

Retro Fit Epoxy Part B

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SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name (as labeled):	Retro Fit Epoxy Part B
Synonyms:	N/A
CAS No:	Mixture
1.2 Product Use:	Epoxy bonding gel
1.3 Company Name:	BoMetals
Company Address:	141 Hammond St.
Company Address Cont:	Carrollton, GA 30117
Business Phone:	(770) 832-2000
Website:	www.bometals.com
1.4 Emergency Telephone Number:	Chemtrec: (800) 424-9300
Date of Current Revision:	April 30, 2015
Date of Last Revision:	February 26, 2007

SECTION 2 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: This product is a gray gelled liquid with a characteristic odor.

Health Hazards: May cause skin, eye and respiratory system irritation. Inhalation may cause drowsiness or dizziness. Contact with skin may cause allergic reaction.

Flammability Hazards: This product is a non-flammable liquid.

Reactivity Hazards: None.

Environmental Hazards: The environmental effects of this product have not been investigated, however release may cause long term adverse environmental effects.

US DOT Symbols:



EU and GHS Symbols:

Signal Word:

Danger

2.1 EU Labeling and Classification:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:

Index Number:

203-865-4 is listed in Annex I 612-058-00-X

205-411-0 is listed in Annex I 612-105-00-4

203-867-5 is listed in Annex I 603-194-00-0

202-679-0 is listed in Annex I 304-090-00-8

284-325-5 is listed in Annex I 601-053-00-8

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202-013-9 is listed in Annex I 603-069-00-0

275-162-0 is not listed in Annex I

215-279-6 is not listed in Annex I

Substances not listed either individually or in group entries must be self classified.

Components Contributing to Classification:

All Ingredients

2.2 Label Elements:

GHS Hazard Classifications:

Skin Sensitization Category 1

Skin Corrosive Category 1B

Acute Toxicity Category 4 (Oral)

Acute Toxicity Category 4 (Dermal)

Reproductive Toxicity Category 1B

Chronic Aquatic Toxicity Category 2

Hazard Statements:

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction

H302 Harmful if swallowed

H312 Harmful in contact with skin

H361 Suspected of damaging fertility or the unborn child

H411 Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dusts or mists.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/eye protection/face protection.

P264 Wash thoroughly after handling.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

H270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

Response Statements:

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P302+P352 IF ON SKIN: Wash with plenty of water.

P321 Specific treatment (see supplemental first aid instructions on this label).

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Storage Statements:
Disposal Statements:

P332+P313 If skin irritation occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330 Rinse mouth.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P310 Immediately call a POISON CENTER/doctor if you feel unwell.
P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Health Hazards or Risks From Exposure:

Symptoms of Overexposure by Route of Exposure:

The most significant routes of overexposure for this product are by contact with skin or eyes. The symptoms of overexposure are described in the following paragraphs.

Acute:

Inhalation: May cause respiratory tract irritation. May cause headaches, drowsiness, or dizziness.

Skin Contact: A single prolonged exposure may result in the absorption of harmful amounts. May cause burns or redness. Contact with skin may cause allergic reaction.

Eye Contact: Corrosive material may cause irritation with possible burns and tissue damage.

Ingestion: Harmful if swallowed. May cause nausea and diarrhea.

Chronic: Repeated exposure may cause skin dryness or cracking.

Target Organs:

Acute: Skin, Eyes

Chronic: Skin.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	WT%	CAS No.	EINECS No.	Hazard Classification
Calcium Carbonate	50-60%	1317-65-3	215-279-6	Skin Irrit. 3, Eye Irrit. 2B
4-Nonylphenol	10-15%	84852-15-3	284-325-5	Acute Tox. 4 (oral), Skin Corr, 1B, Reproductive Tox.2, Aquatic Acute1, Aquatic Chron.1
4-tert-butylphenol	10-15%	98-54-4	202-679-0	Skin Irrit. 2, Eye Dam. 1, Repr. 2
2,2'-iminodiethylamine diethylenetriamine	3-5%	111-40-0	203-865-4	Acute Tox. 4 (Oral), Acute Tox. 4 (Dermal), Skin Corr. 1B, Skin Sens. 1
2-piperazin-1-ylethylamine	3-5%	140-31-8	205-411-0	Acute Tox. 4 (Oral), Acute Tox. 4 (Dermal), Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3
2-(2-aminoethylamino)ethanol (AEEA)	3-5%	111-41-1	203-867-5	Skin Corr. 1B, Skin Sens. 1, Repr. 1B
Bis[(dimethylamino)methyl]phenol	1-3%	71074-89-0	275-162-0	Skin Corr, 1B
2,4,6-tris(dimethylaminomethyl)phenol	1-3%	90-72-2	202-013-9	Acute Tox. 4(Oral), Skin Irrit.2, Eye Irrit.2

Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).

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Note: All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-2010 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard JIS Z 7250:2000

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures:

- Eye Contact:** If product enters the eyes, flush with plenty of water or eye wash solution for several minutes. Remove contacts if present and easy to do. Seek medical attention if irritation persists.
- Skin Contact:** Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.
- Inhalation:** If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.
- Ingestion:** If product is swallowed, call physician or poison center immediately. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

**Medical Conditions
Generally Aggravated
By Exposure:**

Pre-existing skin, respiratory system or eye problems may be aggravated by prolonged contact.

