Alchemy AGENCIES

THIRAM TECH

Date of issue: 28 October 2026 NZ Safety Data Sheet

1. Identification of the Substance/Mixture and Supplier.

Product Name:	Thiram Tech
Uses:	Agrichemical
Supplier:	Alchemy Agencies Ltd Level 2/20 Centre Street Freemans Bay, Auckland 1010 New Zealand.
Telephone:	+64 9 377 0613
Email:	safety@alchemyagencies.co.nz
Emergency Telephone:	0800 734 607 (Ixom – 24 hrs)
National Poisons Centre Tel:	0800 POISON (0800 764766) – 24 hrs

2. Hazards Identification.

HSNO Status: Classified as Hazardous according to the criteria of HSNO.

DG Status: Classified as Dangerous Goods according to NZS5433

Hazardous Status: Classified as Hazardous according to the criteria of HSNO.

HAZARD CLASSIFICATIONS	HAZARD STATEMENTS	GHS Pictogram
Acute toxicity: Inhalation, Cat 3	H331 Toxic if inhaled.	
Acute toxicity: Oral, Cat 3	H301 Toxic if swallowed.	
Serious eye damage/irritation, Cat 2	H319 Causes serious eye irritation.	
Skin sensitisation, Cat 1	H317 May cause an allergic skin reaction.	
Reproductive toxicity, Cat 2	H361 Suspected of damaging fertility or the unborn child.	
STOT-RE, Cat 2	H373 May cause damage to organs through prolonged or repeated exposure.	
Aquatic toxicity (Acute), Cat 1	H400 Very toxic to aquatic life.	
Aquatic toxicity (Chronic), Cat 1	H410 Very toxic to aquatic life with long lasting effects.	
Agrichemical - Hazardous to terrestrial vertebrates	Hazardous to terrestrial vertebrates.	N/A

Signal Word:	DANGER

PREVENTION STATEMENTS

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.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area. 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. P284 Wear respiratory protection.
RESPONSE STATEMENTS
P101 If medical advice is needed, have product container or label at hand. P308 + P313 IF exposed or concerned: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell. P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330 Rinse mouth. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P363 Wash contaminated clothing before reuse. P391 Collect spillage.
STORAGE STATEMENTS
P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
DISPOSAL STATEMENTS

P501	Do not let this product enter the environment. Do not dispose of in waterways or sewers. Dispose of this material and its container as hazardous waste, via a licensed facility. See local council for disposal/recycling information.

3. Composition/Information on Ingredients.

Chemical Entity	CAS Number	Proportion %w/w
Thiram	137-26-8	~97
Balance of ingredients: Determined to be non-hazardous, or below hazardous threshold		

4. First Aid Measures.

Swallowed	If swallowed do NOT induce vomiting. Give water to drink. Get medical attention immediately.
Inhaled	If inhaled, move the victim to fresh air immediately. Begin artificial respiration if breathing has stopped. Obtain medical attention immediately.
Eye Contact	If contacted in the eyes, wash out immediately with water. Obtain medical attention if irritation occurs.
Skin Contact	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Get medical attention if symptoms occur.
Further Information	For advice contact the National Poisons Centre – 0800 POISON (0800 764 766) – or a doctor, immediately.

5. Fire-Fighting Measures.

Suitable extinguishing media	In case of fire, use water spray (fog), foam, dry chemical or CO_2.
Unsuitable extinguishing media	High volume water jet.
Hazards from the substance	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion	Decomposition products may include:

products	Carbon oxides, Nitrogen oxides, Other noxious substances.
Special precautions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures.

Personal precautions	Wear appropriate Personal Protective Equipment (see section 8). Provide adequate ventilation.
Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Spill	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and sweep or shovel up into a container for disposal according to local regulations (see section 13). Dispose of via a licensed hazardous waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

7. Handling and Storage.

Handling	Wear appropriate PPE, and ensure there is adequate ventilation and extraction in the work area. Avoid skin or eye contact, or breathing in the product. Wash hands thoroughly with soap and water after handling and before eating, drinking, using tobacco, using the toilet or applying cosmetics. Take off contaminated clothing and shoes immediately. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. As soon as practical, wash thoroughly and change into clean clothing.
Storage	Keep container dry and tightly closed, in a cool, well-ventilated area, away from direct sunlight. Do not transport or store below -7°C. Do not transport or store above 49°C.

