

Material Safety Data Sheet

Hazardous according to criteria of NOHSC Australia.

1. SUPPLY COMPANY IDENTIFICATION

Product name: Tanalith T (Permethrin) RTU

Use: A solvent miscible solution that is used for the protection of timber against termite and borer attack. Usually applied by momentary immersion in appropriate authorised industrial installations.

Supplier: Koppers Arch Wood Protection Pty Ltd
ABN: 95 003 780 872
Street Address: 15 Blue Street
North Sydney
NSW 2060
Telephone: + 612 9954-5433
Facsimile: + 612 9954-5467

Emergency telephone number: + 612 4967-4777 (24 hours)

2. COMPOSITION INFORMATION

CHEMICAL	ENTITY CAS NO.	PROPORTION
Permethrin 25:75	52645-53-1	< 1%
Hydrocarbon solvents	-	Balance
		<hr/> 100%

3. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of NOHSC Australia.

Hazard Category:
Xn Harmful

R-phrases(s):
R65: Harmful: May cause lung damage if swallowed.

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

Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

Poisons Schedule (Aust): S5

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126; New Zealand 03 474 7000).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Seek medical advice if effects persist.

Skin contact: Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

Eye contact: Irrigate with copious quantities of water for 15 minutes. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. Give water to drink. Do NOT induce vomiting. Seek immediate medical assistance.

Notes to physician: Treat symptomatically and as for exposure to liquid hydrocarbons. Aspiration into the lungs can result in pulmonary oedema. Because of risk of aspiration, gastric lavage should only be undertaken after endotracheal intubation.

5. FIRE-FIGHTING MEASURES

Specific hazards: Combustible liquid.

Fire fighting further advice: If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning may 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: If material is involved in a fire use water jets, water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Shut off all possible sources of ignition. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of 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, sewers or waterways has occurred advise local emergency services.

7. HANDLING AND STORAGE

Handling: Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits

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

However for:

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m ³	ppm	mg/m ³		
Permethrin 25:75*	-	10	-	-	-	-
Oil mist, refined mineral	-	5	-	-	-	-

* Supplier recommendations

As published by the National Occupational Health & Safety Commission (NOHSC Australia).

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering measures: Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator. Keep containers closed when not in use.

Personal protection equipment: OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

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. Available information suggests that gloves made from nitrile rubber and polyvinyl alcohol (PVA) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Pale golden liquid with a slight characteristic odour.

Solubility:	Insoluble in water.
Specific Gravity (20 °C):	0.87
Vapour Pressure (20 °C):	< 1 kPa
Flash Point:	77 (ASTM D93)
Flammability Limits (%):	N App
% Volatile by Volume:	50%
Boiling Point/Range (°C):	160 (ASTM D86)
Viscosity:	N App
Evaporation Rate	< 1

(Typical values only - consult specification sheet)

N Av = Not available

N App = Not applicable

10. STABILITY AND REACTIVITY

Stability: Incompatible with oxidising agents.

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:

Acute Effects

Inhalation: Vapour may be irritant to mucous membranes and respiratory tract. Inhalation of high vapour concentrations may cause symptoms of drowsiness or narcosis.

Skin contact: Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis.

Eye contact: May be an eye irritant.

Ingestion: Swallowing can result in nausea, vomiting and irritation to the gastrointestinal tract. If the victim is uncoordinated there is greater likelihood of vomit entering the lungs and causing subsequent complications. Aspiration pneumonia (inflammation of the lung) may result.

Long Term Effects:

No LD50 data available for the product. However for:

Permethrin Tech

Oral Median Lethal Dose (rat): 806 mg/kg (male); 814 mg/kg (female)

Dermal Median Lethal Dose (rabbit): >2000 mg/kg

Median Lethal Concentration (rat): 2.3 mg/L/4 hours

EYES: Mild irritant (rabbit)
SKIN: Mild irritant (rat). A moderate skin sensitiser.

Short-term tests have shown that Permethrin is unlikely to be genotoxic.
Animal studies have shown that repeated or prolonged doses produce no significant effects.

ADI (Acceptable Daily Intake) for humans is 0.05 mg/kg/day.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Permethrin Tech

AQUATIC TOXICITY:

Very toxic to aquatic organisms.
96 hr LC50 (rainbow trout): 2.5 ug/L.
48 hr LC50 (rainbow trout): 5.4 ug/L.
48 hr LC50 (bluegill sunfish): 1.8 ug/L.
48 hr LC50 (Daphnia magna): 0.6 ug/L.

TERRESTRIAL TOXICITY:

Toxic to bees
24hr Oral LD50 (bee): 0.098 ug/bee.
24hr Topical LD50 (bee): 0.029 ug/bee.
Oral LD50 (chicken): >3000 mg/kg.
Oral LD50 (Japanese quail): >13,500 mg/kg.

ENVIRONMENTAL FATE AND DISTRIBUTION:

This substance has low mobility in soil. It has a high potential for bioaccumulation but is rapidly eliminated from fish (about 80% in 14 days). There is evidence of degradation in soil and water. The half-life in soil is less than 38 days.

13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority.

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

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

Hazardous according to criteria of NOHSC Australia.

Hazard Category:

Xn Harmful

R-phrases(s):

R65: Harmful: May cause lung damage if swallowed.

Safety Phrase(s):

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S62: If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Poisons Schedule (Aust): S5

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION**Reference:**

- Suppliers Material Safety Data Sheet – Permethrin 25:75 (50% Solution), 15 July 2000.
- Suppliers Material Safety Data Sheet – Hydrocarbon, September 1997.
- List of Designated Hazardous Substances, NOHSC Australia, April 1999.
- Exposure Standards for Atmospheric Contaminants in the Occupational Environment, Worksafe Australia, May 1995.
- Environmental Health Criteria No. 94; International Programme on Chemical Safety; World Health Organization, Geneva; 1990.
- ADI List, Commonwealth Department of Health and Family Services. 05/98.
- In 'The Pesticide Manual 10th Edition' (Ed. Tomlin, Clive), p783-5 (Crop Protection Publications, U.K. 1994).

This material safety data sheet has been prepared by Chemicals Data Services Pty Ltd.

Reason(s) for Issue: Update in Toxicological Information, Change in Exposure Controls, Change in Ecological Information, Change in Formulation, Change in Hazardous Substance Classification and Update in Ecological Information.

DISCLAIMER

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Koppers Arch Wood Protection Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.