Material Safety Data Sheet





Revision Number: 004.3 Issue date: 07/20/2009

1. PRODUCT AND COMPANY IDENTIFICATION

IDH number:

LOCTITE® 277™ THREADLOCKER Product name:

HIGH STRENGTH

Product type: Anaerobic Sealant Item number: 27731

Region: **United States**

Contact information: Company address: Henkel Corporation Telephone: 860.571.5100

One Henkel Way Emergency telephone: 860.571.5100

Rocky Hill, Connecticut 06067 Internet: www.henkelna.com

HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

Physical state: Liquid **HEALTH:** Color: Red FLAMMABILITY: 1 PHYSICAL HAZARD: Odor: Characteristic

> **Personal Protection:** See MSDS Section 8

88448

WARNING: MAY CAUSE ALLERGIC SKIN REACTION.

MAY CAUSE EYE AND RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: May cause respiratory tract irritation. May cause allergic skin reaction. Skin contact:

Eye contact: May cause irritation.

Ingestion: May be harmful if swallowed.

Existing conditions aggravated by

exposure:

IDH number: 88448

Eye, skin, and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR

1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Polyglycol dimethacrylate	25852-47-5	30 - 60
Bisphenol A fumarate resin	39382-25-7	30 - 60
Cumene hydroperoxide	80-15-9	1 - 5
Saccharin	81-07-2	1 - 5

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If symptoms develop and persist, get medical attention.

Skin contact: Wash with soap and water. Remove contaminated clothing and footwear.

Wash clothing before reuse. If symptoms develop and persist, get medical

attention.

Product name: LOCTITE® 277™ THREADLOCKER HIGH STRENGTH Page 1 of 5

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. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash point: > 93.3 °C (> 199.94 °F) Tagliabue closed cup

Autoignition temperature: Not available

Flammable/Explosive limits - lower: Not available

Flammable/Explosive limits - upper: Not available

Extinguishing media: If product is involved in fire extinguish with dry powder, foam or carbon

dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as

turn-out gear.

Unusual fire or explosion hazards: None

IDH number: 88448

Hazardous combustion products: Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Irritating organic

vapours.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Ventilate area. Do not allow product to enter sewer or waterways.

Clean-up methods: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder,

universal binder, sawdust). Store in a partly filled, closed container until

disposal.

7. HANDLING AND STORAGE

Handling: Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist.

Wash thoroughly after handling.

Storage: For safe storage, store at or below 38 °C (100.4 °F)

Keep in a cool, well ventilated area away from heat, sparks and open flame.

Keep container tightly closed until ready for use.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Polyglycol dimethacrylate	None	None	None	None
Bisphenol A fumarate resin	None	None	None	None
Cumene hydroperoxide	None	None 1 ppm (6 mg/m3) TWA None (SKIN)		None
Saccharin	None	None	None	None

Engineering controls: Local exhaust ventilation is recommended when general ventilation is not

sufficient to control airborne contamination below occupational exposure

limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator with an organic vapor cartridge.

Eye/face protection: Safety goggles or safety glasses with side shields.

Skin protection: Use impermeable gloves and protective clothing as necessary to prevent skin

contact. Neoprene gloves. Butyl rubber gloves. Natural rubber gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid Color: Red

Odor: Characteristic
Odor threshold: Not available
pH: Not applicable

Vapor pressure: $< 5 \text{ mm hg } (27 \, ^{\circ}\text{C } (80.6 \, ^{\circ}\text{F}))$ Boiling point/range: $> 149 \, ^{\circ}\text{C } (> 300.2 \, ^{\circ}\text{F})$ Melting point/ range:Not available

Melting point/ range: Not av Specific gravity: 1.1

Vapor density: Not available

Flash point: > 93.3 °C (> 199.94 °F) Tagliabue closed cup

Flammable/Explosive limits - lower:

Flammable/Explosive limits - upper:

Autoignition temperature:

Evaporation rate:

Solubility in water:

Partition coefficient (n-octanol/water):

VOC content:

Not available

Not available

Not available

O.71 %; 7.13 g/l

10. STABILITY AND REACTIVITY

Stability: Stable

IDH number: 88448

Hazardous reactions: Will not occur.

Hazardous decomposition products: Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Irritating organic

vapours. Phenolics.

Incompatible materials: Strong acids and oxidizing agents. Copper Rust. Iron. Oxygen scavengers.

Strong alkalis. Reducing agents. Other polymerization initiators.

Conditions to avoid: See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).

11. TOXICOLOGICAL INFORMATION

Acute oral product toxicity: LD50 (rat) > 5,000 mg/kg (Estimated)

Acute dermal product toxicity: LD50 (rabbit) > 2,000 mg/kg (Estimated)

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Polyglycol dimethacrylate	No	No	No
Bisphenol A fumarate resin	No	No	No
Cumene hydroperoxide	No	No	No
Saccharin	No	No	No

Hazardous components	Health Effects/Target Organs
Polyglycol dimethacrylate	Irritant, Allergen
Bisphenol A fumarate resin	Irritant, Allergen
Cumene hydroperoxide	Allergen, Central nervous system, Corrosive, Irritant, Mutagen
Saccharin	No Target Organs

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

The shipping classifications in this sections are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk packaging.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated Hazard class or division: None Identification number: None Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated Hazard class or division: None Identification number: None Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated Hazard class or division: None Identification number: None Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act

nventory.

TSCA 12(b) Export Notification: None above reporting de minimus

CERCLA/SARA Section 302 EHS: None above reporting de minimus CERCLA/SARA Section 311/312: Delayed Health, Immediate Health

CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of

section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40

CFR 372). Cumene hydroperoxide (CAS# 80-15-9).

CERCLA Reportable quantity: Cumene hydroperoxide (CAS# 80-15-9) 10 lbs. (4.54 kg)

Saccharin (CAS# 81-07-2) 100 lbs. (45.4 kg)

California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic

Substances List.

IDH number: 88448 Product name: LOCTITE® 277™ THREADLOCKER HIGH STRENGTH

Page 4 of 5

WHMIS hazard class: D.2.B

IDH number: 88448

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format

Prepared by: Kyra Kozak Woods, Manager, Regulatory Affairs

DISCLAIMER: The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation does not assume responsibility for any results obtained by persons over whose methods Henkel Corporation has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any of Henkel Corporation's products. In light of the foregoing, Henkel Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation further disclaims any liability for consequential or incidental damages of any kind, including lost profits.