



Revision Number: 004.0

Issue date: 07/28/2022

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** LOCTITE 680 RETAIN CMPND 50 mL  
**Product type/use:** Anaerobic Adhesive  
**Restriction of Use:** None identified  
**Company address:**  
 Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 1835201  
**Item number:** 1835201  
**Region:** United States  
**Contact information:**  
 Telephone: +1 (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

**DANGER:** CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE DAMAGE.  
 SUSPECTED OF CAUSING CANCER.

| HAZARD CLASS       | HAZARD CATEGORY |
|--------------------|-----------------|
| SKIN IRRITATION    | 2               |
| SERIOUS EYE DAMAGE | 1               |
| SKIN SENSITIZATION | 1               |
| CARCINOGENICITY    | 2               |

### PICTOGRAM(S)



### Precautionary Statements

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection.

**Response:** IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing.

**Storage:** Store locked up.

**Disposal:** Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

1 % of the mixture consists of ingredient(s) of unknown acute toxicity.

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* |
|----------------------------------------|------------|-------------|
| 3,3,5 Trimethylcyclohexyl methacrylate | 7779-31-9  | 10 - 20     |

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|                                                             |            |         |
|-------------------------------------------------------------|------------|---------|
| 2-Hydroxyethyl methacrylate                                 | 868-77-9   | 10 - 20 |
| Polyurethane methacrylate resin                             | Unknown    | 5 - 10  |
| Acrylic acid                                                | 79-10-7    | 1 - 5   |
| Hydroxyalkyl methacrylate                                   | 27813-02-1 | 1 - 5   |
| Polyglycol dimethacrylate                                   | 109-16-0   | 0.1 - 1 |
| 1-Acetyl-2-phenylhydrazine                                  | 114-83-0   | 0.1 - 1 |
| methacrylic acid                                            | 79-41-4    | 0.1 - 1 |
| Cumene hydroperoxide                                        | 80-15-9    | 0.1 - 1 |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester | 2351-43-1  | 0.1 - 1 |

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

## 4. FIRST AID MEASURES

|                      |                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation:</b>   | Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.                                      |
| <b>Skin contact:</b> | Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention. |
| <b>Eye contact:</b>  | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.                                                       |
| <b>Ingestion:</b>    | DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.                   |
| <b>Symptoms:</b>     | See Section 11.                                                                                                                                                       |

## 5. FIRE FIGHTING MEASURES

|                                           |                                                                                                                                                      |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Extinguishing media:</b>               | Water spray (fog), foam, dry chemical or carbon dioxide.                                                                                             |
| <b>Special firefighting procedures:</b>   | Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray. |
| <b>Unusual fire or explosion hazards:</b> | Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.                                 |
| <b>Hazardous combustion products:</b>     | 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.

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environmental precautions:</b> | Do not allow product to enter sewer or waterways.                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Clean-up methods:</b>          | 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). Scrape up as much material as possible. 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

|                  |                                                                                                                                                                                               |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling:</b> | Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. Refer to Section 8. |
| <b>Storage:</b>  | For safe storage, store at or below 38 °C (100.4 °F)<br>Keep in a cool, well ventilated area away from heat, sparks and open flame.<br>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                             |
|-------------------------------------------------------------|---------------------|----------|----------------------------------|-----------------------------------|
| 3,3,5 Trimethylcyclohexyl methacrylate                      | None                | None     | None                             | None                              |
| 2-Hydroxyethyl methacrylate                                 | None                | None     | None                             | None                              |
| Polyurethane methacrylate resin                             | None                | None     | None                             | None                              |
| Acrylic acid                                                | 2 ppm TWA<br>(SKIN) | None     | None                             | 1 ppm TWA<br>3 ppm STEL<br>(SKIN) |
| Hydroxyalkyl methacrylate                                   | None                | None     | None                             | 1 ppm TWA<br>3 ppm STEL           |
| Polyglycol dimethacrylate                                   | None                | None     | None                             | None                              |
| 1-Acetyl-2-phenylhydrazine                                  | None                | None     | None                             | None                              |
| methacrylic acid                                            | 20 ppm TWA          | None     | None                             | None                              |
| Cumene hydroperoxide                                        | None                | None     | 1 ppm (6 mg/m3)<br>TWA<br>(SKIN) | None                              |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester | None                | None     | None                             | None                              |

### Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

### Respiratory protection:

Use a NIOSH approved air-purifying respirator with an organic vapor cartridge. If this material is handled at elevated temperatures or under mist forming conditions, without engineering controls, a NIOSH approved respirator must be used.

### 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                          |                                               |
|------------------------------------------|-----------------------------------------------|
| Physical state:                          | Liquid                                        |
| Color:                                   | Green                                         |
| Odor:                                    | Characteristic                                |
| Odor threshold:                          | Not available.                                |
| pH:                                      | Not applicable, Product is non-polar/aprotic. |
| Vapor pressure:                          | Not available.                                |
| Boiling point/range:                     | Not available.                                |
| Melting point/ range:                    | Not available.                                |
| Specific gravity:                        | 1.1                                           |
| Vapor density:                           | Not available.                                |
| Flash point:                             | 93.3 °C (199.94 °F)                           |
| Flammable/Explosive limits - lower:      | Not available.                                |
| Flammable/Explosive limits - upper:      | Not available.                                |
| Autoignition temperature:                | Not available.                                |
| Flammability:                            | Not applicable                                |
| Evaporation rate:                        | Not available.                                |
| Solubility in water:                     | Not available.                                |
| Partition coefficient (n-octanol/water): | Not available.                                |
| VOC content:                             | 0.43 %; 4.74 g/l                              |
| Viscosity:                               | Not available.                                |
| Decomposition temperature:               | Not available.                                |

