



Revision Number: 006.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE AA 3412 known as Loctite® 3412 Structural ADH</b>	<b>IDH number:</b>	702049
<b>Product type:</b>	Tough acrylic	<b>Item number:</b>	32515_209777
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Corporation	Telephone: +1 (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**

**DANGER:** HIGHLY FLAMMABLE LIQUID AND VAPOR.  
 CAUSES SKIN IRRITATION.  
 MAY CAUSE AN ALLERGIC SKIN REACTION.  
 CAUSES SERIOUS EYE DAMAGE.  
 MAY CAUSE RESPIRATORY IRRITATION.  
 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR  
 REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection.

**Response:** If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if you feel unwell. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

**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*
Methyl methacrylate	80-62-6	30 - 60
Methacrylic acid	79-41-4	5 - 10
Urethane Methacrylate Oligomer~		1 - 5
Benzenesulfonyl chloride, 4-methyl-	98-59-9	1 - 5
Propylidynetrimethyl trimethacrylate	3290-92-4	1 - 5
Butyl hydroxytoluene	128-37-0	1 - 5
Cumene hydroperoxide	80-15-9	1 - 5
Triacrylate ester	Proprietary	0.1 - 1
2-Hydroxyethyl methacrylate	868-77-9	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

**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.

**Skin contact:** Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**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 unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

**Symptoms:** See Section 11.

### 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Dry chemical.

**Special firefighting procedures:** Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**Unusual fire or explosion hazards:** Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

**Hazardous combustion products:**

Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide. Methylene bisphenyl isocyanate. Cyclopentanone. Tetrahydrofuran.

## 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. Ensure adequate ventilation. Wear appropriate personal protective equipment. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up spilled material and place in a closed container for disposal.

## 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. During use and until all vapors are gone: Keep area ventilated - do not smoke; extinguish all flames, pilot lights, and heaters; turn off stoves, electrical tools and appliances, and any other sources of ignition. Make sure containers are properly grounded before use or transfer of material.

**Storage:**

For safe storage, store at or below 37.8 °C (100°F) Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame. Protect from direct sunlight. Maintain head space in storage containers to support oxygen requirements of the inhibitor(s).

## 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
Methyl methacrylate	50 ppm TWA 100 ppm STEL (Dermal sensitization)	100 ppm (410 mg/m <sup>3</sup> ) PEL	None	50 ppm
Methacrylic acid	20 ppm TWA	None	None	None
Urethane Methacrylate Oligomer~	None	None	None	None
Benzenesulfonyl chloride, 4-methyl-	None	None	5 mg/m <sup>3</sup> Ceiling (SKIN)	None
Propylidynetrimethyl trimethacrylate	None	None	1 mg/m <sup>3</sup> TWA	None
Butyl hydroxytoluene	2 mg/m <sup>3</sup> TWA Inhalable fraction and vapor.	None	None	None
Cumene hydroperoxide	None	None	1 ppm (6 mg/m <sup>3</sup> ) TWA (SKIN)	None
Triacrylate ester	None	None	None	None
2-Hydroxyethyl methacrylate	None	None	None	3 ppm Ceiling

**Engineering controls:**

Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established 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.

**Skin protection:**

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Milky white
<b>Odor:</b>	Pungent, Acrylic
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not available.
<b>Vapor pressure:</b>	29 mm hg (20 °C (68°F))
<b>Boiling point/range:</b>	101 °C (213.8 °F) Approximately
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	0.97
<b>Vapor density:</b>	> 1
<b>Flash point:</b>	10.6 °C (51.08 °F) Tagliabue closed cup
<b>Flammable/Explosive limits - lower:</b>	2.1 %
<b>Flammable/Explosive limits - upper:</b>	12.5 %
<b>Autoignition temperature:</b>	Not available.
<b>Flammability:</b>	Not applicable
<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>	1.98 %; 1.92 g/l (Adhesive and Activator mixed)
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	May occur with excessive aging, excessive heat, polymerization catalyst, inhibitor depletion, direct sunlight and under oxygen-free atmospheres.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of nitrogen. Hydrogen cyanide. Isocyanates. Tetrahydrofuran.
<b>Incompatible materials:</b>	Oxidizing agents. Strong alkalis. Strong acids and strong bases. Amines. Moisture. Reducing agents.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight. Loss of polymerization inhibitor. Loss of dissolved air.

