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Safety Data Sheet

Revision Number: 009.0

Issue date: 09/11/2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE 3612 known as 3612 Chipbonder(R) Adhesive**
Product type/use: One-part epoxy
Restriction of Use: None identified
Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

IDH number: 237074
Item number: 26654
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

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
WARNING:	CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. SUSPECTED OF CAUSING GENETIC DEFECTS. SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
EYE IRRITATION	2A
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	2
REPRODUCTIVE TOXICITY	2

PICTOGRAM(S)



Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye 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 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.

Storage: 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*

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Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
Talc	14807-96-6	10 - 30
4,4'-(1-Methylethylidene) bisphenol reaction products with (Chloromethyl) oxirane, 2-methyl-1H-imidazole, (phenoxymethyl) oxirane, p	134091-76-2	10 - 30
Epoxy resin	Proprietary	1 - 5
2,3-Epoxypropyl neodecanoate	26761-45-5	1 - 5
Silica, amorphous, fumed, cryst.-free	112945-52-5	0.1 - 1
Titanium dioxide	13463-67-7	0.1 - 1
4,4'-Isopropylidenediphenol	80-05-7	0.1 - 1
Epoxy resin	Proprietary	0.1 - 1
Quartz (SiO2), <1% respirable	14808-60-7	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: Uncontrolled polymerization may occur at high temperatures resulting in explosions or rupture of storage containers.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. Aldehydes. Phenolics. 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: Ensure adequate ventilation. Scrape up spilled material and place in a closed container for disposal. Clean residue with soap and water. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

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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
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Talc	2 mg/m3 TWA Respirable fraction.	0.1 mg/m3 TWA Respirable. 20 MPPCF TWA 2.4 MPPCF TWA Respirable.	None	50 ppm
4,4'-(1-Methylethylidene) bisphenol reaction products with (Chloromethyl) oxirane, 2-methyl-1H-imidazole, (phenoxymethyl) oxirane, p	None	None	None	None
Epoxy resin	None	None	None	None
2,3-Epoxypropyl neodecanoate	None	None	None	None
Silica, amorphous, fumed, cryst.-free	3 mg/m3 TWA Respirable particles. 10 mg/m3 TWA Inhalable particles.	20 MPPCF TWA 0.8 mg/m3 TWA 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust. 15 MPPCF TWA Respirable fraction.	None	None
Titanium dioxide	0.2 mg/m3 TWA Respirable nanoscale particles 2.5 mg/m3 TWA Respirable finescale particles	15 mg/m3 PEL Total dust. 15 MPPCF TWA Respirable fraction. 15 mg/m3 TWA Total dust. 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
4,4'-Isopropylidenediphenol	None	None	None	None
Epoxy resin	None	None	None	None
Quartz (SiO2), <1% respirable	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

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.

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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:	Paste
Color:	Yellow
Odor:	Mild
Odor threshold:	Not available.
pH:	Not applicable, Product is non-soluble (in water).
Vapor pressure:	< 1.0 mm hg (20 °C (68°F))
Boiling point/range:	Not applicable, Polymerizes before boiling point is reached.
Melting point/ range:	Not applicable, Product is a liquid
Specific gravity:	1.22
Vapor density:	> 1 20 °C
Flash point:	> 93 °C (> 199.4 °F) Tagliabue closed cup
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not determined
Flammability:	The product is not flammable.
Evaporation rate:	Not determined
Solubility in water:	Insoluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	Not available.
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
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. Oxides of nitrogen. Aldehydes. Phenolics. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents. Strong acids and strong bases. Amines.
Reactivity:	Not available.
Conditions to avoid:	Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

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

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Potential Health Effects/Symptoms

Inhalation: May cause 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.
Eye contact: Causes serious eye irritation. Redness. Tearing.
Ingestion: May cause gastrointestinal tract irritation if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant
Talc	None	Irritant, Lung, Some evidence of carcinogenicity
4,4'-(1-Methylethylidene) bisphenol reaction products with (Chloromethyl) oxirane, 2-methyl-1H-imidazole, (phenoxymethyl) oxirane, p	None	No Records
Epoxy resin	None	Allergen, Irritant
2,3-Epoxypropyl neodecanoate	Inhalation LC50 (Rat, 4 h) = > 240 mg/m3	Irritant, Allergen
Silica, amorphous, fumed, cryst.-free	None	No Data
Titanium dioxide	Inhalation LC50 (Rat, 4 h) = > 6.82 mg/l Inhalation LC50 (Rat, 4 h) = > 2.28 mg/l Inhalation LC50 (Rat, 4 h) = > 3.56 mg/l	Irritant, Respiratory, Some evidence of carcinogenicity
4,4'-Isopropylidenediphenol	Oral LD50 (Rat) = 4,100 mg/kg Oral LD50 (Rat) = 3,300 mg/kg	Allergen, Blood, Irritant, Kidney, Reproductive, Spleen
Epoxy resin	None	No Data
Quartz (SiO2), <1% respirable	None	Immune system, Lung, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Talc	No	No	No
4,4'-(1-Methylethylidene) bisphenol reaction products with (Chloromethyl) oxirane, 2-methyl-1H-imidazole, (phenoxymethyl) oxirane, p	No	No	No
Epoxy resin	No	No	No
2,3-Epoxypropyl neodecanoate	No	No	No
Silica, amorphous, fumed, cryst.-free	No	No	No
Titanium dioxide	No	Group 2B	No
4,4'-Isopropylidenediphenol	No	No	No
Epoxy resin	No	No	No
Quartz (SiO2), <1% respirable	Known To Be Human Carcinogen.	Group 1	Yes

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)

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Proper shipping name:	Not regulated (Up to 300 ml max per inner/primary package when shipped as originally packaged only)
Hazard class or division:	None
Identification number:	None
Packing group:	None

International Air Transportation (ICAO/IATA)

Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol-A Epichlorhydrin resin) (Up to 300 ml max per inner/primary package when shipped as originally packaged only)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III

Water Transportation (IMO/IMDG)

Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol-A Epichlorhydrin resin) (Up to 300 ml max per inner/primary package when shipped as originally packaged only)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	Bisphenol-A Epichlorhydrin resin

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.
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:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2,3,8,9,11,13,16

Prepared by: Product Safety and Regulatory Affairs

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