## 10. STABILITY AND REACTIVITY

|                                          |                                                                                                                    |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Stability:</b>                        | Stable under normal conditions of storage and use.                                                                 |
| <b>Hazardous reactions:</b>              | None under normal processing.                                                                                      |
| <b>Hazardous decomposition products:</b> | Oxides of carbon. Oxides of sulfur. Oxides of nitrogen. Irritating organic vapours.                                |
| <b>Incompatible materials:</b>           | Peroxides. Free radical initiators. Alkali metals                                                                  |
| <b>Reactivity:</b>                       | Not available.                                                                                                     |
| <b>Conditions to avoid:</b>              | Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. |

## 11. TOXICOLOGICAL INFORMATION

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| <b>Relevant routes of exposure:</b> | Skin, Inhalation, Eyes, Ingestion |
|-------------------------------------|-----------------------------------|

## Potential Health Effects/Symptoms

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

| Hazardous Component(s)                                      | LD50s and LC50s                                                                                                                                                                                                                                                                                      | Immediate and Delayed Health Effects                               |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 3,3,5 Trimethylcyclohexyl methacrylate                      | None                                                                                                                                                                                                                                                                                                 | No Records                                                         |
| 2-Hydroxyethyl methacrylate                                 | Oral LD50 (Rat) = 11.2 g/kg<br>Oral LD50 (Rat) = 5,050 mg/kg                                                                                                                                                                                                                                         | Irritant, Allergen                                                 |
| Polyurethane methacrylate resin                             | None                                                                                                                                                                                                                                                                                                 | Irritant, Allergen                                                 |
| Acrylic acid                                                | Oral LD50 (Rat) = 33.5 mg/kg<br>Oral LD50 (Mouse) = 2,400 mg/kg<br>Oral LD50 (Rat) = 2.5 g/kg<br>Oral LD50 (Rat) = 193 mg/kg<br>Oral LD50 (Rat) = 1,250 mg/kg<br>Inhalation LC50 (Rat, 4 h) = 3.6 mg/l<br>Inhalation LC50 (Rat, 4 h) = > 3.9 - < 4.8 mg/l<br>Inhalation LC50 (Rat, 4 h) = > 5.1 mg/l | Allergen, Corrosive, Irritant, Kidney, Liver                       |
| Hydroxyalkyl methacrylate                                   | None                                                                                                                                                                                                                                                                                                 | Irritant, Allergen                                                 |
| Polyglycol dimethacrylate                                   | None                                                                                                                                                                                                                                                                                                 | Irritant, Allergen                                                 |
| 1-Acetyl-2-phenylhydrazine                                  | Oral LD50 (Mouse) = 270 mg/kg                                                                                                                                                                                                                                                                        | Allergen, Blood, Kidney, Mutagen, Some evidence of carcinogenicity |
| methacrylic acid                                            | Oral LD50 (Mouse) = 1,332 mg/kg<br>Oral LD50 (Mouse) = 1,600 mg/kg<br>Oral LD50 (Mouse) = 1,250 mg/kg<br>Oral LD50 (Rabbit) = 1,200 mg/kg<br>Oral LD50 (Rat) = 1,060 mg/kg<br>Oral LD50 (Rat) = 2,224 mg/kg<br>Dermal LD50 (Rabbit) = 500 mg/kg                                                      | Corrosive, Irritant, Allergen                                      |
| Cumene hydroperoxide                                        | None                                                                                                                                                                                                                                                                                                 | Allergen, Central nervous system, Corrosive, Irritant, Mutagen     |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester | None                                                                                                                                                                                                                                                                                                 | Allergen, Irritant                                                 |

| Hazardous Component(s)                                      | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|-------------------------------------------------------------|----------------|-----------------|------------------------------------------|
| 3,3,5 Trimethylcyclohexyl methacrylate                      | No             | No              | No                                       |
| 2-Hydroxyethyl methacrylate                                 | No             | No              | No                                       |
| Polyurethane methacrylate resin                             | No             | No              | No                                       |
| Acrylic acid                                                | No             | No              | No                                       |
| Hydroxyalkyl methacrylate                                   | No             | No              | No                                       |
| Polyglycol dimethacrylate                                   | No             | No              | No                                       |
| 1-Acetyl-2-phenylhydrazine                                  | No             | No              | No                                       |
| methacrylic acid                                            | No             | No              | No                                       |
| Cumene hydroperoxide                                        | No             | No              | No                                       |
| 2-Propenoic acid, 2-methyl-, 2-(2-hydroxyethoxy)ethyl ester | 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.

### 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:** RQ, Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III  
**DOT Hazardous Substance(s):** alpha,alpha-Dimethylbenzylhydroperoxide

#### International Air Transportation (ICAO/IATA)

**Proper shipping name:** RQ, Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III

#### Water Transportation (IMO/IMDG)

**Proper shipping name:** RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard class or division:** 9  
**Identification number:** UN 3082  
**Packing group:** III

### 15. REGULATORY INFORMATION

#### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.  
**TSCA 12 (b) Export Notification:** None above reporting de minimis  
**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). Acrylic acid (CAS# 79-10-7).  
**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:** Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

### 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 3,8,11,13,15

**Prepared by:** Product Safety and Regulatory Affairs

**Issue date:** 07/28/2022

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