564030

MATERIAL SAFETY DATA SHEET

OCT 31 2008

LPS #31028

DESCRIPTION: PROBOND REGULAR EPOXY, RESIN PHASE

1. Chemical Product and Company Identification

DESCRIPTION: **PROBOND REGULAR EPOXY, RESIN PHASE**
PRODUCT TYPE: EPOXY RESIN COMPOUND
APPLICATION: FOR PRODUCT CODES SEE SECTION 16

Manufacturer/Supplier Information

MSDS Prepared by:
Elmer's Products, Inc.
1000 Kingsmill Parkway
Columbus, OH 43229

Emergency Phone Number
Poison Control Center
1-800-228-5635 ext 22

For additional health, safety or regulatory information, call 614-431-6680.
Call 1-800-848-9400 to place an order or request additional MSDSs.

2. Composition, Information on Ingredients

The ingredients listed below have been associated with one or more immediate and/or delayed(*) health hazards. Risk of damage and effects depends upon duration and level of exposure. BEFORE USING, HANDLING, OR EXPOSURE TO THESE INGREDIENTS, READ AND UNDERSTAND THE MSDS.

		% by weight
25068-38-6	*4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer	>70
112945-52-5	Silica, Amorphous, Fumed, Cryst.-Free	10-30

3. Hazards Identification

3.1 Emergency Overview

Appearance — Transparent viscous paste
Odor — Mild

Will burn.
Skin irritant.
May cause allergic skin reaction.
Eye irritant.

Post-it® Fax Note 7671 | Date 7-13 | # of pages ▶ 29
To Bobby Patton | From Jerry Klatt/Jorwic
Co./Dept. | Co.
Phone # | Phone #
Fax 708-594-4649 | Fax #

HMIS Rating

HEALTH = 2 (moderate)
FLAMMABILITY = 1 (slight)
REACTIVITY = 0 (minimal)
CHRONIC = *

ED-601PART1

READ NEXT PAGE

3.2 Potential Health Effects

Immediate Hazards

INGESTION: Not expected to be harmful under normal conditions of use.

INHALATION: Not expected to be harmful under normal conditions of use. However, if allowed to become airborne, may cause irritation of nose, throat and lungs.

SKIN: Causes irritation.

EYES: Causes irritation.

Delayed Hazards

4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer 25068-38-6
May cause allergic skin reaction.
-- See Footnote C.

Footnote C: As of the date of issuance of this document, this material has not been listed by NTP, classified by IARC nor regulated by OSHA as a carcinogen.

4. First Aid Measures

INGESTION: If accidently swallowed, dilute by drinking large quantities of water. Immediately contact poison control center or hospital emergency room for any other additional treatment directions.

INHALATION: Remove to fresh air.

SKIN: Flush with plenty of water. Remove contaminated clothing. Call a physician if irritation persists.

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to insure water contact with entire surface of eyes and lids. Call a physician.

5. Fire Fighting Measures

Autoignition Temperature	Not available
Upper/Lower Flammable Limits	Not available
Up/Lower Explosive Limits, % by Vol	Not available
Flash Point	480 deg F (249 deg C) (PMCC)

Will burn.
In case of fire, use water spray, dry chemical, foam or CO2. Use water to keep fire-exposed containers cool.

6. Accidental Release Measures

Sweep (scoop) up and remove to a chemical disposal area. Prevent entry into natural bodies of water.

7. Handling and Storage

7.1 Handling

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing.
Wash thoroughly after handling.
INHALATION: Avoid prolonged or repeated breathing of vapor.
SKIN: Avoid contact with skin and clothing.
EYES: Avoid contact with eyes.

7.2 Storage

Store in a cool, dry place.
Keep containers tightly closed.

8. Exposure Controls/Personal Protection

8.1 Exposure Controls

ENGINEERING CONTROLS: The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programs are adequate.
If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentration levels below acceptable criteria.

8.2 Personal Protection

Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air in accordance with OSHA laws and regulations or other applicable standards or guidelines, including ANSI standards regarding respiratory protection. Use goggles if contact is likely. Wear impervious gloves as required to prevent skin contact.

