



MATERIAL SAFETY DATA SHEET

Date of Issue: May 2006

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: ChemTools 8277 Thread Locker
Product Type: Anaerobic Adhesive
Company Address: ChemTools Pty. Ltd., PO Box 4319, Penrith, NSW 2750
Ph 02 4635 3746
EMERGENCY PHONE: Australia: Poisons Information Centre 13 1126
International: Infotrac (708) 918 1900

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS #	%	RISKS
Polyethylene Glycol Dimethacrylate	923-26-2	45-65	Xi: R36 R43
Trimethylolpropane triacrylate	15625-89-5	10-25	Xi: R36/38 R43
Cumene hydroperoxide	80-15-9	0.5-3	O: R7 T: R23 Xn: R21/22, 48/20/22, C: R34 N: 51, 53
1-Acetyl-2phenylhydrazine	114-83-0	0.1-0.95	Xn: R20/21/22 R40 Xi:R36/37/38R43

3. HAZARDS IDENTIFICATION

Relevant routes of exposure: Skin, Inhalation, Eyes
Potential Health Effects
Inhalation: May cause respiratory tract irritation.
Skin contact: May cause allergic skin reaction. May cause skin irritation.
Eye contact: Contact with eyes will cause irritation.
Ingestion: Not expected to be harmful by ingestion.

HMIS:

HEALTH: 1 **FLAMMABILITY:** 1 **REACTIVITY:** 1 **PPE:** H

WARNING: CAUSES EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air. If symptoms develop and persist, get medical attention.
Skin contact: Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse.
Get medical attention if symptoms occur.
Eye contact: Flush with copious amounts of water, preferably, lukewarm water for at least 15 minutes, holding eyelids open all the time. Get medical attention.
Ingestion: Do not induce vomiting. Keep individual calm. Obtain medical attention.

5. FIRE-FIGHTING MEASURES

Flash point: Greater than 93°C (200°F) Cleveland closed cup
Autoignition temperature: Not available
Extinguishing media: Alcohol Resistant Foam, dry chemical or carbon dioxide.
Special fire fighting procedures: Do not breathe decomposition products and fumes. Use approved self-contained breathing apparatus.
Wear fire retardant clothing. Wear eye protection. Large fires should only be dealt with by trained personnel.
Use water spray to cool containers.
Prevent runoff from fire control from entering waterways.
Hazardous combustion products: Oxides of carbon. Oxides of sulphur. Oxides of nitrogen. Toxic/Irritating organic vapours.

6. ACCIDENTAL RELEASE MEASURES

Exposure Controls:	Ventilate area Evacuate all personnel. Use barriers to prevent unauthorized entry into contaminate areas. Do no allow spill to enter drains and watercourses.
Personal Protection:	Wear suitable respiratory protection for large spillages and in confined spaces, e.g. EN405 FFA2 or EN140 A2. Wear polythene gloves. Wear chemically resistant overalls and boots. Use eye protection such as goggles to BS EN 166 Chemical Grade.
Disposal Considerations:	Absorb in inert material such as sand r absorbent granules Scoop up and place in plastic container to await transfer. Dispose in accordance with local regulations.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapour and mist. Wash thoroughly after handling.
Storage:	For safe storage, store at or below 38°C (100°F). Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Can be stored in LDPE containers. Do not allow to contact or store in aluminium, mild steel, rusty steel, copper or (alloys of) or tin vessels.
Incompatible products:	Refer to Section 10.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	No specific ventilation requirements noted, but forced ventilation may still be required if concentrations exceed occupational exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Skin protection:	Use impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene polythene or nitrile gloves. Do not use PVC or latex.
Eye/face protection:	Safety goggles or safety glasses with side shields.
See Section 2 for exposure limits.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Red
Odor:	Slightly sweet, characteristic
pH:	~3-5
Boiling point/range:	Not Applicable
Melting point/range:	Not Applicable
Flash Point	>100 degree c
Flammability	Non – Flammable
Explosive Properties	Not available
Oxidizing Properties	None
Vapor pressure:	~0.1 mmHg at 20 degree c
Relative Density	~1.08
Solubility in water:	Low Solubility
Solubility in Solvents	Miscible in organic solvents, e.g. acetone
Vapor density:	Not established
Partition coefficient, log Pow	Not established (but likely to be <3)
Evaporation rate (Bu Ac=1)	Not established