## 11. TOXICOLOGICAL INFORMATION

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

**Potential Health Effects/Symptoms**

**Inhalation:** May cause respiratory tract irritation. Drowsiness. Dizziness.  
**Skin contact:** Causes skin irritation. May cause allergic skin reaction.  
**Eye contact:** Causes serious eye damage.  
**Ingestion:** May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Methyl methacrylate	Oral LD50 (Rat) = 7,800 mg/kg Oral LD50 (Rabbit) = 6,000 mg/kg Oral LD50 (Rat) = 9,400 mg/kg	Allergen, Irritant, Kidney, Liver, Mutagen, Nervous System, Respiratory
Methacrylic acid	Oral LD50 (Mouse) = 1,332 mg/kg Oral LD50 (Mouse) = 1,600 mg/kg Oral LD50 (Mouse) = 1,250 mg/kg 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	Corrosive, Irritant, Allergen
Urethane Methacrylate Oligomer~	None	No Data
Benzenesulfonyl chloride, 4-methyl-	None	Irritant, Allergen, Corrosive
Propylidynetrimethyl trimethacrylate	None	Irritant, Allergen
Butyl hydroxytoluene	Oral LD50 (Mouse) = 1,040 mg/kg Oral LD50 (Rat) = 890 mg/kg	Irritant, Mutagen
Cumene hydroperoxide	None	Allergen, Central nervous system, Corrosive, Irritant, Mutagen
Triacrylate ester	None	Allergen, Irritant
2-Hydroxyethyl methacrylate	Oral LD50 (Mouse) = 3,275 mg/kg Oral LD50 (Rat) = 11.2 g/kg Oral LD50 (Rat) = 5,050 mg/kg	Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Methyl methacrylate	No	No	No
Methacrylic acid	No	No	No
Urethane Methacrylate Oligomer~	No	No	No
Benzenesulfonyl chloride, 4-methyl-	No	No	No
Propylidynetrimethyl trimethacrylate	No	No	No
Butyl hydroxytoluene	No	No	No
Cumene hydroperoxide	No	No	No
Triacrylate ester	No	No	No
2-Hydroxyethyl methacrylate	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:** D001: Ignitable.

## 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:** Adhesives (Up to 55 ml max per inner/primary package when shipped as originally packaged only)  
**Hazard class or division:** 3  
**Identification number:** UN 1133  
**Packing group:** II  
**DOT Hazardous Substance(s):** alpha,alpha-Dimethylbenzylhydroperoxide, Methyl methacrylate

### International Air Transportation (ICAO/IATA)

**Proper shipping name:** Adhesives (Up to 55 ml max per inner/primary package when shipped as originally packaged only)  
**Hazard class or division:** 3  
**Identification number:** UN 1133  
**Packing group:** II

### Water Transportation (IMO/IMDG)

**Proper shipping name:** ADHESIVES (Up to 55 ml max per inner/primary package when shipped as originally packaged only)  
**Hazard class or division:** 3  
**Identification number:** UN 1133  
**Packing group:** II

## 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 minimis

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.

**CERCLA/SARA Section 311/312:** Fire, 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). Methyl methacrylate (CAS# 80-62-6). Cumene hydroperoxide (CAS# 80-15-9).  
**CERCLA Reportable quantity:** Methyl methacrylate (CAS# 80-62-6) 1,000 lbs. (454 kg)  
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/NDL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2,3

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

**Issue date:** 01/04/2019

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