8.3 Exposure Guidelines

4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer 25068-38-6
ACGIH TLV: NONE ESTABLISHED
OSHA PEL: NONE ESTABLISHED

Silica, Amorphous, Fumed, Cryst.-Free 112945-52-5
ACGIH TLV: 10 mg/m³ TWA, inhalable particulate; 3 mg/m³ TWA respirable, Particulates Not Otherwise Classified (PNOC)
OSHA PEL: 20 mppcf; 80/(%SiO2) mg/m³ TWA
REMANDED PEL: 6 mg/m³ TWA
OSHA 1989 PEL remanded, but in effect in some states

9. Physical and Chemical Properties

Percent Volatiles	Negligible
pH @ 25 C	Not available
Specific Gravity	1.17
Appearance	Transparent viscous paste
Autoignition Temperature	Not available
Boiling Point	Not available
Vapor Density (Air=1)	Not available
Vapor Pressure, mm Hg @ 20 C	0.03 @ 25 deg C
Evaporation Rate (Butyl Acetate=1)	Not applicable
Upper/Lower Flammable Limits	Not available
Up/Lower Explosive Limits, % by Vol	Not available
Flash Point	480 deg F (249 deg C) (PMCC)
Freezing Point	Not available
Odor	Mild
Odor Threshold, ppm	Not available
Solubility in Water	Negligible
Coefficient of Water/Oil Distrib.	Not available

10. Stability and Reactivity

Normally stable as defined in NFPA 704-12(4-3.1).

Incompatibilities:

Oxidizers, acids

Decomposition products may include:

CO, aldehydes, organic acids and oxides of nitrogen

Hazardous polymerization:

Will not occur.

Other Hazards:

None known to Borden.

11. Toxicological Information

See Section 3 Hazards Identification information.
4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer 25068-38-6
LC50: Not available
LD50: Not available

Silica, Amorphous, Fumed, Cryst.-Free 112945-52-5
LC50: Not available
LD50: Not available

12. Ecological Information

Not determined.

13. Disposal Considerations

Dispose of according to local, state/provincial, and federal requirements.

14. Transport Information

14.1 U.S. Department of Transportation (DOT)

The data provided in this section is for information only and may not be specific to your package size. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

Non-Regulated.

14.2 Canadian Transportation of Dangerous Goods (TDG)

Non-Regulated.

15. Regulatory Information (Selected Regulations)

15.1 U.S. Federal Regulations

OSHA Hazard Communication Standard 29CFR1910.1200

This material is a "health hazard" and/or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration 29 CFR Part 1910.1200 "Hazard Communication" Standard.

SARA Title III: Section 311/312

Immediate health hazard
Delayed health hazard

SARA Title III Section 313 and 40 CFR Part 372

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372.

None required per SARA TITLE III SECTION 313.

TSCA Section 8(b) Inventory

All reportable chemical substances are listed on the TSCA Inventory. We rely on certifications of compliance from our suppliers for chemical substances *not manufactured by Borden.*

15.2 Canadian Regulations

Workplace Hazardous Materials Information System (WHMIS)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the MSDS contains all the information required by the CPR.

CLASS D, DIV 2B

Canadian Environmental Protection Act (CEPA)

All reportable chemical substances are listed on the Domestic Substances List (DSL) or otherwise comply with CEPA new substance notification requirements.

National Pollutant Release Inventory (NPRI)

This product contains the following chemical(s) subject to the reporting requirements of the Canadian Environmental Protection Act (CEPA) subsection 16(1), National Pollutant Release Inventory.

None required.

16. Other Information

MSDS covers items:
U.S.: E601 Part1
Canada: 60602 Part1

User's Responsibility

The OSHA Hazard Communication Standard 29CFR 1910.1200 and the Workplace Hazardous Materials Information System (WHMIS) require that the information contained on these sheets be made available to your workers. Educate and train your workers regarding OSHA and WHMIS precautions. Instruct your workers to handle this product properly. Consult with appropriate experts to guard against hazards associated with use of this product and its ingredients.

Disclaimer

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

CUR ISSUE 04-JUN-98
PREVIOUS ISSUE: 02-JUN-98

MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

DESCRIPTION: **PROBOND REGULAR EPOXY, HARDENER PHASE**
PRODUCT TYPE: POLYAMIDE RESIN
APPLICATION: FOR PRODUCT CODES SEE SECTION 16

Manufacturer/Supplier Information

MSDS Prepared by:
Elmer's Products, Inc.
1000 Kingsmill Parkway
Columbus, OH 43229

Emergency Phone Number
Poison Control Center
1-800-228-5635 ext 22

For additional health, safety or regulatory information, call 614-431-6680.
Call 1-800-848-9400 to place an order or request additional MSDSs.

