



Revision Number: 002.1

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**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** LOCTITE 648 RETAIN CMPND 250ML  
**Product type:** Anaerobic Sealant  
**Company address:** Henkel Corporation, One Henkel Way, Rocky Hill, Connecticut 06067  
**IDH number:** 1835918  
**Item number:** 1835918  
**Region:** United States  
**Contact information:** Telephone: 860.571.5100  
 MEDICAL EMERGENCY Phone: Poison Control Center 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**

**Physical state:** Liquid  
**Color:** Green  
**Odor:** Characteristic  
**HEALTH:** \*2  
**FLAMMABILITY:** 1  
**PHYSICAL HAZARD:** 1  
**Personal Protection:** See MSDS Section 8  
**WARNING:** MAY CAUSE ALLERGIC SKIN REACTION.  
 CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

**Relevant routes of exposure:** Lungs, Skin, Eyes

**Potential Health Effects**

**Inhalation:** May cause respiratory tract irritation. Dizziness.  
**Skin contact:** May cause allergic skin reaction. May cause skin irritation. This product may be harmful if it is absorbed through the skin.  
**Eye contact:** May cause irritation.  
**Ingestion:** May be harmful if swallowed.

**Existing conditions aggravated by exposure:** 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	%
Dimethacrylate ester	Proprietary	30 - 60
Methacrylate monomer	Proprietary	10 - 30
2-Hydroxyethyl methacrylate	868-77-9	10 - 30
Fumarate resin	Proprietary	10 - 30
Polyurethane methacrylate resin	Proprietary	5 - 10
Acrylic acid	79-10-7	1 - 5
Hydroxyalkyl methacrylate	27813-02-1	1 - 5
1-Acetyl-2-phenylhydrazine	114-83-0	0.1 - 1

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If symptoms develop and persist, get medical attention.
<b>Skin contact:</b>	Wash with soap and water. Remove contaminated clothing and footwear. Wash clothing before reuse. If symptoms develop and persist, get medical attention.
<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. Get medical attention.

#### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	93.3 °C (199.94 °F)
<b>Autoignition temperature:</b>	Not available.
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Extinguishing media:</b>	Foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	None
<b>Unusual fire or explosion hazards:</b>	None
<b>Hazardous combustion products:</b>	Oxides of nitrogen. 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.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	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

<b>Handling:</b>	Avoid contact with eyes, skin and clothing.
<b>Storage:</b>	For safe storage, store between 4 °C (39.2 °F) and 38 °C (100.4 °F)

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
Dimethacrylate ester	None	None	None	None
Methacrylate monomer	None	None	None	None
2-Hydroxyethyl methacrylate	None	None	None	3 ppm Ceiling
Fumarate resin	None	None	None	None
Polyurethane methacrylate resin	None	None	None	None
Acrylic acid	2 ppm TWA (SKIN)	None	None	1 ppm TWA 3 ppm STEL (SKIN)
Hydroxyalkyl methacrylate	None	None	None	1 ppm TWA 3 ppm STEL
1-Acetyl-2-phenylhydrazine	None	None	None	None

<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>Eye/face protection:</b>	Safety goggles or safety glasses with side shields.
<b>Skin protection:</b>	Use impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene gloves. Nitrile gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Green
<b>Odor:</b>	Characteristic
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	< 5 mm hg (80 °F (26.7 °C))
<b>Boiling point/range:</b>	> 300 °F (> 148.9 °C) None
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.01
<b>Vapor density:</b>	Not available.
<b>Flash point:</b>	93.3 °C (199.94 °F)
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not available.
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Slight
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	< 3 %

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Oxides of nitrogen. Oxides of carbon. Irritating organic vapours.
<b>Incompatible materials:</b>	Strong oxidizing agents. Reducing agents. Free radical initiators.
<b>Conditions to avoid:</b>	See "Handling and Storage" (Section 7) and "Incompatibility" (Section 10).

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Dimethacrylate ester	No	No	No
Methacrylate monomer	No	No	No
2-Hydroxyethyl methacrylate	No	No	No
Fumarate resin	No	No	No
Polyurethane methacrylate resin	No	No	No
Acrylic acid	No	No	No
Hydroxyalkyl methacrylate	No	No	No
1-Acetyl-2-phenylhydrazine	No	No	No

Hazardous components	Health Effects/Target Organs
Dimethacrylate ester	Irritant, Allergen
Methacrylate monomer	No Records
2-Hydroxyethyl methacrylate	Irritant, Allergen
Fumarate resin	No Target Organs
Polyurethane methacrylate resin	Irritant, Allergen
Acrylic acid	Allergen, Corrosive, Irritant, Kidney, Liver
Hydroxyalkyl methacrylate	Irritant, Allergen
1-Acetyl-2-phenylhydrazine	Allergen, Blood, Kidney, Mutagen, Some evidence of carcinogenicity

## 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

### 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/MDG)

**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:** None above reporting de minimus

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis  
**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). Acrylic acid (CAS# 79-10-7).

**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/NDL 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.

**WHMIS hazard class:** D.2.A, D.2.B

### 16. OTHER INFORMATION

**This material safety data sheet contains changes from the previous version in sections: 9, 14**

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