indices 8th edition). No exposure limits have been specifically designed for this product.

Engineering Controls:

Handle in well ventilated areas, generally natural ventilation is adequate. Wear suitable protective gloves (e.g. Polyvinyl chloride – PVC). After contamination with product change the gloves immediately. Keep away from foodstuffs, beverages and feed. Use in well-ventilated area with local exhaust. Wash hands at the end of work.

Hand protection:

Suitable chemical resistant gloves are recommended for applicants.

Eye protection:

Wear safety glasses or full face shield if splashes are likely to occur.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Body protection:	Body protection must be chosen depending on activity and possible exposure, for example When opening the container, preparing and using product, wear safety goggles, waterproof gloves, cotton overalls buttoned at neck and wrists, boots and approved half face mask.
General safety and hygiene measures:	Do not eat, drink or smoke while using. Remove protective clothing and wash face and hands thoroughly before meals and after work. Wash protective clothing daily after work.
Environmental Exposure Controls:	Avoid / minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

T Substance	CAS #	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Thiram	[137-26-8]		1		

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour:	Whitish dispersible granule
Solubility:	Miscible
Vapour pressure:	Negligible at room temperature
Specific Gravity:	1.14 g/ml @20°C
Flash Point:	>93 °C non-flammable
pH Value:	8.0
Chemical Family:	Thiocarbamate pesticides
Exposure Standards (TLV-TW):	Refer to section 8
Engineering Controls:	Refer to section 8

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10. STABILITY AND REACTIVITY

Stability & Chemical reactivity:	When stored appropriately this product should show no significant signs of degradation for 2 years from date of manufacture.
Incompatibility or conditions to be avoided:	Avoid strong oxidising agents. Avoid heat, sparks and open flame. Decomposes under acidic conditions. Product may deteriorate on prolonged exposure to heat, air or moisture. Reacts vigorously with oxidising material. Do not mix with Bordeaux mixture, copper compounds, lime sulphur or alkaline materials such as hydrated lime.
Corrosive Properties:	None corrosive.
Thermal Decomposition:	The formation of toxic/irritant gases/vapours may occur if heated.

11. TOXICOLOGICAL INFORMATION

The relevant hazard classes on ingredient:

Thiram (137-26-8):	HSNO 6.1B(inhale), 6.1C(oral); 6.4A; 6.5B; 6.8B; 6.9B; 9.1A; 9.3B
<u>For the substance (final product):</u>	HSNO 6.1B(inhale, dermal), 6.1C(oral); 6.4A; 6.5B; 6.8B; 6.9B; 9.1A; 9.3B
Skin corrosion/irritation:	Unlikely to cause skin irritation.
Serious eye damage/eye irritation:	May cause eye irritation.
Respiratory or skin sensitization:	May cause skin sensitization.
Germ cell mutagenicity:	Not mutagenic.
Carcinogenicity:	Not carcinogenic.
Reproductivity:	Suspected to be a reproductive toxicant.

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11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	Acute oral $50 < LD_{50} < 300$ mg/kg (rat) Acute dermal $50 < LD_{50} < 200$ mg/kg (rat) Acute inhalation $0.05 < LD_{50} < 0.5$ mg/kg (rat)
Chronic Toxicity:	May cause target organ toxicity via repeated exposure.

12. ECOTOXICITY INFORMATION

Environmental fate:	In plants the major metabolite is ethylene thiourea, followed by ethylene thiuram monosulphide, and presumably ethylene thiuram disulphide & sulphur.
Bio-accumulative potential	This material has a small potential to bioaccumulate in Aquatic species.
Basis for assessment	Ecotoxicological data have not been determined specifically for this product. Data is for the the active ingredient.
Ecotoxicity:	
Fish	LC50 (96 hours) common mirror coloured carp = 0.3 µg/L
Algae (scenedesmus subspicatus)	EC50 Selenastrum caprocornutum (5D) = 0.045 ppm
Rabbits:	LD -50 rabbit oral 210 mg/kg
Other Organisms:	Not toxic to bees.
Other :	Non phytotoxic

13. DISPOSAL CONSIDERATIONS

Waste treatment – recommendation:	In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001.
Container Disposal:	Empty containers can be sent to landfill after cleaning if in compliance with local and national regulations.

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14. TRANSPORT INFORMATION

Road, Rail; Marine and Air

UN Number:	2771
Dangerous Goods Class:	Class 6 (subsidiary class 9)
Hazchem Code:	2XE
Packaging Group:	II
Marine pollutant:	Yes
Maximum transport quantity:	250 Kg
Proper Shipping Name:	Thiocarbamate pesticides, solid, toxic (ADR/RID; IMDG; IATA/ICAO)
Segregation:	Store in a well-ventilated place. Keep container tightly closed. Store locked up.

15. N.Z. REGULATORY INFORMATION

EPA HSNO Approved Number:	HSR000738
HSNO Controls:	Refer to HSR000738
HSNO Classifications:	6.1B (Inhale, dermal; acute toxicity level 2) 6.1C (oral; acute toxicity level 3) 6.4A (Eye irritant) 6.5B (dermal sensitization) 6.8B (Suspected for causing human reproductive toxicity) 6.9B (Harmful to human target organs) 9.1A (Very ecotoxic to the aquatic environment) 9.3B (Toxic to terrestrial vertebrates)
ACVM Approved Number:	P003056

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To avoid risks to man and the environment, comply with the instructions for use.

This information should be considered when making any hazard assessment.

Classification and labelling according to Regulation:

(EC) No 1272/2008 [EU-GHS/CLP]

16. OTHER INFORMATION

SDS date of preparation:	03 / 08 / 2017
SDS date of revision:	03 / 08 / 2022
Emergency Contact	24 Hours
Work Hours	National Poisons Centre
Kiwicare Corporation	PO Box 913
225 Maces Road	Dunedin
PO Box 15050	Tel: 0800 764 766 (POISON)
Christchurch	
Tel: (03) 389 0778	
Fax: (03) 389 0669	

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16. OTHER INFORMATION

All Safety Data Sheets are subject to review and should not be left longer than five years before an update is obtained.

For further information visit the Kiwicare web site, www.kiwicare.co.nz, or contact the supplier Agrisource Limited.

The information in this document should be made available to all who may handle the product. For proper and safe use of this product, please refer to the product label.

This information is based on data believed by Kiwicare Corporation Limited to be accurate at the time of writing. It is given in good faith but no warranty expressed or implied is made as to its accuracy, completeness or otherwise. Every person dealing with the materials referred herein does so at their own risk absolutely and must make independent determinations of suitability and completeness of information from all sources to ensure their proper use.

Attention is drawn to the application and safety instructions set out on the label. This sheet is not a substitute for safety, hazard or application instructions set out on the label. As Kiwicare Corporation Limited and their distributors have no control over storage or use of this product no liability for accident or damage will be accepted.

Abbreviations:

ADR: European agreement concerning the international carriage of dangerous goods by Road.

CLP: Classification, Labelling and Packaging

IMDG: International Maritime Dangerous Goods.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail.

GHS: Global Harmonized System

EU: European Union

EC: European Commission

TLV: Threshold Limit Value

TWA: Time Weighted Average

STEL: Short-Term Exposure Limit

H Phrase: Hazard phrase

P Phrase: Precautionary phrase

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