2. Composition, Information on Ingredients

The ingredients listed below have been associated with one or more immediate and/or delayed(*) health hazards. Risk of damage and effects depends upon duration and level of exposure. BEFORE USING, HANDLING, OR EXPOSURE TO THESE INGREDIENTS, READ AND UNDERSTAND THE MSDS.

		% by weight
112-24-3	*Triethylenetetramine	10-30
68410-23-1	Fatty Acids, C18-Unsatd., Dimers, Reaction Products With Polyethylenepolyamines	>70
112945-52-5	Silica, Amorphous, Fumed, Cryst-Free	10-30

3. Hazards Identification

3.1 Emergency Overview

Appearance — Amber paste
Odor — Amine odor

Will burn.
Causes chemical burns to skin.
Causes chemical burns to eyes.
May be harmful if inhaled.
May cause allergic skin and respiratory reactions.
May be harmful if absorbed through skin.

ED-601PART2

HMIS Rating

HEALTH = 3 (serious)
FLAMMABILITY = 1 (slight)
REACTIVITY = 0 (minimal)
CHRONIC = *

3.2 Potential Health Effects

Immediate Hazards

INGESTION: Not expected to be harmful under normal conditions of use.
If accidently swallowed, burns or irritation to mucous membranes, esophagus or GI tract can result.

INHALATION: May be harmful if inhaled. Vapor may cause irritation of nose, throat and lungs.

SKIN May be harmful if absorbed through skin. Causes chemical burns.

EYES: Causes chemical burns.

Delayed Hazards

Triethylenetetramine 112-24-3
May cause allergic skin and respiratory reactions.
Can cause lung damage. Pre-existing respiratory disorders may be aggravated by exposure.
Can cause liver damage.
Can cause kidney damage.
-- See Footnote C.

Footnote C: As of the date of issuance of this document, this material has not been listed by NTP, classified by IARC nor regulated by OSHA as a carcinogen.

4. First Aid Measures

INGESTION: If accidently swallowed, dilute by drinking large quantities of water. Immediately contact poison control center or hospital emergency room for any other additional treatment directions.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Call a physician.

SKIN: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing and shoes before

4. First Aid Measures

reuse.

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to insure water contact with entire surface of eyes and lids. Call a physician.

5. Fire Fighting Measures

Autoignition Temperature	Not available
Upper/Lower Flammable Limits	Not available
Up/Lower Explosive Limits, % by Vol	Not available
Flash Point	> 428 deg F (> 220 deg C) (COC)

Will burn.
In case of fire, use water spray, dry chemical, foam or CO2. Use water to keep fire-exposed containers cool.

6. Accidental Release Measures

Sweep (scoop) up and remove to a chemical disposal area. Prevent entry into natural bodies of water.

7. Handling and Storage

7.1 Handling

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing.
Wash thoroughly after handling.
INHALATION: Avoid breathing vapor. Use with adequate ventilation.
SKIN: Do not get on skin or on clothing.
EYES: Do not get in eyes.

7.2 Storage

Store in a cool, dry place.
Keep containers tightly closed.

8. Exposure Controls/Personal Protection

8.1 Exposure Controls

ENGINEERING CONTROLS: The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective

8.1 Exposure Controls

equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programs are adequate.
If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentration levels below acceptable criteria.

8.2 *Personal Protection*

Wear synthetic apron and boots if contact is likely. Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air in accordance with OSHA laws and regulations or other applicable standards or guidelines, including ANSI standards regarding respiratory protection. Use goggles and face shield if contact is likely. Wear impervious gloves as required to prevent skin contact.