4.2 Symptoms and Effects Both Acute and Delayed: Exposure to skin and eyes may cause burns or redness.

4.3 Recommendations to Physicians: Treat symptoms and eliminate overexposure.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Fire Extinguishing Materials:

Use the following fire extinguishing materials:

- Water Spray:** Yes
- Foam:** Yes
- Halon:** Yes
- Carbon Dioxide:** Yes
- Dry Chemical:** Yes
- Other:** Any "C" Class

5.2 Unusual Fire and Explosion Hazards:

Irritating and toxic fumes may be produced at high temperatures. Use of water may result if the formation of a toxic aqueous solution. Do not allow run-off from fire fighting to enter drains or water courses.

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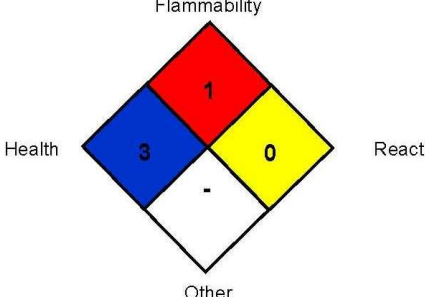


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Explosive Sensitivity to Mechanical Impact: No
Explosive Sensitivity to Static Discharge: No

5.3 Special Fire-Fighting Procedures:

- Incipient fire responders should wear eye protection.
- Structural firefighters must wear Self-Contained Breathing Apparatus (SCBA) and full protective equipment.
- Isolate materials not yet involved in the fire and protect personnel.
- Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray.
- If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM		HMIS RATING SYSTEM	
HAZARDOUS MATERIAL IDENTIFICATION SYSTEM		HAZARDOUS MATERIAL IDENTIFICATION SYSTEM	
		HEALTH HAZARD (BLUE)	3
		FLAMMABILITY HAZARD (RED)	1
		PHYSICAL HAZARD (YELLOW)	0
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			
Hazard Scale: 0 = Minimum 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic Hazard			

SECTION 6 – ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use cautious judgment when cleaning up spill. Wear suitable protective clothing, gloves, and eye/face protection.

6.2 Environmental Precautions:

Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

6.3 Spill and Leak Response:

Small Spills:

- Collect material via broom or mop. Place in tightly sealed containers for proper disposal.
- Approach spill areas with caution.

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- If liquid was introduced, create a dike or trench to contain material.
- Soak up with absorbent material such as clay, sand or other suitable non-reactive material.

Large Spills:

- Place in leak-proof containers. Seal tightly for proper disposal.
- Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

To prevent eye contact under the foreseeable conditions of use, wear appropriate safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Do not handle or store near heat, sparks, or flame.

7.2 Storage and Handling Practices:

Keep away from incompatible materials. Keep container closed when not in use and store in well ventilated area.

7.3 Specific Uses:

Epoxy bonding gel.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure Parameters:

Ingredients	CAS No.	OSHA PEL	NIOSH PEL
Calcium Carbonate	1317-65-3	TWA 5 mg/m ³ (resp) TWA 15 mg/m ³ (total)	TWA 5 mg/m ³ (resp) TWA 10 mg/m ³ (total)
4-Nonylphenol	84852-15-3	Not Listed	Not Listed
4-tert-butylphenol	98-54-4	Not Listed	Not Listed
2,2'-iminodiethylamine diethylenetriamine	140-31-8	Not Listed	Not Listed
2-(2-aminoethylamino)ethanol (AEEA)	111-41-1	Not Listed	Not Listed
Bis[(dimethylamino)methyl]phenol	71074-89-0	Not Listed	Not Listed
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	Not Listed	Not Listed

8.2 Exposure Controls:

Ventilation and Engineering Controls:

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132), or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

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Respiratory Protection:

Not required for properly ventilated areas. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

Eye Protection:

Safety glasses or goggles are required. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

Hand Protection:

Chemical resistant gloves are required to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

Body Protection:

Use body protect appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance (Physical State and Color): Gray gelled liquid

Odor: Characteristic

Odor Threshold: No data available

pH: No data available

Melting/Freezing Point: No data available

Boiling Point: 300°F (148.9°C)

Flash Point: 200°F (93°C)

Evaporation Rate: No data available

Flammability (Solid; Gas): Not applicable

Upper/Lower Flammability or Explosion Limits: No data available

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Vapor Pressure (mm Hg @ 20°C (68° F): 11mm Hg 100° F

Vapor Density: No data available

Relative Density: No data available

Specific Gravity: 1.2

Solubility in Water: Not miscible

Weight per Gallon: No data available

Partition Coefficient (n-octanol/water): No data available

Auto-Ignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

9.2 Other Information: No data available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity:

This product is not reactive.

10.2 Stability:

Stable under conditions of normal storage and use.

10.3 Possibility of Hazardous Reactions:

Will not occur.

10.4 Conditions to Avoid:

Heat, open flame or other sources of ignition.

