



Revision Number: 003.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE ECCOBOND FP4451TD</b> known as HYSOL 30cc DAM FP4451TD <b>-40CD</b>	<b>IDH number:</b>	537014
<b>Product type:</b>	Encapsulant	<b>Item number:</b>	FP0105-V25
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Corporation	Telephone: +1 (860) 571-5100		
One Henkel Way	MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711		
Rocky Hill, Connecticut 06067	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.  
MAY CAUSE CANCER.  
CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

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

**PICTOGRAM(S)**



**Precautionary Statements**

<b>Prevention:</b>	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. Do not eat, drink or smoke when using this product. 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.
<b>Response:</b>	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. If eye irritation persists: Get medical attention. Take off contaminated clothing.
<b>Storage:</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal:</b>	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, amorphous, naturally	60676-86-0	40 - 50
Silica, vitreous	60676-86-0	10 - 20
Hexahydromethylphthalic anhydride	25550-51-0	10 - 20
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	1 - 5
2,2'-((3,5',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	85954-11-6	1 - 5
Bisphenol-F Epichlorohydrin resin	9003-36-5	1 - 5
Silica, amorphous, treated	68909-20-6	1 - 5
Quartz (SiO <sub>2</sub> ), <1% respirable	14808-60-7	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
Cristobalite	14464-46-1	0.1 - 1
Carbon black	1333-86-4	0.1 - 1
4,4'-carbonyldiphthalic 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. Get medical attention. Wash clothing before reuse. Destroy contaminated leather apparel.
<b>Eye contact:</b>	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.

**Hazardous combustion products:** Oxides of carbon. Oxides of nitrogen. Irritating organic vapours.

## 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 spilled material and place in a closed container 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. Keep container closed. 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, amorphous, naturally	None	20 MPPCF TWA 0.8 mg/m <sup>3</sup> TWA	None	None
Silica, vitreous	None	20 MPPCF TWA 0.8 mg/m <sup>3</sup> TWA	None	None
Hexahydromethylphthalic anhydride	None	None	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
2,2'-((3,5',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxyethylene))-bis-oxirane	None	None	None	None
Bisphenol-F Epichlorohydrin resin	None	None	None	None
Silica, amorphous, treated	10 mg/m <sup>3</sup> TWA Inhalable dust.	6 mg/m <sup>3</sup> TWA	None	None
Quartz (SiO <sub>2</sub> ), <1% respirable	0.025 mg/m <sup>3</sup> TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m <sup>3</sup> TWA Respirable. 0.05 mg/m <sup>3</sup> TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m <sup>3</sup> OSHA_ACT (Respirable dust.) 0.05 mg/m <sup>3</sup> PEL Respirable dust.	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	None	None	None	None
Cristobalite	0.025 mg/m <sup>3</sup> TWA Respirable fraction.	1.2 MPPCF TWA Respirable. 0.05 mg/m <sup>3</sup> TWA Respirable. 0.05 mg/m <sup>3</sup> TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m <sup>3</sup> OSHA_ACT (Respirable dust.) 0.05 mg/m <sup>3</sup> PEL Respirable dust.	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.

**Respiratory protection:**

Use a NIOSH approved respirator if ventilation is inadequate.

**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

<b>Physical state:</b>	Viscous, Liquid
<b>Color:</b>	Black
<b>Odor:</b>	Aromatic
<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>	1.76
<b>Vapor density:</b>	Not available.
<b>Flash point:</b>	> 149 °C (> 300.2 °F) Open cup
<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 %
<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>	Polymerization may occur at elevated temperature or in the presence of incompatible materials.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of nitrogen. Irritating organic vapours.
<b>Incompatible materials:</b>	Strong oxidizing agents.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Excessive heat. Store away from incompatible materials. Heat, flames, sparks and other sources of ignition.

## 11. TOXICOLOGICAL INFORMATION

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

<b>Inhalation:</b>	May cause respiratory tract irritation. May cause allergic respiratory reaction. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed (up to several hours after exposure). 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.
<b>Skin contact:</b>	Causes skin irritation. May cause allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye irritation.
<b>Ingestion:</b>	May cause irritation to the gastrointestinal tract, mouth and mucous membranes.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Silica, amorphous, naturally	None	Nuisance dust
Silica, vitreous	None	Nuisance dust
Hexahydromethylphthalic anhydride	None	Allergen, Respiratory, Irritant
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant
2,2'-((3,5',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	None	Irritant, Allergen, Mutagen
Bisphenol-F Epichlorohydrin resin	None	Allergen, Irritant
Silica, amorphous, treated	None	No Target Organs
Quartz (SiO <sub>2</sub> ), <1% respirable	None	Immune system, Lung, Some evidence of carcinogenicity
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
Cristobalite	None	Carcinogen, Immune system, Kidney, Lung
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, amorphous, naturally	No	No	No
Silica, vitreous	No	No	No
Hexahydromethylphthalic anhydride	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
2,2'-((3,5',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	No	No	No
Bisphenol-F Epichlorohydrin resin	No	No	No
Silica, amorphous, treated	No	No	No
Quartz (SiO <sub>2</sub> ), <1% respirable	Known To Be Human Carcinogen.	Group 1	Yes
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
Cristobalite	Known To Be Human Carcinogen.	Group 1	Yes
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

### 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:** None above reporting de minimis.

**California Proposition 65:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. This product contains a chemical known in the State of California to cause cancer.

### 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: 2, 3

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

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