8. Exposure Control/Personal Protection

Exposure Standards – no NZ WES data

Product/Ingredient	WES/TWA	WES/STEL	Reference
Thiram	-/0.2mg/m^3		NZ-WES

Engineering Controls	General ventilation and local exhaust should be suitable to keep dust concentrations minimised. Ventilation equipment should be explosion-proof when operating in flammable zones.
Personal Protection	
Respiratory	Wear a dust respirator.
Eyes	Wear safety glasses.
Hands	Wear chemical gloves – PVC, Polychlorpropene or Nitrile.
Other	Wear overalls or dust coat. Use PVC apron when handling large quantities.

9. Physical and Chemical Properties

PROPERTY	SPECIFICATION
Physical state	Powder/Solid
Colour	White to off white
Odour	Very faint odour
Odour threshold	No data
Refractive Index	1.677
Surface Tension	67.8 dyne/cm
pH	No data
Melting Pt/Freezing Pt	156-158°C
Initial Boiling Pt and Boiling Range	307.4°C
Flash Pt	139.7°C
Flammability (solid/gas)	No data
Upper/Lower Flammability or Explosive limits	No data
Vapour pressure	0.000726 mmHg at 25°C
Vapour Density	No data
Relative Density	1.335 g/cm^3
Water Solubility	16.5 mg/L at 20°C
Partition Coefficient: n-octanol/water	No data
Auto Ignition temperature	No data
Decomposition temperature	No data
Viscosity	No data

10. Stability and Reactivity

Stability	The product is stable
Possibility of hazardous reactions	With acids carbon disulphide and hydrogen sulphide may evolve.
Conditions to avoid	Excessive heat and fire.
Incompatible materials	Acids, oxidizing agents, copper.
Hazardous decomposition products	Thermal decomposition nitrogen oxides (NOx), Sulphur oxides.

11. Toxicological Information

Original data sourced from CCID

Classification:	Acute Oral Toxicity – Category 3
Health Effects:	Toxic if swallowed
Reference:	Dose Descriptor: LD50 Value: 210 mg/kg bw Oral Route SPECIES: Rabbit ENDPOINT: LD50 VALUE: 210 mg/kg REFERENCE SOURCE: [Worthing, C.R. and S.B. Walker (eds.). The Pesticide Manual - A World Compendium. 8th ed. Thornton Heath, UK: The British Crop Protection Council, 1987. 807]**PEER REVIEWED** [HSDB]
Classification:	Acute Inhalation Toxicity – Category 3
Health Effects:	Toxic if inhaled