8.3 Exposure Guidelines

Triethylenetetramine 112-24-3
ACGIH TLV: NONE ESTABLISHED
OSHA PEL: NONE ESTABLISHED

Fatty Acids, C18-Unsatd., Dimers, Reaction Products With Polyethylenepolyamines 68410-23-1
ACGIH TLV: NONE ESTABLISHED
OSHA PEL: NONE ESTABLISHED

Silica, Amorphous, Fumed, Cryst.-Free 112945-52-5
ACGIH TLV: 10 mg/m³ TWA, inhalable particulate; 3 mg/m³ TWA respirable, Particulates Not Otherwise Classified (PNOC)
OSHA PEL: 20 mppcf; 80/(%SiO2) mg/m³ TWA
REMANDED PEL: 6 mg/m³ TWA
OSHA 1989 PEL remanded, but in effect in some states

9. Physical and Chemical Properties

Percent Volatiles	Negligible
pH @ 25 C	Not available
Specific Gravity	0.97
Appearance	Amber paste
Autoignition Temperature	Not available
Boiling Point	Decomposed
Vapor Density (Air=1)	Not available
Vapor Pressure, mm Hg @ 20 C	Negligible @ 20 deg C
Evaporation Rate (Butyl Acetate=1)	Not applicable
Upper/Lower Flammable Limits	Not available
Up/Lower Explosive Limits, % by Vol	Not available
Flash Point	> 428 deg F (> 220 deg C) (COC)

9. Physical and Chemical Properties

Freezing Point	Not available
Odor	Amine odor
Odor Threshold, ppm	Not available
Solubility in Water	Slight
Coefficient of Water/Oil Distrib.	Not available

10. Stability and Reactivity

Normally stable as defined in NFPA 704-12(4-3.1).

Incompatibilities:

Oxidizers, acids

Decomposition products may include:

Oxides of carbon and nitrogen.

Hazardous polymerization:

Will not occur.

Other Hazards:

None known to Borden.

11. Toxicological Information

See Section 3 Hazards Identification information.

Triethylenetetramine 112-24-3
LC50: Not available
LD50: orl-rat=2.5 g/kg (Merck)

Fatty Acids, C18-Unsatd., Dimers, Reaction Products With Polyethylenepolyamines 68410-23-1
LC50: Not available
LD50: Not available

Silica, Amorphous, Fumed, Cryst.-Free 112945-52-5
LC50: Not available
LD50: Not available

12. Ecological Information

Not determined.

13. Disposal Considerations

Dispose of according to local, state/provincial, and federal requirements.

14. Transport Information

14.1 U.S. Department of Transportation (DOT)

The data provided in this section is for information only and may not be specific to your package size. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

Non-Regulated.

14.2 Canadian Transportation of Dangerous Goods (TDG)

Non-Regulated.

15. Regulatory Information (Selected Regulations)

15.1 U.S. Federal Regulations

OSHA Hazard Communication Standard 29CFR1910.1200

This material is a "health hazard" and/or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration 29 CFR Part 1910.1200 "Hazard Communication" Standard.

SARA Title III: Section 311/312

Immediate health hazard
Delayed health hazard

SARA Title III Section 313 and 40 CFR Part 372

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372.

None required per SARA TITLE III SECTION 313.

TSCA Section 8(b) Inventory

All reportable chemical substances are listed on the TSCA Inventory. We rely on certifications of compliance from our suppliers for chemical substances not manufactured by Borden.

15.2 Canadian Regulations

Workplace Hazardous Materials Information System (WHMIS)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the MSDS contains all the information required by the CPR.

CLASS D, DIV 1B
CLASS D, DIV 2A, 2B
CLASS E

Canadian Environmental Protection Act (CEPA)

All reportable chemical substances are listed on the Domestic Substances List (DSL) or otherwise comply with CEPA new substance notification requirements.

National Pollutant Release Inventory (NPRI)

This product contains the following chemical(s) subject to the reporting requirements of the Canadian Environmental Protection Act (CEPA) subsection 16(1), National Pollutant Release Inventory.

None required.

16. Other Information

MSDS covers items:
U.S.: E601 Part2
Canada: 60602 Part2

User's Responsibility

The OSHA Hazard Communication Standard 29CFR 1910.1200 and the Workplace Hazardous Materials Information System (WHMIS) require that the information contained on these sheets be made available to your workers. Educate and train your workers regarding OSHA and WHMIS precautions. Instruct your workers to handle this product properly. Consult with appropriate experts to guard against hazards associated with use of this product and its ingredients.

Disclaimer

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

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