



MATERIAL SAFETY DATA SHEET

Issue date: 9th April, 2008

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: VULKEM® NON-EXPOSED MEMBRANE

Company: Tremco Pty Limited ABN 25 000 024 064
Address: Unit 1, 2 Park Road, Rydalmere, New South Wales, 2116
Contact Nos.: Telephone: (02) 9638 2755 Fax: (02) 9638 2955
Emergency Phone: 1800 224 512 7am to 5pm Monday to Friday inclusive
Packaging: 18.9L Pail
Product Code: 215110 – Grey
Recommended Use: Coating
Manufacturer's Product Code: 4507 12 805
Proper Shipping Name: PAINT

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF WORKSAFE AUSTRALIA AND DANGEROUS ACCORDING TO THE ADG CODE

Symbols: Xn Harmful
Hazchem Code: 3[Y]
Risk Phrases: R10 Flammable
R65 Harmful: May cause lung damage if swallowed
Safety Phrases: S2 Keep out of the reach of children
S16 Keep away from sources of ignition
S33 Take precautionary measures against static discharges
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

Emergency Overview

Grey Liquid. May cause drowsiness, weakness, and fatigue. Vapour and/or mist may irritate nose and throat. May cause moderate irritation to the respiratory system. May cause allergic respiratory sensitization. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation : May cause drowsiness, weakness, and fatigue. Vapour and/or mist may irritate nose and throat. May cause moderate irritation to the respiratory system. May cause allergic respiratory sensitization.
Eyes : Vapour and/or mist may cause eye irritation.
Ingestion : May cause irritation to the mouth, throat and stomach. May cause gastrointestinal irritation, nausea, and vomiting.
Skin : May cause sensitization resulting in irritation, itching and redness.

Aggravated Medical Conditions

Pre-existing eye, skin, liver, kidney, and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Overexposure may cause dermatitis, asthma, skin and respiratory sensitization and decreased lung function. Repeated overexposure to vapours and/or material may injure the liver, kidneys and respiratory system unless suitable engineering controls and/or personal protective equipment are used. Prolonged or repeated contact/exposure to aromatic petroleum distillates may cause defatting, drying, and irritation of the skin, dermatitis, and central nervous system (CNS) effects. Inhalation of crystalline silica (quartz) can cause cancer based on animal data, and IARC concludes sufficient evidence in humans (Group 1). Prolonged and repeated overexposure to free crystalline silica dust above the TLV level may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury, silicosis may result from breathing free silica. A long-term NTP study showed that oral exposure to toluene diisocyanate (TDI) caused cancer in rats and mice. A lifetime inhalation study sponsored by the International Isocyanate Institute did not show carcinogenic activity in rats. May cause allergic skin and respiratory sensitization. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs: Eye, Lung, Liver, Kidney, Skin, Nerve

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	CAS Number:	Proportion:
Aromatic Petroleum Distillates	64742-95-6	10.0-30.0%
Clay	1332-58-7	10.0-30.0%
1,2,4-Trimethylbenzene	95-63-6	7.0-13.0%
Aromatic Polyisocyanate Resin	NJ TSRN#51721300 -5270P	30.0-60.0%
Calcium Carbonate (Limestone)	1317-65-3	10-20%
Crystalline Silica Quartz	14808-60-7	<1.0%
2,4-Toluene Diisocyanate	584-84-9	<1.0%
Tackifier	NJ TSRN#51721300 -5272P	7.0-13.0%
1,3,5-Trimethylbenzene	108-67-8	1.0-5.0%
Trimethyl Benzene (Mixed Isomers)	25551-13-7	1.0-5.0%
Titanium dioxide	134563-67-7	3.0-7.0%

4. FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

Inhalation :	Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
Eye contact :	Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately.
Skin contact :	Wash area of contact thoroughly with hand cleaner followed by soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
Ingestion :	Do not induce vomiting unless advised by a physician. Call nearest Poison Control Centre (Ph. 13 11 26 in all states) or Physician immediately.

5. FIRE FIGHTING MEASURES

Hazchem Code :	3[Y]
Flash point :	48°C
Method :	Setaflash Closed Cup
Lower explosion limit :	Not available.
Upper explosion limit :	Not available.
Autoignition temperature :	Not available.
Extinguishing media :	If water fog is ineffective, use carbon dioxide, dry chemical or foam.
Hazardous combustion Products :	Carbon monoxide and carbon dioxide can form. Smoke fumes. Hydrocyanic acid and nitrogen oxides can form.
Protective equipment for Firefighters :	Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
Fire and explosion conditions :	Product may ignite if heated in excess of its flash point. Closed container, may burst when exposed to extreme heat. Empty containers may contain ignitable vapours. Vapours may travel to sources of ignition and flashback

6. ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Remove sources of ignition immediately. Stop flow of material if safe to do so. Contain spill and keep out of water courses. Ventilate area.

Dispose of in accordance with local, State and Federal regulations.

