



Revision Number: 004.0

Issue date: 02/01/2024

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** LOCTITE ECCOBOND FP4450HF  
known as HYSOL FP4450HF 10CC  
FINE FILLER

**Product type/use:** Epoxy adhesive

**Restriction of Use:** None identified

**Company address:**  
Henkel Corporation  
One Henkel Way  
Rocky Hill, Connecticut 06067

**IDH number:** 397701

**Item number:** FP0089-V24

**Region:** United States

**Contact information:**  
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 DAMAGE.  
MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.  
MAY CAUSE RESPIRATORY IRRITATION.  
SUSPECTED OF CAUSING GENETIC DEFECTS.  
MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

**PICTOGRAM(S)****Precautionary Statements**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe 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, clothing, eye 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 exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing.

IDH number: 397701

Product name: LOCTITE ECCOBOND FP4450HF known as HYSOL FP4450HF 10CC FINE FILLER

**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
Si-oxide amorphous (fumed)	7631-86-9	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 - Nano	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

<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Skin contact:</b>	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.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Symptoms:</b>	See Section 11.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
<b>Unusual fire or explosion hazards:</b>	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	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.

<b>Environmental precautions:</b>	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	3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Inhalable particles.	20 MPPCF TWA 0.8 mg/m3 TWA 15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction. 15 MPPCF TWA Respirable fraction. 50 MPPCF TWA Total dust.	None	None
hexahydromethylphthalic anhydride	None	None	None	None
Si-oxide amorphous (fumed)	3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Inhalable particles. 6 mg/m3 TWA	15 MPPCF TWA Respirable fraction. 50 MPPCF TWA Total dust. 15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction. 20 MPPCF TWA 0.8 mg/m3 TWA	None	3 mg/m3 TWA Respirable fraction.
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) 0.00007 ppm TWA 0.7 mg/100 cm2 TLV-SL 0.0003 ppm STEL (Respiratory sensitization) (Dermal 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 - Nano	3 mg/m3 TWA Inhalable fraction.	3.5 mg/m3 PEL 5 mg/m3 TWA Respirable fraction. 50 MPPCF TWA Total dust. 15 MPPCF TWA Respirable fraction. 15 mg/m3 TWA Total dust.	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.

### 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

Physical state:	Liquid
Color:	Black
Odor:	Mild
Odor threshold:	Not available.
pH:	Not applicable, Product is non-soluble (in water).
Vapor pressure:	Not available.
Boiling point/range:	Not available.
Melting point/ range:	Not applicable, Product is a liquid
Specific gravity:	1.7
Vapor density:	Not available.
Flash point:	> 93 °C (> 199.4 °F)
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Insoluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 0.1 %
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. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Hydrocarbons. Irritating organic vapours.
Incompatible materials:	Strong acids and oxidizing agents. Water, amines, alkalis and alcohols.
Reactivity:	Not available.
Conditions to avoid:	High temperatures. Store away from incompatible materials. Heat, flames, sparks and other sources of ignition. Avoid contact with water.

## 11. TOXICOLOGICAL INFORMATION

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

## Potential Health Effects/Symptoms

<b>Inhalation:</b>	Prolonged or excessive inhalation 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 damage. 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
Si-oxide amorphous (fumed)	Oral LD50 (Rat) = > 22,500 mg/kg Oral LD50 (Mouse) = > 15,000 mg/kg Inhalation LC50 (Rat, 4 h) = > 2.08 mg/l Inhalation LC50 (Rat, 4 h) = > 0.69 mg/l	Nuisance dust
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 - Nano	Oral LD50 (Rat) = > 8,000 mg/kg	No Data
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
Si-oxide amorphous (fumed)	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 - Nano	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.

## 14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any packaging.

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

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	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:** All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.  
This product contains one or more components with a Low Volume Exemption (LVE) 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.  
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/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.

## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2,11,16

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

**Issue date:** 02/01/2024

**DISCLAIMER:** The data contained herein are furnished for information only and are believed to be reliable. However, Henkel Corporation and its affiliates ("Henkel") does not assume responsibility for any results obtained by persons over whose methods Henkel has no control. It is the user's responsibility to determine the suitability of Henkel's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Henkel's products. In light of the foregoing, Henkel specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of Henkel's products. Henkel further disclaims any liability for consequential or incidental damages of any kind, including lost profits.

This Safety Data Sheet has been generated based on OSHA Hazard Communication Standard (29 CFR 1910.1200) and provides information in accordance with U.S. federal law only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance.