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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Loctite(R) 3494 Adhesive Visible UV Cure
Product type: Ultraviolet adhesive
IDH number: 234138
Item number: 29487
Region: United States

Company address:
Henkel Corporation
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067

Contact information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

Physical state:	Liquid	**HEALTH:**	*2
Color:	Clear	**FLAMMABILITY:**	2
Odor:	Sharp	**PHYSICAL HAZARD:**	1
		Personal Protection:	See MSDS Section 8

WARNING: COMBUSTIBLE LIQUID AND VAPOR.
CAUSES EYE AND SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY BE HARMFUL IF SWALLOWED.

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

Potential Health Effects

Inhalation: May cause respiratory tract irritation. May cause irritation to nose and throat. Headache. Nausea.
Skin contact: Causes skin irritation. May cause allergic skin reaction.
Eye contact: Vapors may irritate eyes. Contact with eyes will cause irritation.
Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation if swallowed.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders. Acrylic acid: Respiratory disorders. Lung disease.

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	%
Polyurethane Methacrylate Resin	Proprietary	30 - 60
Isobornyl acrylate	5888-33-5	10 - 30
2-Hydroxyethyl methacrylate	868-77-9	10 - 30
High boiling methacrylate	7534-94-3	5 - 10
Acrylic acid	79-10-7	1 - 5
Hydroxyalkyl methacrylate	27813-02-1	1 - 5
Photoinitiator	947-19-3	1 - 5
Gamma-glycidoxypropyl trimethoxysilane	2530-83-8	1 - 5
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	75980-60-8	1 - 5
Ethylene glycol	107-21-1	0.1 - 1

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Skin contact: Wash with soap and water. Remove contaminated clothing and footwear. Wash clothing before reuse. If symptoms develop and persist, get medical attention.

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

5. FIRE FIGHTING MEASURES

Flash point: 87.8 °C (190.04 °F) Tagliabue closed cup

Autoignition temperature: Not available

Flammable/Explosive limits - lower: Not available

Flammable/Explosive limits - upper: Not available

Extinguishing media: If product is involved in fire extinguish with dry powder, foam or carbon dioxide.

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

Unusual fire or explosion hazards: None expected.

Hazardous combustion products: Oxides of carbon. Oxides of phosphorus. Oxides of nitrogen. Irritating organic vapours. Oxides of silicon. Formaldehyde

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: 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. Ensure adequate ventilation.

7. HANDLING AND STORAGE

Handling: Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. Use only with adequate ventilation.

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.

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
Polyurethane Methacrylate Resin	None	None	None	None
Isobornyl acrylate	None	None	None	None
2-Hydroxyethyl methacrylate	None	None	None	3 ppm Ceiling
High boiling methacrylate	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
Photoinitiator	None	None	None	None
Gamma-glycidoxypropyl trimethoxysilane	None	None	None	None
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	None	None	None	None
Ethylene glycol	100 mg/m3 Ceiling Aerosol.	None	None	None

Engineering controls: Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational 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.

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
Odor threshold: Not available
pH: Not applicable
Vapor pressure: < 10 mm hg (24 °C (75.2 °F))
Boiling point/range: > 149 °C (> 300.2 °F)
Melting point/ range: Not available
Specific gravity: 1.024
Vapor density: Not available
Flash point: 87.8 °C (190.04 °F) Tagliabue closed cup
Flammable/Explosive limits - lower: Not available
Flammable/Explosive limits - upper: Not available
Autoignition temperature: Not available
Evaporation rate: Not available
Solubility in water: Slight
Partition coefficient (n-octanol/water): Not available

VOC content: 0.68 %; 6.96 g/l (process)
0.41 %; 4.20 g/l (potential)
1.09 %; 11.16 g/l (total)
(ASTM D5403)

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous reactions: Will not occur.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen. Oxides of phosphorus. Irritating organic vapours.

Incompatible materials: Strong oxidizing agents. Reducing agents. Free radical initiators. Acids and bases. Peroxides. Alkalis.

Conditions to avoid: Keep away from heat, ignition sources and incompatible materials. UV light.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Polyurethane Methacrylate Resin	No	No	No
Isobornyl acrylate	No	No	No
2-Hydroxyethyl methacrylate	No	No	No
High boiling methacrylate	No	No	No
Acrylic acid	No	No	No
Hydroxyalkyl methacrylate	No	No	No
Photoinitiator	No	No	No
Gamma-glycidoxypropyl trimethoxysilane	No	No	No
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	No	No	No
Ethylene glycol	No	No	No

Hazardous components	Health Effects/Target Organs
Polyurethane Methacrylate Resin	Irritant, Allergen
Isobornyl acrylate	Irritant, Allergen
2-Hydroxyethyl methacrylate	Irritant, Allergen
High boiling methacrylate	Irritant, Allergen
Acrylic acid	Allergen, Corrosive, Irritant, Kidney, Liver
Hydroxyalkyl methacrylate	Irritant, Allergen
Photoinitiator	No Records
Gamma-glycidoxypropyl trimethoxysilane	Irritant, Allergen
Diphenyl-2,4,6-trimethylbenzoyl phosphine oxide	No Records
Ethylene glycol	Blood, Bone Marrow, Central nervous system, Developmental, Eyes, Irritant, Kidney, Liver, Metabolic

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 shipping classification in this section are for bulk packaging only. Shipping classification may be different for non-bulk packaging as exceptions may apply. Refer to shipping documents for package specific transportation classification.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name:	Combustible liquid, n.o.s. (Acrylic acid)
Hazard class or division:	Combustible Liquid
Identification number:	NA 1993
Packing group:	III

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 minimus
CERCLA/SARA Section 302 EHS:	None above reporting de minimus
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health, Fire
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.

Canada Regulatory Information

CEPA DSL/NDSL Status:	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
WHMIS hazard class:	B.3, D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format. 2,3,4,5,8,9,10,11,14, and 15

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