

Material Safety Data Sheet



Revision Number: 003.0

Issue date: 02/23/2009

1. PRODUCT AND COMPANY IDENTIFICATION

| | | | |
|-------------------------------|--|---------------------|---------------|
| Product name: | Loctite(R) 3493 Light Cure Adhesive UV Cure | IDH number: | 202156 |
| Product type: | Ultraviolet adhesive | Item number: | 18751 |
| | | Region: | United States |
| Company address: | Contact information: | | |
| Henkel Corporation | Telephone: 860.571.5100 | | |
| 1001 Trout Brook Crossing | Emergency telephone: 860.571.5100 | | |
| Rocky Hill, Connecticut 06067 | Internet: www.henkelna.com | | |

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

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

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

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

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| Inhalation: | May cause respiratory tract irritation. May cause irritation to nose and throat. |
| 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-glycidioxypropyl trimethoxysilane | 2530-83-8 | 1 - 5 |
| Ethylene glycol | 107-21-1 | 0.1 - 1 |

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4. FIRST AID MEASURES

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| Inhalation: | Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention. |
| Skin contact: | Immediately wash skin thoroughly 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. Never give anything by mouth to an unconscious person. Keep individual calm. Get medical attention. |

5. FIRE FIGHTING MEASURES

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| Flash point: | > 93.4 °C (> 200.12 °F) Tagliabue closed cup |
| Autoignition temperature: | Not available |
| Flammable/Explosive limits - lower: | Not available |
| Flammable/Explosive limits - upper: | Not available |
| 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. |
| Unusual fire or explosion hazards: | None expected. |
| Hazardous combustion products: | Oxides of carbon. Oxides of nitrogen. Irritating organic vapours. Isocyanates. Hydrogen cyanide. Amines. |

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

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| 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. |

7. HANDLING AND STORAGE

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| 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-glycidioxypropyl trimethoxysilane | None | None | None | None |
| Ethylene glycol | 100 mg/m3 Ceiling Aerosol. | None | None | None |

| | |
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| 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. |
| 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

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| 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: | 1.09 |
| Vapor density: | Not available |
| Flash point: | > 93.4 °C (> 200.12 °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: | < 4 %; < 42 g/l |

10. STABILITY AND REACTIVITY

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| Stability: | Stable |
| Hazardous reactions: | Will not occur. |
| Hazardous decomposition products: | Oxides of carbon. Oxides of nitrogen. Irritating organic vapours. Isocyanates. Hydrogen cyanide. Amines. |
| Incompatible materials: | Strong oxidizing agents. Reducing agents. Alkalis. Free radical initiators. Oxygen scavengers. |
| Conditions to avoid: | Store away from incompatible materials. Keep away from heat, spark and flame. |

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 |
| 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 |
| 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 classifications in this sections are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk packaging.

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/IMDG)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

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|--|---|
| 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 |
| 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

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|-----------------------------|---|
| CEPA DSL/NDL Status: | All components are listed on or are exempt from listing on the Canadian 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: New Material Safety Data Sheet format. 2,3,4,5,8,9,10,11, and 15

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