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Safety Data Sheet

Revision Number: 008.0

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **LOCTITE ECCOBOND BF 4 known as Ablebond BF-4 (16g),**

IDH number: 1200432

Product type: Epoxy adhesive

Restriction of Use: None identified

Region: United States

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

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. MAY CAUSE RESPIRATORY IRRITATION. SUSPECTED OF CAUSING GENETIC DEFECTS.

HAZARD CLASS	HAZARD CATEGORY
SKIN IRRITATION	2
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

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. 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.

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 exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing.

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).

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See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Silica, vitreous	60676-86-0	50 - 60
Bisphenol-F Epichlorhydrin resin	9003-36-5	20 - 30
Triglycidyl-p-aminophenol	5026-74-4	10 - 20
4,4'-(1-Methylethylidene) bisphenol reaction products with (Chloromethyl) oxirane, 2-methyl-1H-imidazole, (phenoxymethyl) oxirane, p	134091-76-2	1 - 5
Formaldehyde, polymer with epichlorohydrin and o-cresol	29690-82-2	1 - 5
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	0.1 - 1
Carbon black	1333-86-4	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: Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

Hazardous combustion products: Oxides of carbon. Oxides of nitrogen. 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.

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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	None	20 MPPCF TWA 0.8 mg/m3 TWA	None	None
Bisphenol-F Epichlorhydrin resin	None	None	None	None
Triglycidyl-p-aminophenol	None	None	None	None
4,4'-(1-Methylethylidene) bisphenol reaction products with (Chloromethyl) oxirane, 2-methyl-1H-imidazole, (phenoxymethyl) oxirane, p	None	None	None	None
Formaldehyde, polymer with epichlorohydrin and o-cresol	None	None	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Carbon black	3 mg/m3 TWA Inhalable fraction.	3.5 mg/m3 PEL	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: Slight
Odor threshold: Not available.
pH: Not available.
Vapor pressure: Not applicable
Boiling point/range: Not applicable
Melting point/ range: Not available.
Specific gravity: 1.6
Vapor density: Not available.

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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:	< 10 g/l
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. Oxides of nitrogen. Irritating organic vapours.
Incompatible materials:	Strong oxidizing agents. Strong acids and strong bases.
Reactivity:	Not available.
Conditions to avoid:	High temperatures. 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. Coughing.
Skin contact: May cause 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
Silica, vitreous	None	Nuisance dust
Bisphenol-F Epichlorhydrin resin	None	Allergen, Irritant
Triglycidyl-p-aminophenol	None	Allergen, Irritant, Mutagen
4,4'-(1-Methylethylidene) bisphenol reaction products with (Chloromethyl) oxirane, 2-methyl-1H-imidazole, (phenoxymethyl) oxirane, p	None	No Records
Formaldehyde, polymer with epichlorohydrin and o-cresol	None	Irritant, Allergen
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	Allergen, Irritant
Carbon black	Oral LD50 (Rat) = > 8,000 mg/kg	Respiratory, Some evidence of carcinogenicity

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Silica, vitreous	No	No	No
Bisphenol-F Epichlorhydrin resin	No	No	No
Triglycidyl-p-aminophenol	No	No	No
4,4'-(1-Methylethylidene) bisphenol reaction products with (Chloromethyl) oxirane, 2-methyl-1H-imidazole, (phenoxymethyl) oxirane, p	No	No	No
Formaldehyde, polymer with epichlorohydrin and o-cresol	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Carbon black	No	Group 2B	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

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International Air Transportation (ICAO/IATA)

Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin, Triglycidyl-p-aminophenol)
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. (Epoxy resin, Triglycidyl-p-aminophenol)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	Epoxy resin, Triglycidyl-p-aminophenol

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:	Triglycidyl-p-aminophenol (CAS# 5026-74-4).
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: 2,16

Prepared by: Product Safety and Regulatory Affairs

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