10.5 Incompatible Substances:

Strong oxidizing agents.

10.6 Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide and other decomposition products can occur during combustion if not use according to specifications.

SECTION 11 – TOXICOLOGY INFORMATION

11.1 Information on Toxicological Effects:

Toxicity Data:

4-Nonylphenol	84852-15-3	LD50 Oral-Rat	1,412 mg/kg
4-tert-butylphenol	98-54-4	LD50 Oral-Rat	> 2,000 mg/kg
2,2'-iminodiethylamine diethylenetriamine	111-40-0	LD50 Oral-Rat	0.3 mg/l- 4h
		LD50 Dermal-Rabbit	1,090 mg/kg
2-piperazin-1-ylethylamine	140-31-8	LD50 Oral-Rat	2,097 mg/l- 4h
		LD50 Dermal-Rabbit	866 mg/kg

Suspected Cancer Agent:

Ingredients within this product are not found on one or more of the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be cancer-causing agents by these agencies.

Irritancy:

Skin, eye and respiratory irritant.

Sensitization to the Product:

This product is not expected to cause skin sensitization.

Germ Cell Mutagenicity:

This product does not contain ingredients that are suspected to be a germ cell mutagenic.

Reproductive Toxicity:

This product is expected to be a human reproductive toxicant.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity:

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4-Nonylphenol	84852-15-3	LC50 – Lepomis macrochirus	0.209 mg/l -96h
		EC50 – Algae	0.33 mg/l – 72h
4-tert-butylphenol	98-54-4	LC50 – Fathead Minnow	5.14 mg/l - 96h
		EC50 – Water flea	4.8 mg/l – 72h
2,2'-iminodiethylamine diethylenetriamine	111-40-0	LC50 – Guppy	1,014 mg/l- 96h

12.2 Persistence and Degradability:	No specific data available on this product.
12.3 Bioaccumulative Potential:	No specific data available on this product.
12.4 Mobility in Soil:	No specific data available on this product.
12.5 Results of PBT and vPvB Assessment:	No specific data available on this product.
12.6 Other Adverse Effects:	No data available
12.7 Water Endangerment Class:	At present, there are no ecotoxicological assessments for this product.

SECTION 13 – DISPOSAL CONSIDERATIONS

<u>13.1 Waste Treatment Methods:</u>	Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Australia, EU Member States and Japan.
<u>13.2 EU Waste Code:</u>	Not determined

SECTION 14 - TRANSPORTATION INFORMATION

<u>14.1 U.S. Department of Transportation (DOT) Shipping Regulations:</u>	
<i>This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.</i>	
UN Identification Number:	UN2735
Proper Shipping Name:	Amines Liquid Corrosive NOS (n-aminothethylpiperazine)
Hazard Class Number and Description:	Class 8 – Corrosive substances
Packing Group:	III
DOT Label(s) Required:	Corrosive substances
North American Emergency Response Guidebook Number:	153
<u>14.2 Environmental Hazards:</u>	
Marine Pollutant:	The components of this product are designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).
<u>14.3 Special Precaution for User:</u>	None
<u>14.4 International Air Transport Association Shipping Information (IATA):</u>	This product is considered as dangerous goods.

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14.5 International Maritime Organization

Shipping Information (IMO):

UN Identification Number:

UN2735

Proper Shipping Name:

Amines Liquid Corrosive NOS
(n-aminothethylpiperazine)

Hazard Class Number and Description:

Class 8 – Corrosive substances

Packing Group:

III

EMS-No:

F-A-S-B

SECTION 15 – REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations Specific for the Substance or Mixture:

United States Regulations:

U.S. SARA Reporting Requirements:

The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA 311/312:

Acute Health: Yes; Chronic Health: Yes; Fire: No; Reactivity: No

U.S. CERCLA Reportable Quantity:

Not Applicable

U.S. TSCA Inventory Status:

The components of this product are listed on the TSCA Inventory or are exempted from listing.

Other U.S. Federal Regulations:

None known

California Safe Drinking Water and Toxic Enforcement Act (Proposition 66):

This product does not contain ingredients on the Proposition 65 Lists.

15.2 Canadian Regulations:

Canadian DSL/NDSL Inventory Status:

Components are DSL Listed, NDSL Listed and/or are exempt from listing

Other Canadian Regulations:

Not applicable

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian WHMIS Classification and Symbols:

This product is Class D2A, Very Toxic Material, per WHMIS Controlled Product Regulations.



15.3 European Economic Community Information:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives. See Section 2 for Details.

Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 Australian Information for Product:

Components of this product are listed on the International Chemical Inventory list.

15.5 Japanese Information for Product:

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Japanese Minister of International Trade and Industry (MITI) Status: The components of this product are not listed as Class I specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

15.6 International Chemical Inventories:

Listing of the components on individual country Chemical Inventories is as follows:

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

U.S. TSCA: Listed

SECTION 16 – OTHER INFORMATION

Prepared By: Chris Eigbrett (MSDS to GHS Compliance)

Date of Printing: April 30, 2015

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. The manufacturer assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, The manufacturer

assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

END OF SDS SHEET