10. STABILITY AND REACTIVITY

Stability:	Stable at normal temperatures.
Conditions to avoid:	Elevated temperatures, direct sunlight, sources of ignition, low oxygen environments. Hazardous exothermic polymerization can occur if exposed to elevated temperatures for periods of time. Air space/oxygen above the product is vital to keep formulatory inhibitors active.
Materials to avoid:	Oxidizing agents, free-radical initiators, reducing metal oxides. Do not allow to contact or store in aluminium, mild steel, rusty steel, copper or alloys of tin vessels.
Hazardous decomposition products:	Combustion/exothermic polymerization will generate oxides of carbon, acrid smoke and irritating fumes.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	<u>Oral</u> – Expected to be very low – LD50 (rat) is likely to be in the range 5,000-10,000mg/kg. <u>Inhalation</u> – Expected to be low. <u>Skin</u> – Expected to be low – LD50 (rabbit) estimated to be > 3,000mg/kg <u>Respiratory Tract</u> – Mild irritation of nose and throat.
Sensitization:	Not tested, but not anticipated
Repeated dose-toxicity:	Not tested, but not anticipated
Mutagenicity:	Not tested, but not anticipated
Carcinogenicity:	Not tested, but not anticipated
Reproductive Toxicity:	Not tested, but not anticipated

12. ECOLOGICAL INFORMATION

Not classified as Dangerous for the Environment by the Conventional Method as detailed in Schedule 3, Parts I and III of CHIP3 Regulations.

Ecotoxicity:	Considered to be low – due to probable biodegradability and Log Pow expected to be <3.
Bioaccumulative potential:	Expected to be low.
Persistence:	Considered to be biodegradable – testing of one major (non-declarable) component gave a biodegradability result of 85% after 28 days.
Mobility:	Considered to be relatively low due to low water solubility.

13. DISPOSAL CONSIDERATIONS

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations. Do not discharge into drains or watercourses. Dispose of product through properly licensed contractors under national and local legislation. Product residues can be cleaned out of containers. Dispose of in accordance with the Special Waste Regulations 1996. Alternatively, product can be polymerized using ChemTools 8049 activator (care should be taken if polymerizing a large quantity of product due to exothermic reaction). Hardened product can be disposed of as chemical waste by incineration or licensed contractors. Clean containers can be disposed of by landfill or incineration or possibly recycled.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR):	
Proper shipping name:	Unrestricted
Hazard class or division:	None
Identification number:	None
Packing group:	None
International Air Transportation (ICAO/IATA):	
Proper shipping name:	Unrestricted
Hazard class or division:	None
Identification number:	None
Packing group:	None
Water Transportation (IMO/IMDG):	
Proper shipping name:	Unrestricted
Hazard class or division:	None
Identification number:	None
Packing group:	None
Marine pollutant:	None

15. REGULATORY INFORMATION

Symbol(s) & Indication(s) of DANGER



Irritant

Label Phrases: Contains 2-hydroxypropyl methacrylate and trimethylolpropane triacrylate.

Risk & Safety Phrases

R41	Risk of serious damage to eyes
R37/38	Irritating to respiratory system and skin
R43	May cause sensitization by skin contact



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S24/25 Avoid contact with skin and eyes
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39 Wear Suitable gloves and eye/face protection.

Other Relevant Regulations and Publications

Health & Safety at Work etc. Act 1974 Control of Substances Hazardous to Health Regulations 1994
COSHH Essentials EH40/series – Occupational Exposure Limits
Environmental Protection Act 1990 Special Waste Regulations 1996

16. OTHER INFORMATION *

Risk phrases referred to in section 2:-

R7 May cause fire.
R10 Flammable
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R33 Danger of cumulative effects.
R34 Causes burns.
R35 Causes severe burns.
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R43 May cause sensitization by skin contact.
R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R50 Very toxic to aquatic organism.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.

DISCLAIMER:

The information contained within this MSDS applies only to the ChemTools product to which the sheet relates. The information provided is based on our best knowledge at the time of issue.

The information contained within this MSDS is believed to be accurate and is given in good faith. However, no warranty is made, either expressed or implied, regarding its accuracy or any liability arising out of the use of the information herein or the product supplied.

When used in other preparations, formulations, or in mixtures, it is necessary to ascertain whether the classifications of the hazards have changed. The attention of the user is drawn to the possibility of creating other hazards when the product is used for purpose other than that for which it was recommended. In such cases, a reassessment may be necessary and should be made by the user.

This safety data sheet should only be used and reproduced in order that the necessary measures are taken relating to the protection of health and safety at work.

It is the responsibility of the handlers to pass on the totality of the information contained within this document to any subsequent person(s) who will come in to contact with, handle or use this product in any way.

They should check the adequacy of the information provided within this MSDS before passing it on to their customers/staff.