



Revision Number: 002.0

Issue date: 02/16/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE FP6101-V19A3
Product type: Underfill
Company address: Henkel Corporation
 15350 Barranca Parkway
 Irvine, CA 92618
IDH number: 506974
Item number: FP6101-V19
Region: United States
Contact information:
 Telephone: 1.888.9.HENKEL (1.888.943.6535)
 Emergency telephone: 860.571.5100
 Internet: www.henkelna.com

Contains one or more components for which a Toxic Substances Control Act (TSCA) Low Volume Exemption (LVE) applies. See Section 15.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

| | | | |
|------------------------|-----------------|-----------------------------|--------------------|
| Physical state: | Viscous, Liquid | HEALTH: | *3 |
| Color: | Black | FLAMMABILITY: | 1 |
| Odor: | Slight | PHYSICAL HAZARD: | 0 |
| | | Personal Protection: | See MSDS Section 8 |

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

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

Potential Health Effects

Inhalation: May cause allergic respiratory reaction. Severe respiratory tract irritation. Coughing.
Skin contact: May be harmful if absorbed through skin. May cause allergic skin reaction. May cause severe skin irritation. Pain and discomfort. Swelling. Itching. Redness. Burning sensation.
Eye contact: May cause severe eye irritation. Repeated or prolonged contact may cause burns. Redness. Excess tearing. Pain and discomfort. Blurred vision.
Ingestion: May be harmful if swallowed.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders. Pre-existing skin or lung allergies may increase the chance of developing exaggerated allergic symptoms from exposure to this product. Asthma. Eczema.

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 | % |
|------------------------------------|-------------|---------|
| Epoxy resin | Proprietary | 30 - 60 |
| Polymer Resin | Proprietary | 10 - 30 |
| Tetrahydromethylphthalic anhydride | 11070-44-3 | 10 - 30 |
| Fatty acids | Proprietary | 5 - 10 |
| Polypropylene glycol | 25322-69-4 | 5 - 10 |
| Imidazole derivatives | Unknown | 1 - 5 |
| Trimer acid | Proprietary | 1 - 5 |

4. FIRST AID MEASURES

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| Inhalation: | If symptoms develop and persist, get medical attention. If breathing is difficult, give oxygen. Move to fresh air. If not breathing, give artificial respiration. |
| 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: | Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. 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. Give a conscious person several glasses of water. If symptoms develop and persist, get medical attention. |

5. FIRE FIGHTING MEASURES

| | |
|--|--|
| Flash point: | > 121.1 °C (> 249.98 °F) |
| Autoignition temperature: | Not available |
| Flammable/Explosive limits - lower: | Not available |
| Flammable/Explosive limits - upper: | Not available |
| Extinguishing media: | Water spray (fog), 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: | Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. |
| Hazardous combustion products: | Hydrocarbons. Oxides of carbon. Oxides of nitrogen. Aldehydes. Ketones. Organic acids. |

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 the absorbed material, and place in an appropriate chemical waste container for disposal. 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). |

7. HANDLING AND STORAGE

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|------------------|--|
| Handling: | Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Do not breathe gas/fumes/vapor/spray. Wash thoroughly after handling. |
| Storage: | 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, please review labels on container or check the Technical Data Sheet.

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 |
|------------------------------------|-----------|----------|--------------------------|-------|
| Epoxy resin | None | None | None | None |
| Polymer Resin | None | None | None | None |
| Tetrahydromethylphthalic anhydride | None | None | None | None |
| Fatty acids | None | None | None | None |
| Polypropylene glycol | None | None | 10 mg/m3 TWA Aerosol. | None |
| Imidazole derivatives | None | None | None | None |
| Trimer acid | None | 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:

Full face protection should be used if the potential for splashing or spraying of product exists. Safety goggles or safety glasses with side shields.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|----------------------------------|
| Physical state: | Viscous, Liquid |
| Color: | Black |
| Odor: | Slight |
| Odor threshold: | Not available |
| pH: | Not available |
| Vapor pressure: | Not available |
| Boiling point/range: | Not available |
| Melting point/ range: | Not available |
| Specific gravity: | 1.12 |
| Vapor density: | Not available |
| Flash point: | > 121.1 °C (> 249.98 °F) |
| Flammable/Explosive limits - lower: | Not available |
| Flammable/Explosive limits - upper: | Not available |
| Autoignition temperature: | Not available |
| Evaporation rate: | Not available |
| Solubility in water: | Not miscible or difficult to mix |
| Partition coefficient (n-octanol/water): | Not available |
| VOC content: | Not available |

10. STABILITY AND REACTIVITY

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| Stability: | Stable at normal conditions. |
| Hazardous reactions: | None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials. |
| Hazardous decomposition products: | None reasonably foreseeable. |
| Incompatible materials: | Oxidizing agents. Bases. Isocyanates. Water Acids. |
| Conditions to avoid: | Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. |

11. TOXICOLOGICAL INFORMATION

| Hazardous components | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|------------------------------------|----------------|-----------------|---|
| Epoxy resin | No | No | No |
| Polymer Resin | No | No | No |
| Tetrahydromethylphthalic anhydride | No | No | No |
| Fatty acids | No | No | No |
| Polypropylene glycol | No | No | No |
| Imidazole derivatives | No | No | No |
| Trimer acid | No | No | No |

| Hazardous components | Health Effects/Target Organs |
|------------------------------------|---|
| Epoxy resin | Allergen, Irritant |
| Polymer Resin | No Data |
| Tetrahydromethylphthalic anhydride | Allergen, Corrosive, Irritant, Respiratory |
| Fatty acids | No Records |
| Polypropylene glycol | Allergen, Cardiac, Central nervous system, Irritant |
| Imidazole derivatives | No Data |
| Trimer acid | No Records |

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: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

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

Proper shipping name: Not regulated (Up to 6 oz. max per inner/primary package when shipped as originally packaged only)
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorhydrine resin) (Up to 6 oz. max per inner/primary package when shipped as originally packaged only)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrine resin) (Up to 6 oz. max per inner/primary package when shipped as originally packaged only)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
Marine pollutant: Bisphenol-A Epichlorhydrine resin

15. REGULATORY INFORMATION

United States Regulatory Information

| | |
|---|--|
| TSCA 8 (b) Inventory Status: | All components of this product are listed on the U.S. Toxic Substances Control Act (TSCA) inventory or are exempt from listing because a Low Volume Exemption (LVE) has been granted in accordance with 40 CFR 723.50. All components of this product are listed on the U.S. Toxic Substances Control Act (TSCA) inventory or are exempt from listing because a Polymer Exemption has been granted in accordance with 40 CFR 723.250 |
| TSCA 12(b) Export Notification: | None above reporting de minimus |
| CERCLA/SARA Section 302 EHS: CERCLA/SARA Section 311/312: CERCLA/SARA 313: | None above reporting de minimus Immediate Health, Delayed Health None above reporting de minimus |
| 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: | One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-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: Corrected information in Section(s): 3, 7, 14

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