



Revision Number: 003.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE EA 3473 known as Fixmaster **Fast Set Steel Putty** **IDH number:** 702088
Product type: Epoxy Hardener **Item number:** 39917_220000
Restriction of Use: None identified **Region:** United States
Company address: **Contact information:**
 Henkel Corporation Telephone: (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

WARNING: CAUSES SKIN IRRITATION.
 MAY CAUSE AN ALLERGIC SKIN REACTION.
 CAUSES SERIOUS EYE IRRITATION.

| HAZARD CLASS | HAZARD CATEGORY |
|--------------------|-----------------|
| SKIN IRRITATION | 2 |
| EYE IRRITATION | 2A |
| SKIN SENSITIZATION | 1 |

PICTOGRAM(S)



Precautionary Statements

Prevention: Avoid breathing dust or fumes. 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. If eye irritation persists: 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

| Hazardous Component(s) | CAS Number | Percentage* |
|---|------------|-------------|
| Poly[oxy(methyl-1,2-ethanediy)], a-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptop | 72244-98-5 | 50 - 60 |
| Quartz (SiO ₂) | 14808-60-7 | 20 - 30 |
| Calcium carbonate | 471-34-1 | 10 - 20 |
| Aluminum | 7429-90-5 | 1 - 5 |
| 2,4,6-Tris(dimethylaminomethyl)phenol | 90-72-2 | 1 - 5 |
| Titanium dioxide | 13463-67-7 | 1 - 5 |
| Bis[(dimethylamino)methyl]phenol | 71074-89-0 | 0.1 - 1 |
| Aluminium hydroxide | 21645-51-2 | 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

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| 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. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse. |
| Eye contact: | Rinse immediately with plenty of water, also under the eyelids, 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. Get medical attention. |
| Symptoms: | See Section 11. |

5. FIRE FIGHTING MEASURES

| | |
|---|--|
| 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. May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses. |
| Hazardous combustion products: | Oxides of carbon, oxides of nitrogen, irritating organic vapors. Oxides of sulfur. Ammonia. |

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. 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). Scrape up as much material as possible. 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. Keep container closed. Refer to Section 8.

Storage:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Store away from heat, sparks, flames, or other sources of ignition.

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 |
|--|--|---|-----------|-------|
| Poly[oxy(methyl-1,2-ethanediyl)], a-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptop | None | None | None | None |
| Quartz (SiO ₂) | 0.025 mg/m ³ TWA Respirable fraction. | 2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.05 mg/m ³ TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m ³ OSHA_ACT (Respirable dust.) 0.05 mg/m ³ PEL Respirable dust. | None | None |
| Calcium carbonate | 10 mg/m ³ TWA Total dust. | 5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust. | None | None |
| Aluminum | 1 mg/m ³ TWA Respirable fraction. | 15 mg/m ³ PEL (as Al) Total dust. 5 mg/m ³ PEL (as Al) Respirable fraction. 15 MPPCF TWA Respirable fraction. 50 MPPCF TWA Total dust. 5 mg/m ³ TWA Respirable fraction. 15 mg/m ³ TWA Total dust. | None | None |
| 2,4,6-Tris(dimethylaminomethyl)phenol | None | None | None | None |
| Titanium dioxide | 10 mg/m ³ TWA | 15 mg/m ³ PEL Total dust. 15 MPPCF TWA Respirable fraction. 15 mg/m ³ TWA Total dust. 50 MPPCF TWA Total dust. 5 mg/m ³ TWA Respirable fraction. | None | None |
| Bis[(dimethylamino)methyl]phenol | None | None | None | None |
| Aluminium hydroxide | 1 mg/m ³ TWA Respirable fraction. 10 mg/m ³ TWA (as Al) Total dust. | 15 mg/m ³ TWA (as Al) Total dust. 5 mg/m ³ TWA (as Al) Respirable fraction. 15 MPPCF TWA Respirable fraction. 15 mg/m ³ TWA Total dust. 5 mg/m ³ TWA Respirable fraction. 50 MPPCF TWA Total dust. | None | None |

| | |
|--------------------------------|---|
| Engineering controls: | Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. |
| Respiratory protection: | Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists. |
| 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. Safety showers and eye wash stations should be available. |
| 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

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|---|---|
| Physical state: | Paste |
| Color: | White |
| Odor: | Pungent |
| Odor threshold: | Not available. |
| pH: | Not available. |
| Vapor pressure: | Not determined |
| Boiling point/range: | 199 °C (390.2 °F) |
| Melting point/ range: | Not available. |
| Specific gravity: | 1.7551 |
| Vapor density: | Heavier than air. |
| Flash point: | 121 °C (249.8 °F) Tagliabue closed cup |
| Flammable/Explosive limits - lower: | Not available. |
| Flammable/Explosive limits - upper: | Not available. |
| Autoignition temperature: | Not available. |
| Flammability: | Not applicable |
| Evaporation rate: | Slower than butyl acetate. |
| Solubility in water: | Slight |
| Partition coefficient (n-octanol/water): | Not available. |
| VOC content: | < 1.0 % (value for resin and hardener together) (estimated) |
| 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. |
| Hazardous decomposition products: | Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Ammonia. Irritating organic vapours. |
| Incompatible materials: | Strong bases. Strong oxidizing agents. Chlorinated rubber. Reaction with epoxy resins and/or isocyanates in large amounts or under uncontrolled conditions releases considerable heat and may release acrid fumes. |
| Reactivity: | Not available. |
| Conditions to avoid: | Elevated temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials. |

11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects/Symptoms

Inhalation: Inhalation of vapors or mists of the product may be irritating to the respiratory system. Vapors may cause headaches, nausea, dizziness and respiratory tract irritation. Abrasion of cured material such as by sanding or grinding could release respirable particles of silica quartz, a cancer hazard by inhalation. Normal use of this product causes no such release.

Skin contact: Causes skin irritation. May cause allergic skin reaction. Redness.

Eye contact: Causes serious eye irritation. Redness. May injure eye tissue if not removed promptly.

Ingestion: May cause gastrointestinal tract irritation if swallowed.

| Hazardous Component(s) | LD50s and LC50s | Immediate and Delayed Health Effects |
|--|--|---|
| Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptop | None | No Records |
| Quartz (SiO2) | None | Immune system, Lung, Some evidence of carcinogenicity |
| Calcium carbonate | Oral LD50 (Rat) = 6,450 mg/kg Oral LD50 (Mouse) = 6,450 mg/kg | Nuisance dust |
| Aluminum | None | Central nervous system, Irritant, Lung |
| 2,4,6-Tris(dimethylaminomethyl)phenol | None | Irritant, Allergen |
| Titanium dioxide | None | Irritant, Respiratory, Some evidence of carcinogenicity |
| Bis(dimethylamino)methylphenol | None | No Records |
| Aluminium hydroxide | Oral LD50 (Rat) = > 5,000 mg/kg | Irritant, Lung, Respiratory |

| Hazardous Component(s) | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|--|-------------------------------|-----------------|--|
| Poly[oxy(methyl-1,2-ethanediyl)], a-hydro-w-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptop | No | No | No |
| Quartz (SiO2) | Known To Be Human Carcinogen. | Group 1 | Yes |
| Calcium carbonate | No | No | No |
| Aluminum | No | No | No |
| 2,4,6-Tris(dimethylaminomethyl)phenol | No | No | No |
| Titanium dioxide | No | Group 2B | No |
| Bis(dimethylamino)methylphenol | No | No | No |
| Aluminium hydroxide | 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: 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)

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). Aluminum (CAS# 7429-90-5).

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.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

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