



Revision Number: 004.1

Issue date: 05/24/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: CHIPBONDER 3616 158337 BULK
Product type: One-part epoxy
Company address: Henkel Corporation
 15350 Barranca Parkway
 Irvine, CA 92618
IDH number: 973303
Item number: CB8005
Region: United States
Contact information:
 Telephone: 1.888.9.HENKEL (1.888.943.6535)
 Emergency telephone: 860.571.5100
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state:	Liquid	HEALTH:	*2
Color:	Red	FLAMMABILITY:	1
Odor:	mild	PHYSICAL HAZARD:	1
		Personal Protection:	See MSDS Section 8

WARNING: MAY CAUSE ALLERGIC SKIN REACTION.
 MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
 MAY BE HARMFUL IF SWALLOWED OR INHALED.

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

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation. May cause irritation to nose and throat. Coughing. Sneezing.
Skin contact: May cause allergic skin reaction. May cause severe skin irritation. Repeated or prolonged contact can result in drying of skin. Contact at elevated temperatures may cause thermal burns. Redness.
Eye contact: May cause irritation. Blurred vision. Burning sensation. Swelling. Redness.
Ingestion: May be harmful if swallowed.

Existing conditions aggravated by exposure: Pre-existing skin, eye and respiratory allergies. Skin disorders. Dermatitis. Eczema. Respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
Limestone	1317-65-3	10 - 30
Amine adduct	Proprietary	10 - 30
2,3-Epoxypropyl neodecanoate	26761-45-5	5 - 10
Silicon dioxide	7631-86-9	5 - 10
Treated fumed silica	67762-90-7	1 - 5
Phenol polymer with formaldehyde, glycidyl ether	28064-14-4	1 - 5
Titanium dioxide	13463-67-7	0.1 - 1

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
Skin contact:	Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). If symptoms develop and persist, get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with plenty of water 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. Give a conscious person several glasses of water. If symptoms develop and persist, get medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	> 93 °C (> 199.4 °F) Tagliabue closed cup
Autoignition temperature:	Not determined
Flammable/Explosive limits - lower:	Not determined
Flammable/Explosive limits - upper:	Not determined
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	In case of fire, keep containers cool with water spray. Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards:	None
Hazardous combustion products:	Oxides of carbon. Oxides of nitrogen. Calcium oxide. Aldehydes. Phenolics. Hydrocarbons.

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. Wear suitable protective clothing, gloves and eye/face protection. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling:	Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Do not breathe gas/fumes/vapor/spray. Keep container closed. Wash thoroughly after handling.
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 components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Limestone	10 mg/m3 TWA Total dust.	5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Amine adduct	None	None	None	None
2,3-Epoxypropyl neodecanoate	None	None	None	None
Silicon dioxide	6 mg/m3 TWA	20 MPPCF TWA 0.8 mg/m3 TWA	None	3 mg/m3 TWA Respirable fraction.
Treated fumed silica	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
Phenol polymer with formaldehyde, glycidyl ether	None	None	None	None
Titanium dioxide	10 mg/m3 TWA	15 mg/m3 TWA Total dust.	None	None

Engineering controls:

Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational exposure limits.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Safety goggles or safety glasses with side shields.

Skin protection:

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Red
Odor:	mild
Odor threshold:	Not available
pH:	Not determined
Vapor pressure:	< 1.0 mm hg (20 °C (68°F))
Boiling point/range:	Not available
Melting point/ range:	Not determined
Specific gravity:	Not available
Vapor density:	Not determined
Flash point:	> 93 °C (> 199.4 °F) Tagliabue closed cup
Flammable/Explosive limits - lower:	Not determined
Flammable/Explosive limits - upper:	Not determined
Autoignition temperature:	Not determined
Evaporation rate:	Not determined
Solubility in water:	Insoluble
Partition coefficient (n-octanol/water):	Not available
VOC content:	Not available

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Calcium oxide. Aldehydes. Phenolics. Hydrocarbons.
Incompatible materials:	Can react vigorously with strong oxidizing agents, strong Lewis or mineral acids, and strong mineral and organic bases, especially primary and secondary aliphatic amines. Mercaptans. Fluorine. Aluminum. Ammonium salts. Alkalis. Water.
Conditions to avoid:	Store away from incompatible materials. Heat, flames, sparks and other sources of ignition. Avoid contact with acids and oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Limestone	No	No	No
Amine adduct	No	No	No
2,3-Epoxypropyl neodecanoate	No	No	No
Silicon dioxide	No	No	No
Treated fumed silica	No	No	No
Phenol polymer with formaldehyde, glycidyl ether	No	No	No
Titanium dioxide	No	Group 2B	No

Hazardous components	Health Effects/Target Organs
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Allergen, Irritant
Limestone	Nuisance dust
Amine adduct	No Records
2,3-Epoxypropyl neodecanoate	Irritant, Allergen
Silicon dioxide	Nuisance dust
Treated fumed silica	Irritant
Phenol polymer with formaldehyde, glycidyl ether	Irritant, Allergen
Titanium dioxide	Irritant, Respiratory, Some evidence of carcinogenicity

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 shipping classifications in this sections are for non-bulk packaging only (unless otherwise specified). Shipping classification may be different for bulk packaging.

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

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 Epichlorhydrine 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 Epichlorhydrine 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 Epichlorhydrine resin

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 minimus

CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: None above reporting de minimus

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.

WHMIS hazard class: D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

Prepared by: Dan Shaw, Sr. Regulatory Affairs Specialist For Safety and Regulatory information contact: Regulatory Affairs Rocky Hill, CT 860-571-5204

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