Reference:	Physical Form: inhalation: dust / mist Dose Descriptor: LC50 Value: 0.5 mg/L air Oral Route SPECIES: Rabbit ENDPOINT: LD50 VALUE: 210 mg/kg REFERENCE SOURCE: [Worthing, C.R. and S.B. Walker (eds.). The Pesticide Manual - A World Compendium. 8th ed. Thornton Heath, UK: The British Crop Protection Council, 1987. 807]**PEER REVIEWED** [HSDB]
Classification:	Eye Irritant – Category 2
Health Effects:	Causes serious eye irritation.
Reference:	SPECIES: RESULT: It is also an irritant of the eyes and respiratory tract [099,269]. It may cause lacrimation [401]. REFERENCE SOURCE: [099] Grant, W. Morton, M.D. Toxicology of the Eye. 3rd Ed. Charles C. Thomas, Publisher. Springfield, IL. 1986. p. 913. [269] Lenga, Robert E. The Sigma-Aldrich Library of Chemical Safety Data. Edition 1. Sigma-Aldrich Corporation. Milwaukee, WI. 1985. p. 1687, #A. [401] Nutt, A. R. Toxic Hazards of Rubberm Chemicals. Elsevier Applied Science Publishers. New York. 1984. pp. 45, 47, 90-91. [NTP]
Classification:	Skin Sensitiser – Category 1
Health Effects:	May cause an allergic skin reaction
Reference:	Contact Sensitisation REMARK: Guinea pig maximization test by Matsushita (3) : intradermal 5%, epidermal 25";positive reaction incidence, 5/10 at challenge conc. 2", 4/10 at challenge conc. 0.5%. Lymphocite transformation test (LTT) by Kimber (4) : both patients local lymphocyte and human serum albumin modified with dimethyldithiocarbamoyl subsitutuent reacted to Thiuram mix, TMTD and TMTM. The results in LTT was coincided with those in human patch testing. REFERENCE SOURCE: 3. Matsushita T, et al : Experimental study on contact hypersensitivity caused by dithiocarbamate fungicides ferbam, ziram and their related compounds, Acta Med Univ Kagoshima 20 ; 99-106, 1978 4. Kimber I, et al : Lymphocyte transformation and thiuram sensitization, Contact Dermatitis 24 ; 164-71, 1991. [Environ Dermatol 2: 64-65, 1994] NOTE: Sensitiser from 1%. [NOHSC]
Classification:	Reproductive/Development Toxicant – Category 2
Health Effects:	Suspected of damaging fertility or the unborn child.
Reference:	No data.
Classification:	STOT-RE – Category 2
Health Effects:	May cause damage to organs through prolonged or repeated exposure.
Reference:	Repeated dose toxicity Oral Route Primary Organ Effected: Cardiovascular system (heart/vascular system) Secondary Organ(s) Effected: Hepatotoxicity (liver) Neurotoxicity (nervous system) Renal toxicity (Kidney) ... Diets containing 0%, 0.01% or 0.1% tetramethyl thiuram disulfide

	/were fed/ to male and female rats. Eight of twenty-four female rats fed the 0.1% diet consumed 66.9 mg/kg and developed ataxia and paralysis of the hindlimbs between 5 and 19 months of feeding. Poor body weight gain and alopecia were also observed in these animals. In a second experiment, 4 of 24 female rats consuming 65.8 mg/kg were also paralyzed while 9 other animals showed abnormal hindlimb clasping. Female rats consuming 25.5 or 66.9 mg/kg of tetramethyl thiuram disulfide which were not ataxic had significant differences in hindlimb stride width and stepping angle. Impaired jumping and climbing ability in females receiving 66.9 mg/kg and increased activity in these females and in males receiving 20.4 and 52.0 mg/kg were related to tetramethyl thiuram disulfide exposure. [ODonoghue, J.L. (ed.). Neurotoxicity of Industrial and Commercial Chemicals. Volume II. Boca Raton, FL: CRC Press, Inc., 1985. 47]**PEER REVIEWED** [HSDB]
Acute Dermal Toxicity	Not Classified
Acute Aspiration Toxicity	Not Classified
Skin Irritancy/Corrosion	Not Classified
Respiratory Sensitisation	Not Classified
Mutagenic	Not Classified
Carcinogenic	Not Classified
STOT-SE	Not Classified
Information on likely routes of exposure:	
Swallowed:	No data
Inhaled:	No data
Skin:	No data
Eyes:	No data
Chronic Effects:	No data

12. Ecological Information

This product is classified as Ecotoxic according to the criteria of HSNO.

Very toxic to aquatic life with long lasting effects.
Toxic to terrestrial vertebrates.

