



Revision Number: 002.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE 278	IDH number:	1117477
Product type:	Anaerobic Adhesive	Item number:	42843
Restriction of Use:	None identified	Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: (860) 571-5100		
One Henkel Way	MEDICAL EMERGENCY Phone: Poison Control Center		
Rocky Hill, Connecticut 06067	1-877-671-4608 (toll free) or 1-303-592-1711		
	TRANSPORT EMERGENCY Phone: CHEMTREC		
	1-800-424-9300 (toll free) or 1-703-527-3887		
	Internet: www.henkelna.com		

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING: CAUSES SKIN IRRITATION.
MAY CAUSE AN ALLERGIC SKIN REACTION.
CAUSES SERIOUS EYE IRRITATION.

HAZARD CLASS

HAZARD CATEGORY

SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1

PICTOGRAM(S)



Precautionary Statements

Prevention:	Avoid breathing vapors, mist, or spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye and face protection. Wear protective gloves.
Response:	IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Not prescribed
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
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Dimethacrylate ester	Proprietary	30 - 60
(octahydro-4,7-methano-1H-indenediyl)bis(methylene) bismethacrylate	43048-08-4	10 - 30
Hydroxyalkyl methacrylate	27813-02-1	5 - 10
Methacryloyloxyethyl Ester	Proprietary	5 - 10
Polyglycol dimethacrylate	Proprietary	1 - 5
Cumene hydroperoxide	80-15-9	1 - 5
2-Hydroxyethyl methacrylate	868-77-9	0.1 - 1
1-Acetyl-2-phenylhydrazine	114-83-0	0.1 - 1
Methacrylate ester	Proprietary	0.1 - 1
Amine	Proprietary	0.1 - 1
Cumene	98-82-8	0.1 - 1
Methacrylic acid	79-41-4	0.1 - 1

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Keep warm and quiet. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
Unusual fire or explosion hazards:	Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.
Hazardous combustion products:	Oxides of carbon. 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:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. 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. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

- Handling:** Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Refer to Section 8.
- 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.

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 Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Dimethacrylate ester	None	None	None	None
(octahydro-4,7-methano-1H-indenediyl)bis(methylene)bismethacrylate	None	None	None	None
Hydroxyalkyl methacrylate	None	None	None	1 ppm TWA 3 ppm STEL
Methacryloyloxyethyl Ester	None	None	None	None
Polyglycol dimethacrylate	None	None	None	None
Cumene hydroperoxide	None	None	1 ppm (6 mg/m3) TWA (SKIN)	None
2-Hydroxyethyl methacrylate	None	None	None	3 ppm Ceiling
1-Acetyl-2-phenylhydrazine	None	None	None	None
Methacrylate ester	None	None	None	None
Amine	None	None	None	None
Cumene	50 ppm TWA	50 ppm (245 mg/m3) PEL (SKIN)	None	None
Methacrylic acid	20 ppm TWA	None	None	None

- Engineering controls:** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
- Respiratory protection:** Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
- Eye/face protection:** Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.
- Skin protection:** Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Neoprene gloves. Butyl rubber gloves. Natural rubber gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state:** Liquid
- Color:** Green
- Odor:** Characteristic
- Odor threshold:** Not available.
- pH:** Not available.
- Vapor pressure:** Not available.
- Boiling point/range:** > 149 °C (> 300.2 °F) no method
- Melting point/ range:** Not available.
- Specific gravity:** 1 Approximately
- Vapor density:** Not available.
- Flash point:** > 100 °C (> 212°F)

Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	Not available.
Solubility in water:	Not available.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 2 g/l
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents. Strong bases. Strong acids.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes, Ingestion
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Potential Health Effects/Symptoms

Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system.
Skin contact: Causes skin irritation. May cause allergic skin reaction.
Eye contact: Causes serious eye irritation.
Ingestion: May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Dimethacrylate ester	None	Irritant, Allergen
(octahydro-4,7-methano-1H-indenediyl)bis(methylene)bismethacrylate	None	No Data
Hydroxyalkyl methacrylate	None	Irritant, Allergen
Methacryloyloxyethyl Ester	None	No Records
Polyglycol dimethacrylate	None	Irritant, Allergen
Cumene hydroperoxide	None	Allergen, Central nervous system, Corrosive, Irritant, Mutagen
2-Hydroxyethyl methacrylate	Oral LD50 (RAT) = 11.2 g/kg Oral LD50 (RAT) = 5,050 mg/kg	Irritant, Allergen
1-Acetyl-2-phenylhydrazine	None	Allergen, Blood, Kidney, Mutagen, Some evidence of carcinogenicity
Methacrylate ester	None	Irritant, Allergen
Amine	None	Allergen, Central nervous system, Corrosive, Irritant
Cumene	Oral LD50 (RAT) = 2.91 g/kg Oral LD50 (RAT) = 1,400 mg/kg Inhalation LC50 (RAT, 4 h) = 8000 ppm	Central nervous system, Irritant, Lung
Methacrylic acid	Oral LD50 (RABBIT) = 1,200 mg/kg Oral LD50 (RAT) = 1,060 mg/kg Oral LD50 (RAT) = 2,224 mg/kg Dermal LD50 (RABBIT) = 500 mg/kg Inhalation LC50 (RAT, 4 h) = 7.1 mg/l	Corrosive, Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Dimethacrylate ester	No	No	No
(octahydro-4,7-methano-1H-indenediyl)bis(methylene)bismethacrylate	No	No	No
Hydroxyalkyl methacrylate	No	No	No
Methacryloyloxyethyl Ester	No	No	No
Polyglycol dimethacrylate	No	No	No
Cumene hydroperoxide	No	No	No
2-Hydroxyethyl methacrylate	No	No	No
1-Acetyl-2-phenylhydrazine	No	No	No
Methacrylate ester	No	No	No
Amine	No	No	No
Cumene	No	Group 2B	No
Methacrylic acid	No	No	No

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 transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

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 inventory.
TSCA 12 (b) Export Notification: 2-Propenoic acid, 2-methyl-, (octahydro-4,7-methano-1H-indene-5,?-diyl)bis(methylene) ester (CAS# 43048-08-4).
CERCLA/SARA Section 302 EHS: None above reporting de minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA Section 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)
California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.

16. OTHER INFORMATION

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

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