SAFETY DATA SHEET

A CRH COMPANY

Revision Number: 6.1
CRL Catalog Number: UV349

Issue date: 04/08/2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE AA 349 UV GLASS BONDER known as Impruv® Optically Clear UV Adh**
IDH number: 88489
Product type/use: Ultraviolet adhesive
Restriction of Use: None identified
Region: United States
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

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.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1

PICTOGRAM(S)

Precautionary Statements

Prevention: 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, eye protection, 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 skin irritation or rash occurs: 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

3. COMPOSITION / INFORMATION ON INGREDIENTS (CONTINUED)

Hazardous Component(s)	CAS Number	Percentage*
Cyclohexanol, 4,4′-(1-methylethylidene)bis-, polymer with 1,3-diisocyanatomethylbenzene and tetrahydrofuran, propylene glycol monome	2243075-64-9	30 - 60
Isobornyl methacrylate	7534-94-3	10 - 30
Hydroxyalkyl methacrylate	27813-02-1	10 - 30
Lauryl methacrylate	142-90-5	5 - 10
Acrylic acid	79-10-7	1 - 5
Tetradecyl methacrylate	2549-53-3	1 - 5
Gamma-glycidoxypropyl trimethoxysilane	2530-83-8	1 - 5
Hexadecyl methacrylate	2495-27-4	1 - 5

* 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 not breathing, give artificial respiration. If breathing is difficult, give oxygen. 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.

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. Never give anything by mouth to an unconscious person. Keep individual calm. Get medical attention.

Symptoms: See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media: 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 cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. Formaldehyde. 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: Ensure adequate ventilation. 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: 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. For operations where eye or face contact could occur, provide safety shower and eyewash fountain.

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
Cyclohexanol, 4,4′-(1-methylethylidene)bis-, polymer with 1,3-diisocyanatomethylbenzene and tetrahydrofuran, propylene glycol monome	None	None	None	None
Isobornyl methacrylate	None	None	None	None
Hydroxyalkyl methacrylate	None	None	None	1 ppm TWA 3 ppm STEL
Lauryl methacrylate	None	None	None	50 ppm
Acrylic acid	2 ppm TWA (SKIN)	None	None	1 ppm TWA 3 ppm STEL (SKIN)
Tetradecyl methacrylate	None	None	None	50 ppm TWA 75 ppm STEL
Gamma-glycidoxypropyl trimethoxysilane	None	None	None	None
Hexadecyl methacrylate	None	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.

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: Clear
Odor: Sharp, Irritating
Odor threshold: Not available.
pH: Not applicable
Vapor pressure: < 10 mm hg (27 °C (80.6 °F))
Boiling point/range: > 149 °C (> 300.2 °F)
Melting point/ range: Not available.
Specific gravity: 1.02
Vapor density: Not available.
Flash point: > 93.3 °C (> 199.94 °F) Tagliabue closed cup
Flammable/Explosive limits - lower: Not available.
Flammable/Explosive limits - upper: Not available.
Autoignition temperature: Not available.
Flammability: Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES (CONTINUED)

Evaporation rate:	Not available.
Solubility in water:	Slight
Partition coefficient (n-octanol/water):	Not available.
VOC content:	1.82 %; 17.37 g/l (ASTM D5403)
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. Oxides of nitrogen. Silicon dioxide. Formaldehyde. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents. Reducing agents. Acids. Bases. Heavy metals. Free radical initiators. Copper alloys. Inert gases. Oxygen scavengers. Alkalis.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. Protect from direct sunlight. Freezing conditions. UV light. Inert gas blanketing. Avoid moisture.

11. TOXICOLOGICAL INFORMATION

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

11. TOXICOLOGICAL INFORMATION (CONTINUED)

Potential Health Effects/Symptoms

Inhalation: Irritates the nose, throat and respiratory system.
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
Cyclohexanol, 4,4′-(1-methylethylidene)bis-, polymer with 1,3-diisocyanatomethylbenzene and tetrahydrofuran, propylene glycol monome	None	Irritant, Allergen
Isobornyl methacrylate	None	Irritant, Allergen
Hydroxyalkyl methacrylate	None	Irritant, Allergen
Lauryl methacrylate	Oral LD50 (Rat) = > 5.0 g/kg Oral LD50 (Mouse) = > 87,250 mg/kg	Irritant, Allergen
Acrylic acid	Oral LD50 (Rat) = 33.5 mg/kg Oral LD50 (Mouse) = 2,400 mg/kg Oral LD50 (Rat) = 2.5 g/kg Oral LD50 (Rat) = 193 mg/kg Oral LD50 (Rat) = 1,250 mg/kg	Allergen, Corrosive, Irritant, Kidney, Liver
Tetradecyl methacrylate	None	Irritant, Allergen
Gamma-glycidoxypropyl trimethoxysilane	None	Allergen, Irritant
Hexadecyl methacrylate	None	Irritant, Allergen

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Cyclohexanol, 4,4′-(1-methylethylidene)bis-, polymer with 1,3-diisocyanatomethylbenzene and tetrahydrofuran, propylene glycol monome	No	No	No
Isobornyl methacrylate	No	No	No
Hydroxyalkyl methacrylate	No	No	No
Lauryl methacrylate	No	No	No
Acrylic acid	No	No	No
Tetradecyl methacrylate	No	No	No
Gamma-glycidoxypropyl trimethoxysilane	No	No	No
Hexadecyl 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: Dispose of according to Federal, State and local governmental regulations.

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)

14. TRANSPORT INFORMATION (CONTINUED)

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:	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).
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:	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

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16. OTHER INFORMATION (CONTINUED)

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