

# Safety Data Sheet



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Issue date: 06/19/2025

## 1. IDENTIFICATION

<b>Product name:</b>	<b>LOCTITE ECCOBOND FP4451TD</b> <b>known as HYSOL 10cc DAM FP4451TD</b> <b>-40CD</b>	<b>IDH number:</b>	537013
<b>Product type/</b>	Encapsulant	<b>Item number:</b>	FP0105-V24
<b>Recommended use:</b>		<b>Region:</b>	United States
<b>Restriction of Use:</b>	None identified	<b>Contact information:</b>	
<b>Company address:</b>	Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067		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 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. 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.

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**DANGER:**

- H315 - CAUSES SKIN IRRITATION.
- H317 - MAY CAUSE AN ALLERGIC SKIN REACTION.
- H318 - CAUSES SERIOUS EYE DAMAGE.
- H334 - MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.
- H335 - MAY CAUSE RESPIRATORY IRRITATION.
- H341 - SUSPECTED OF CAUSING GENETIC DEFECTS.
- H350 - MAY CAUSE CANCER.
- H372 - CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.
- H373 - 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
CARCINOGENICITY	1A
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

### PICTOGRAM(S)



#### Precautionary Statements

<b>Prevention:</b>	<p>P201 - Obtain special instructions before use.</p> <p>P202 - Do not handle until all safety precautions have been read and understood.</p> <p>P260 - Do not breathe vapors, mist, or spray.</p> <p>P264 - Wash affected area thoroughly after handling.</p> <p>P270 - Do not eat, drink or smoke when using this product.</p> <p>P271 - Use only outdoors or in a well-ventilated area.</p> <p>P272 - Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 - Wear protective gloves, clothing, eye and face protection.</p> <p>P284 - [In case of inadequate ventilation] wear respiratory protection.</p>
<b>Response:</b>	<p>P302+P352 - IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340+P312 - 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.</p> <p>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313 - IF exposed or concerned: Get medical attention.</p> <p>P333+P313 - If skin irritation or rash occurs: Get medical attention.</p> <p>P342+P311 - If experiencing respiratory symptoms: Call a poison center or physician.</p> <p>P362+P364 - Take off contaminated clothing and wash it before reuse.</p>
<b>Storage:</b>	<p>P403+P233 - Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 - Store locked up.</p>
<b>Disposal:</b>	<p>P501 - Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.</p>

**Other hazards** Not available.

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	Weight %*
Silica, amorphous, naturally	60676-86-0	30 - 60
Silica, vitreous	60676-86-0	10 - 30
hexahydromethylphthalic anhydride	25550-51-0	10 - 30
Quartz (SiO <sub>2</sub> )	14808-60-7	1 - 5
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	1 - 5
2,2'-((3,3', 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
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, (RCS ≥1% - <10%)	14464-46-1	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

### First Aid Measures by likely routes of exposure

<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.
<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 unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Most important symptoms and effects (acute and delayed):</b>	The most important known symptoms and effects, both acute and delayed, are described in Section 11: Toxicological Information.
<b>Indication of any immediate medical attention / special treatment needed:</b>	Not available.

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Improper extinguishing agents:</b>	Not available.
<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. 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.

<b>Environmental precautions:</b>	Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of according to Federal, State and local governmental regulations. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors or mists of this product. Use only with adequate ventilation. Do not take internally. For industrial use only.
<b>Storage:</b>	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	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
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
Quartz (SiO <sub>2</sub> )	0.025 mg/m3 TWA Respirable fraction.	0.05 mg/m3 TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m3 OSHA_ACT (Respirable dust.) 0.05 mg/m3 PEL Respirable dust. 2.4 MPPCF TWA Respirable 0.1 mg/m3 TWA Respirable	None	None
Silica, amorphous, treated	3 mg/m3 TWA Respirable fraction. 10 mg/m3 TWA Inhalable dust.	6 mg/m3 TWA	None	None
Substituted phthalic anhydride	(SKIN) 0.00007 ppm TWA 0.7 mg/100 cm <sup>2</sup> TLV-SL 0.0003 ppm STEL (Respiratory sensitization) (Dermal sensitization)	None	None	None
Cristobalite, (RCS >=1% - <10%)	0.025 mg/m3 TWA Respirable fraction.	1.2 MPPCF TWA Respirable 0.05 mg/m3 TWA Respirable 0.05 mg/m3 TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m3 OSHA_ACT (Respirable dust.) 0.05 mg/m3 PEL Respirable dust.	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

