



Revision Number: 002.0

Issue date: 08/05/2019

**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE ECCOBOND FP4450HF</b> known as HYSOL FP4450HF 10CC <b>FINE FILLER</b>	<b>IDH number:</b>	397701
<b>Product type/use:</b>	Epoxy adhesive	<b>Item number:</b>	FP0089-V24
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067	<b>Contact information:</b>	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

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**

**DANGER:** CAUSES SKIN IRRITATION.  
MAY CAUSE AN ALLERGIC SKIN REACTION.  
CAUSES SERIOUS EYE IRRITATION.  
MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.  
MAY CAUSE RESPIRATORY IRRITATION.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

**PICTOGRAM(S)**



**Precautionary Statements**

**Prevention:** Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

**Response:** IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. 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. If experiencing respiratory symptoms: Call a poison center or physician. Take off contaminated clothing.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.  
**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*
Silica, vitreous	60676-86-0	60 - 80
Hexahydromethylphthalic anhydride	25550-51-0	10 - 30
Silicon dioxide	7631-86-9	5 - 10
2,2'-((3,5',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxyethylene))-bis-oxirane	85954-11-6	5 - 10
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	1 - 5
7-Oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate	2386-87-0	1 - 5
Substituted phthalic anhydride	34090-76-1	1 - 5
Bisphenol-F Epichlorohydrin resin	9003-36-5	0.1 - 1
Butadiene, acrylonitrile polymer, carboxy-terminated, polymer with bisphenol A and epichlorohydrin	68610-41-3	0.1 - 1
Carbon black	1333-86-4	0.1 - 1
4,4'-carbonyldipthalic acid compd. with 2-methyl-1H-imidazole (1:2)	172140-94-2	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

**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:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Ingestion:** Do not induce vomiting. 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.

**Hazardous combustion products:**

Oxides of carbon. Toxic and irritating vapors.

## 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. Ensure adequate ventilation. Isolate area. Keep unnecessary personnel away. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Store in a closed container until ready for 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. Refer to Section 8.

**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 Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Silica, vitreous	None	20 MPPCF TWA 0.8 mg/m <sup>3</sup> TWA	None	None
Hexahydromethylphthalic anhydride	None	None	None	None
Silicon dioxide	6 mg/m <sup>3</sup> TWA	20 MPPCF TWA 0.8 mg/m <sup>3</sup> TWA	None	3 mg/m <sup>3</sup> TWA Respirable fraction.
2,2'-((3,5',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxyethylene))-bis-oxirane	None	None	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
7-Oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate	None	None	None	None
Substituted phthalic anhydride	(SKIN) 0.0003 ppm STEL 0.00007 ppm TWA 0.7 mg/100 cm <sup>2</sup> TLV-SL (Dermal sensitization) (Respiratory sensitization)	None	None	None
Bisphenol-F Epichlorohydrin resin	None	None	None	None
Butadiene, acrylonitrile polymer, carboxy-terminated, polymer with bisphenol A and epichlorohydrin	None	None	None	None
Carbon black	3 mg/m <sup>3</sup> TWA Inhalable fraction.	3.5 mg/m <sup>3</sup> PEL	None	None
4,4'-carbonyldipthalic acid compd. with 2-methyl-1H-imidazole (1:2)	None	None	None	None

**Engineering controls:**

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

<b>Respiratory protection:</b>	Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.
<b>Eye/face protection:</b>	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.
<b>Skin protection:</b>	Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Black
<b>Odor:</b>	Mild
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not available.
<b>Vapor pressure:</b>	Not available.
<b>Boiling point/range:</b>	Not available.
<b>Melting point/ range:</b>	Not available.
<b>Specific gravity:</b>	1.7
<b>Vapor density:</b>	Not available.
<b>Flash point:</b>	> 93 °C (> 199.4 °F)
<b>Flammable/Explosive limits - lower:</b>	Not available.
<b>Flammable/Explosive limits - upper:</b>	Not available.
<b>Autoignition temperature:</b>	Not available.
<b>Flammability:</b>	Not applicable
<b>Evaporation rate:</b>	Not available.
<b>Solubility in water:</b>	Insoluble
<b>Partition coefficient (n-octanol/water):</b>	Not available.
<b>VOC content:</b>	< 0.1 %
<b>Viscosity:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Hydrocarbons. Irritating organic vapours.
<b>Incompatible materials:</b>	Strong acids and oxidizing agents. Water, amines, alkalis and alcohols.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	High temperatures. Store away from incompatible materials. Heat, flames, sparks and other sources of ignition. Avoid contact with water.

## 11. TOXICOLOGICAL INFORMATION

<b>Relevant routes of exposure:</b>	Skin, Inhalation, Eyes
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### Potential Health Effects/Symptoms

<b>Inhalation:</b>	May cause respiratory tract irritation. May cause allergic respiratory reaction. Coughing. Wheezing. Shortness of breath.
<b>Skin contact:</b>	Causes skin irritation. May cause allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye irritation. Prolonged contact may cause severe irritation or corneal burns.
<b>Ingestion:</b>	May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Silica, vitreous	None	Nuisance dust
Hexahydromethylphthalic anhydride	None	Allergen, Respiratory, Irritant
Silicon dioxide	Oral LD50 (Rat) = > 22,500 mg/kg Oral LD50 (Mouse) = > 15,000 mg/kg	Nuisance dust
2,2'-((3,5',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	None	Irritant, Allergen, Mutagen
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant
7-Oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate	None	Allergen, Irritant
Substituted phthalic anhydride	None	Irritant, Allergen, Respiratory
Bisphenol-F Epichlorohydrin resin	None	Allergen, Irritant
Butadiene, acrylonitrile polymer, carboxy-terminated, polymer with bisphenol A and epichlorohydrin	None	Irritant, Allergen
Carbon black	Oral LD50 (Rat) = > 8,000 mg/kg	Respiratory, Some evidence of carcinogenicity
4,4'-carbonyldipthalic acid compd. with 2-methyl-1H-imidazole (1:2)	None	No Records

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Silica, vitreous	No	No	No
Hexahydromethylphthalic anhydride	No	No	No
Silicon dioxide	No	No	No
2,2'-((3,5',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
7-Oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate	No	No	No
Substituted phthalic anhydride	No	No	No
Bisphenol-F Epichlorohydrin resin	No	No	No
Butadiene, acrylonitrile polymer, carboxy-terminated, polymer with bisphenol A and epichlorohydrin	No	No	No
Carbon black	No	Group 2B	No
4,4'-carbonyldipthalic acid compd. with 2-methyl-1H-imidazole (1:2)	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

**Exceptions:** Up to 6 oz. max per inner/primary package when shipped as originally packaged only

### Water Transportation (IMO/IMDG)

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

**Exceptions:** Up to 6 oz. max per inner/primary package when shipped as originally packaged only

## 15. REGULATORY INFORMATION

### United States Regulatory Information

**TSCA 8 (b) Inventory Status:** This product contains one or more components that are exempt from listing on the U.S. Toxic Substances Control Act (TSCA) inventory because a Low Volume Exemption (LVE) has been granted in accordance with 40 CFR 723.50. Quantities may be limited.

**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:** None above reporting de minimis.

**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:** 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.

## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 3,8,11,16

**Prepared by:** Product Safety and Regulatory Affairs

**Issue date:** 08/05/2019

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