Ecotoxicity Data - CCID

Toxicity

Bioaccumulation
BCF (aquatic species): 4.4 dimensionless
Bioaccumulative: No
Using a measured water solubility of 30 mg/L at 25 deg C(1), a bioconcentration factor (BCF) of 91 was calculated for thiram(SRC) using a recommended regression equation(2). BCF values of 1.1-4.4 and <3.4 were experimentally determined from a 6-week bioconcentration study using carp and thiram concentrations of 25 and 2.5 ug/l, respectively(4). According to a recommended classification scheme(3), the experimental BCF values suggest that bioconcentration of thiram will be low in aquatic organisms(SRC).
[(1) Yalkowsky SH, Dannenfelser RM; Aquasol Database of Aqueous Solubility. Version 5 (1992) (2) Lyman WJ et al; Handbook of Chemical Property Estimation Methods Washington, DC: Amer Chem Soc (1990) (3) Franke C et al; Chemosphere 29: 1501-14 (1994) (4) Chemicals Inspection and Testing Institute; Biodegradation and Bioaccumulation Data of Existing Chemicals Based on the CSCL Japan. Japan Chemical Industry Ecology - Toxicology and Information Center. ISBN 4-89074-101-1 (1992)]**PEER REVIEWED**
[HSDB]
Biodegradation in water: not biodegradable

Fish
Dose Descriptor: LC50
Effect concentration: 0.0003 mg/L
SPECIES: Cyprinus carpio (common mirror coloured carp)
TYPE OF EXPOSURE:
DURATION: 96 hr
ENDPOINT: LC50
VALUE: 0.3ug/l (= 0.0003 mg/l)
REFERENCE SOURCE: Ref No: 10385. Verma, S.R., I.P. Tonk, and R.C. Dalela (1981) Determination of the Maximum Acceptable Toxicant Concentration (MATC) and the Safe Concentration for Certain Aquatic Pollutants. Acta Hydrochim.Hydrobiol. 9(3):247-254 [ECOTOX]

Aquatic Invertebrates
Dose Descriptor: LC50
Effect concentration: 0.0033 mg/L
SPECIES: Mysid
TYPE OF EXPOSURE:
DURATION: 96 hr
ENDPOINT: LC50
VALUE: 3.36 ppb (= 0.0033 mg/l)
REFERENCE SOURCE: [USEPA OPP db]

Freshwater Algae And Cyanobacteria
Acute Endpoint: [other]
Acute Value: 0.045 mg/L
SPECIES: Selenastrum capricornutum
TYPE OF EXPOSURE:
DURATION: 5 day
ENDPOINT: EC50
VALUE: 0.045 ppm (= 0.045 mg/l)
REFERENCE SOURCE: [USEPA OPP db]

13. Disposal Considerations.

Do not let this product enter the environment. Do not dispose of in waterways or sewers. Dispose of this material and its container as hazardous waste, via a licensed facility. See local council for disposal/recycling information.

14. Transportation Information.

Regulated for transport

UN Number:	2771
Proper Shipping Name:	THIOCARBAMATE PESTICIDES, SOLID, TOXIC
Class:	6.1
Packing Group:	II
Hazchem:	2X
Marine Pollutant:	Yes

Land/Sea/Air



EHSM also required for Sea



15. Regulatory Information.

HSNO Approval Number:	HSR000738 - Granular or powdered material containing 800 to 990 g/kg thiram
HSNO CONTROLS	
SDS required when any quantity is present in a workplace.	
Emergency Response Plan required when >100kg is present in a workplace	
Toxic signage required when >1000kg is stored.	
Ecotoxic signage required when >100kg is stored.	
(Class 6.1C /Acute Toxicity, Cat 3) Hazardous Substances Location Compliance Certificate required for:	>1000kg
Certified Handler	Not Required
Tracking	Not Required

This material is not subject to the following agreements:

- Montreal Protocol (Ozone Depleting Substances)
- The Stockholm Convention (Persistent Organic Pollutants)
- The Rotterdam Convention (Prior Informed Consent)

All ingredients are on the New Zealand Inventory of Chemicals (NZIoC), or exempt.

Any existing national regulations on the handling of dangerous substances should be observed. Controls for hazardous substances are based upon current knowledge. Where multiple chemicals are stored, controls will need to take into account aggregate quantities. Contact a WorkSafe approved Compliance Certifier for further information and guidance.

16. Other Information.

HSNO = Hazardous Substances and New Organisms Act 1996.
EPA = Environmental Protection Authority
CCID = Chemical Classification and Information Database (EPA)
NZ WES = New Zealand Work Exposure Standard
TWA = Time Weighted Average
STEL = Short Term Exposure Limit

Date of SDS Preparation: 28 October 2026

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.