7. HANDLING & STORAGE

Prevent inhalation of vapour, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. Change soiled work clothes frequently. Clean hands thoroughly after handling. Do not smoke, weld, generate sparks, or use flame near container. To prevent generation of static discharges, use bonding/grounding connection when pouring liquid. Extinguish all ignition sources including pilot lights, non-explosion proof motors and electrical equipment until vapours dissipate. Store under dry warehouse conditions away from heat and all ignition sources.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

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|----------------------------|---|
| Respiratory protection : | Wear appropriate, properly fitted NIOSH/MSHA approved respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Select positive pressure supplied air respirator (TC19C or equivalent) for isocyanates. |
| Hand protection : | Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure. |
| Eye protection : | Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available. |
| Skin and body protection : | Prevent contact with shoes and clothing. |
| Protective measures : | Use professional judgment in the selection, care, and use. |
| Engineering measures : | Use only in well ventilated areas. Provide maximum ventilation in enclosed areas. Use local exhaust when the general ventilation is inadequate. |

Exposure Limits

Chemical Name	CAS Number	Regulation	Limit	Form
Titanium dioxide	13463-67-7	ACGIH TWA	10mg/m ³	
		OSHA PEL	15mg/m ³	Total dust
		OSHA TWA	15mg/m ³	Total dust
		OSHA TWA	5mg/m ³	Respirable fraction
Clay	1332-58-7	ACGIH TWA	2mg/m ³	Respirable fraction
		OSHA PEL	15mg/m ³	Total dust
		OSHA PEL	5mg/m ³	Respirable fraction
		OSHA TWA	15mg/m ³	Total dust
OSHA TWA	5mg/m ³	Respirable fraction		
Calcium Carbonate (Limestone)	1317-65-3	OSHA PEL	15mg/m ³	Total dust
		OSHA PEL	5mg/m ³	Respirable Fraction
		ACGIH TWA	3mg/m ³	Respirable particles
		ACGIH TWA	10mg/m ³	Inhalable particles
OSHA TWA	15mg/m ³	Total dust		
OSHA TWA	5mg/m ³	Respirable fraction		
Crystalline Silica (Quartz) Silica Sand	14808-60-7	OSHA TWA	0.1mg/m ³	Respirable
		OSHA TWA	0.3mg/m ³	Total dust
		OSHA PEL	15mg/m ³	Total dust
		OSHA PEL	5mg/m ³	Respirable fraction
		ACGIH TWA	0.05mg/m ³	Respirable fraction
1,2,4-Trimethylbenzene	95-63-6	ACGIH TWA	25ppm	
1,3,5-Trimethylbenzene	108-67-8	ACGIH TWA	25ppm	
Trimethyl Benzene (Mixed Isomers)	25551-13-7	ACGIH TWA	25ppm	
2,4-Toluene Diisocyanate	584-84-9	ACGIH TWA	0.005ppm	
		ACGIH STEL	0.02ppm	

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid
 Colour : Grey
 Odour : Solvent odour
 pH : Not available.

Vapour Pressure : Not available.
Vapour Density : Heavier than air
Melting Point/Range : Not available.
Freezing Point : Not available.
Boiling Point/Range : Not available.
Water Solubility : Negligible
Specific Gravity : 1.177
% Volatile Weight : 28 %

10. STABILITY AND REACTIVITY

Substances to avoid : Strong acids. Strong bases. Amines. Water or moisture. Alcohols.
Stability : Material is stable under normal storage, handling, and use.
Hazardous polymerization : Will not occur under normal conditions.

11. TOXICOLOGICAL INFORMATION

Trimethyl benzene (mixed isomers), CAS-No.: 25551-13-7
Acute oral toxicity (LD-50 oral) 8,970 mg/kg (Rat)

2,4-Toluene diisocyanate, CAS-No.: 584-84-9
Acute oral toxicity (LD-50 oral) 5,800 mg/kg (Rat)
Acute inhalation toxicity (LC-50) 14 mg/l (Rat)

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

RCRA Class : D001: Reportable Quantity = 100 lbs. (Characteristic of ignitability). This classification applies only to the material as it was originally produced.
Disposal Method : Subject to hazardous waste treatment, storage and disposal requirements under RCRA. Dispose of in a contained chemical landfill in compliance with federal, state and local regulations.

14. TRANSPORT INFORMATION

UN Number: 1263
Proper Shipping Name: PAINT
Class: 3
Dangerous Goods/

Subsidiary Risk: 3
Packing Group: III
Poisons Schedule Number: None assigned
Hazchem Code: 3[Y]

15. REGULATORY INFORMATION

Risk & Safety Phrases listed in Section 2

OSHA Hazardous Components :

Clay	1332-58-7
Calcium Carbonate (Limestone)	1317-65-3
1,2,4-Trimethylbenzene	95-63-6
Titanium dioxide	13463-67-7
1,3,5-Trimethylbenzene	108-67-8
Trimethyl benzene (mixed isomers)	25551-13-7
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7
2,4-Toluene diisocyanate	584-84-9

OSHA Status: Considered hazardous based on the following criteria:

Irritant
Sensitizer
Carcinogen
II

OSHA Flammability :

Regulatory VOC (less water and exempt solvent) :

334 g/l

VOC Method 310 :

28 %

Chemical is listed as an IARC, NTP, OSHA, or ACGIH Carcinogen:

Crystalline Silica (Quartz)/ Silica Sand 14808-60-7

16. OTHER INFORMATION

Hazardous Materials Information System:

Health	2
Flammability	2
Reactivity	1
PPE	

0 = Minimum
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

For Industrial Use only. Keep out of reach of children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use and storage of the product under every foreseeable condition.

Website: www.tremco.com.au

The information sourced for the preparation of this document was correct and complete at the time of writing or to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority.