



## A NEW FORCE IN CHEMICAL MANUFACTURING

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# SAFETY DATA SHEET

ISSUED SEPTEMBER 2014 (VALID 5 YEARS FROM DATE OF ISSUE)

## 8277 HIGH STRENGTH, PERMANENT THREADLOCKER

### SECTION 1 - IDENTIFICATION OF THE MATERIAL

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**Product Name:** High Strength, Permanent Threadlocker  
**Product Type:** Anaerobic Adhesive  
**Part Number:** 8277  
**Available Sizes:** 8277-10 (10 ml)  
8277-50 (50 ml)  
8277-250 (250 ml)

### SECTION 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-2-Phenylhydrazine	114-83-0	0.1 - 0.95	Xn: R20/21/22, R40 Xi: R36/37/38, R43

### SECTION 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
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**Warnings:** Causes eye irritation. May cause skin irritation. May cause allergic skin reaction.  
May cause respiratory tract irritation.

**SECTION 4 - FIRST AID MEASURES**

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

**SECTION 5 - FIRE FIGHTING MEASURES**

<b>Flash Point:</b>	Greater than 93°C (200°F) Cleveland Closed Cup
<b>Autoignition Temperature:</b>	Not available
<b>Extinguishing Media:</b>	Alcohol resistant foam, dry chemical, or Carbon Dioxide.
<b>Special Fire Fighting Procedures:</b>	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
<b>Hazardous Combustion Products:</b>	Oxides of Carbon. Oxides of Sulphur. Oxides of Nitrogen. Toxic/Irritating organic vapours.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

<b>Exposure Controls:</b>	Ventilate area. Evacuate all personnel. Use barriers to prevent unauthorized entry into contaminated areas. Do not allow spill to enter drains and watercourses.
<b>Personal Protection:</b>	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.
<b>Disposal Considerations:</b>	Absorb in inert material such as sand or absorbent granules. Scoop up and place in plastic container to await transfer. Dispose in accordance with local regulations.

**SECTION 7 - HANDLING AND STORAGE**

<b>Handling:</b>	Avoid contact with eyes, skin and clothing. Avoid breathing vapour and mist. Wash thoroughly after handling.
<b>Storage:</b>	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.
<b>Incompatible Products:</b>	Refer to <i>Section 10 - Stability and Reactivity</i>

**SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Engineering Controls:</b>	No specific ventilation requirements noted, but forced ventilation may still be required if concentrations exceed occupational exposure limits.
<b>Respiratory Protection:</b>	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
<b>Skin Protection:</b>	Use impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene, polythene, or nitrile gloves. Do not use PVC or latex.
<b>Eye/Face Protection:</b>	Safety goggles or safety glasses with side shields.
<b>Exposure Limits:</b>	Refer to <i>Section 2 - Composition/Information on Ingredients</i>

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid
<b>Colour:</b>	Red
<b>Odour:</b>	Slightly sweet, characteristic
<b>pH:</b>	~ 3 - 5
<b>Boiling Point/Range:</b>	Not applicable
<b>Melting Point/Range:</b>	Not applicable
<b>Flash Point</b>	> 100 °C
<b>Flammability</b>	Non-Flammable
<b>Explosive Properties</b>	Not available
<b>Oxidizing Properties</b>	None
<b>Vapour Pressure:</b>	~ 0.1 mm Hg at 20 °C
<b>Relative Density</b>	~ 1.08
<b>Solubility in Water:</b>	Low
<b>Solubility in Solvents</b>	Miscible in organic solvents, e.g. acetone
<b>Vapour Density:</b>	Not established
<b>Partition Coefficient, log Pow</b>	Not established (but likely to be < 3)
<b>Evaporation Rate (Bu Ac=1)</b>	Not established

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Stability:</b>	Stable at normal temperatures.
<b>Conditions to Avoid:</b>	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.
<b>Materials to Avoid:</b>	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.
<b>Hazardous Decomposition Products:</b>	Combustion/exothermic polymerization will generate oxides of carbon, acrid smoke, and irritating fumes.

**SECTION 11 - TOXICOLOGICAL INFORMATION****Acute Toxicity Data**

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

**SECTION 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.

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

**SECTION 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.

**SECTION 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

**SECTION 15 - REGULATORY INFORMATION****Symbol(s) and 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
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

## **SECTION 16 - OTHER INFORMATION**

### **Risk phrases referred to in Section 2 - Composition/Information on Ingredients**

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 purposes 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.