<b>Engineering controls:</b>	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
<b>Respiratory protection:</b>	If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.
<b>Eye/face protection:</b>	Wear chemical goggles; face shield (if splashing is possible). 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>	Wear impervious gloves for prolonged 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>	Product reacts with water., Not applicable
<b>Vapor pressure:</b>	< 1 mm hg (20 °C (68°F))
<b>Boiling point/range:</b>	Not applicable, Polymerizes before boiling point is reached.
<b>Melting point/ range:</b>	Not applicable, Product is a liquid
<b>Density/Relative density:</b>	1.76
<b>Relative vapor density:</b>	> 6 20 °C
<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:</b>	Not miscible or difficult to mix Water
<b>Solubility:</b>	Partially miscible ketones
<b>Partition coefficient n-octanol/water (logarithmic value):</b>	Not available.
<b>VOC content:</b>	0 %
<b>Dynamic viscosity:</b>	Not available.
<b>Kinematic viscosity:</b>	99,999 mm <sup>2</sup> /s
<b>Particle characteristics:</b>	Not applicable, Product is a liquid
<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>Likely 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 damage.
<b>Ingestion:</b>	May cause irritation to the gastrointestinal tract, mouth and mucous membranes.

Hazardous Component(s)	LD50s and LC50s
Silica, amorphous, naturally	None
Silica, vitreous	None
hexahydromethylphthalic anhydride	None
Quartz (SiO <sub>2</sub> )	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None
2,2'-((3,3', 5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	None
Bisphenol-F Epichlorohydrin resin	None
7-Oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate	None
Substituted phthalic anhydride	None
Cristobalite, (RCS >=1% - <10%)	None
Carbon black - Nano	Oral LD50 (Rat) = > 8,000 mg/kg
4,4'-carbonyldipthalic acid compd. with 2-methyl-1H-imidazole (1:2)	None

Hazardous Component(s)	Immediate Health Effects	Delayed Health Effects	Chronic Health Effects
Silica, amorphous, naturally	Nuisance dust		
Silica, vitreous	Nuisance dust		
hexahydromethylphthalic anhydride	Irritant	Allergen	Respiratory
Quartz (SiO <sub>2</sub> )			Immune system Lung Some evidence of carcinogenicity
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Irritant	Allergen	
2,2'-((3,3', 5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	Irritant	Allergen	Mutagen
Bisphenol-F Epichlorohydrin resin	Irritant	Allergen	
7-Oxabicyclo[4.1.0]hept-3-ylmethyl 7-oxabicyclo[4.1.0]heptane-3-carboxylate	Irritant	Allergen	
Substituted phthalic anhydride	Irritant	Allergen	Respiratory
Cristobalite, (RCS >=1% - <10%)			Carcinogen Immune system Kidney Lung
Carbon black - Nano			
4,4'-carbonyldipthalic acid compd. with 2-methyl-1H-imidazole (1:2)			

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
Quartz (SiO <sub>2</sub> )	Known To Be Human Carcinogen.	Group 1	Yes
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
2,2'-((3,3', 5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	No	No	No
Bisphenol-F Epichlorohydrin 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
Cristobalite, (RCS >=1% - <10%)	Known To Be Human Carcinogen.	Group 1	Yes

Carbon black - Nano	Known To Be Human Carcinogen.	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)

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None

### Water Transportation (IMO/IMDG)

<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None

## 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.

#### CERCLA/SARA Section 311/312:

Please refer to the GHS classification in Section 2

#### 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: New Safety Data Sheet format.

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

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