

# Material Safety Data Sheet

Revision Date: 09-06-2012

Product Code: 70715

## I. PRODUCT AND COMPANY IDENTIFICATION

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**Product Name:** EPOXY RESIN HARDENER  
**Product Code:** 70715  
**Document ID:** M70715  
**Company:** NEOGARD® - a Division of JONES-BLAIR® Company  
2728 Empire Central  
Dallas, TX 75235  
1-214-353-1600

**Revision Number:** 6  
**Prior Version Date:** 12-01-2011  
**Chemical Family:** Epoxy Hardener  
**Intended use:** Epoxy Coating Polyamide Co-Reactant  
**Emergency Contact:** ChemTrec Center  
**Emergency Phone:** 1-800-424-9300  
**International:** 703-527-3887

## II. HAZARDS IDENTIFICATION

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**EMERGENCY OVERVIEW:** **DANGER!**  
Causes eye burns.  
May cause allergic skin reaction.  
Causes skin burns.  
Toxic if swallowed. May cause target organ failure and/or death.  
Vapor harmful.  
May be harmful if absorbed through skin.

**Routes of Entry:**

- Inhalation
- Skin absorption
- Ingestion
- Eye contact
- Skin contact

**Target Organs Potentially Affected by Exposure:**

- Central nervous system
- Skin
- Respiratory Tract
- Kidneys
- Liver

**Medical Conditions Aggravated by Exposure:**

- Respiratory disorders, including but not limited to asthma and bronchitis.
- Skin allergies.
- Eye disorders.
- Skin disorders.
- Contains salicylic acid which may cause allergic reactions in aspirin-sensitive people.
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**Immediate (Acute) Health Effects by Route of Exposure:**

**Inhalation Irritation:** Causes nose and throat irritation. Causes lung irritation. Irritating to the nose, throat, and respiratory tract. Can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.

**Inhalation Toxicity:** May cause allergic respiratory reaction. Inhalation of high concentrations may be corrosive with symptoms of coughing, burning, ulceration and pain.

**Skin Contact:** Corrosive to skin tissue. Can cause chemical burns. Sensitizer. Avoid exposure. If sensitized, repeated exposures will result in irritation, reddening, and rashes even for very low exposures.

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- Skin Absorption:** May cause allergic skin reaction.  
May be harmful if absorbed through skin. Contains a substance which may result in absorption of harmful amounts upon prolonged or widespread contact.
- Eye Contact:** Corrosive to eye tissue. Can cause severe irritation, tearing, and burns that can quickly lead to permanent injury including blindness. Can cause substantial irritation.
- Ingestion Irritation:** Severely irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.
- Ingestion Toxicity:** Harmful if swallowed. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed.

## Long-Term (Chronic) Health Effects:

- Inhalation:** Upon prolonged and/or repeated exposure, can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness. Overexposure may cause lung damage. Prolonged and continuous exposure to an excessive concentration has been shown to affect respiratory function. This effect may be severe. Overexposure may cause respiratory tract damage.
- Skin Contact:** Upon prolonged or repeated contact can cause severe irritation, defatting, and dermatitis. May cause lingering effects but not likely to result in permanent damage if the exposure is eliminated. Prolonged contact may cause an allergic skin reaction.
- Skin Absorption:** Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage.
- Chronic Effects of Exposure:** Contains ingredients which can cause liver and kidney damage.

## III. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	%	CAS #
Benzyl alcohol	10 - 30	100-51-6
3-amino methyl-3,5,5 Trimethyl Amine	10 - 30	2855-13-2
Polyoxypropylenediamine	7 - 13	9046-10-0
Epoxy Amine Adduct	7 - 13	Not Available
Oxirane based epoxy homopolymer	1 - 5	25085-99-8
2,4,6-Tri(dimethylaminomethyl)phenol	1 - 5	90-72-2
Hydroxybenzoic Acid	1 - 5	69-72-7
M-Aminoethylpiperazine	1 - 5	140-31-8
Diethylenetriamine	0.5 - 1.5	111-40-0

## IV. FIRST-AID MEASURES

- Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
- Eyes:** Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. This corrosive material can cause immediate and permanent eye damage. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.
- Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists. Thoroughly wash or discard clothing and shoes before reuse.
- Ingestion:** Corrosive. Do not induce vomiting! Drink one glass of water followed by milk if available. Seek medical attention immediately and give the medical care provider with this MSDS. Never give anything by mouth to an unconscious person.

## V. FIRE FIGHTING MEASURES

- Extinguishing Media:** Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

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<b>Fire and/or Explosion Hazards:</b>	Material may be ignited only if preheated to temperatures above the high flash point, for example in a fire. Container may explode in heat of fire. Empty containers that retain product residue (liquid, solid/sludge, or vapor) can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose container to heat, flame, sparks, static electricity, or other sources of ignition. Any of these actions can potentially cause an explosion that may lead to injury or death.
<b>Fire Fighting Methods and Protection:</b>	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.
<b>Hazardous Combustion Products:</b>	Carbon dioxide, Carbon monoxide, Nitrogen containing gases, Ammonia, Aldehydes, Phenol, Ketones
<b>Flash Point (°F/°C):</b>	205 / 96
<b>Autoignition Temperature (°F/°C):</b>	716.0 / 380.0
<b>Lower Flammable/Explosive Limit, % in air:</b>	0.7
<b>Upper Flammable/Explosive Limit, % in air:</b>	5.0

## VI. ACCIDENTAL RELEASE MEASURES

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<b>Personal Precautions and Equipment:</b>	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.
<b>Methods for Clean-up:</b>	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Dike with suitable absorbent material. Gather and store in a sealed container pending disposal.

## VII. HANDLING AND STORAGE

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<b>Handling Technical Measures and Precautions:</b>	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. As with all chemicals, good industrial hygiene practices should be followed when handling this material. Wash thoroughly after handling. Do not get in eyes, on skin and clothing. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Remove contaminated clothing and wash before reuse.
<b>Storage Technical Measures and Conditions:</b>	Store in a cool dry place. Keep container(s) closed.

## VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

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<b>Engineering Measures:</b>	Local exhaust ventilation or other engineering controls may be required when handling or using this product to avoid overexposure. Engineering controls must be designed to meet the OSHA chemical specific standard in 29 CFR 1910. Facilities storing or using this material should be equipped with an eyewash and safety shower.
<b>Respiratory Protection:</b>	General or local exhaust ventilation is the preferred means of protection. In cases where ventilation is inadequate, respiratory protection may be required to avoid overexposure. Follow respirator manufacturer's directions for respirator use.
<b>Eye Protection:</b>	Wear chemical splash goggles when handling this product. Additionally, wear a face shield when the possibility of splashing of liquid exists. Do not wear contact lenses. Have an eye wash station available.
<b>Skin Protection:</b>	Avoid all skin contact by covering as much of the exposed skin area as possible with

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appropriate clothing to prevent skin contact. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Clothing suitable to prevent skin contact. Wear chemical resistant gloves.

## Control Parameters:

Chemical Name	ACGIH TLV-TWA	ACGIH STEL	OSHA PEL-TWA
Hydroxybenzoic Acid	3mg/m <sup>3</sup> (respirable)		5mg/m <sup>3</sup> (respirable); 15mg/m <sup>3</sup> (total dust)
Diethylenetriamine	1ppm, 4.2mg/m <sup>3</sup> TWA		

## IX. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Colorless
Physical State:	Liquid
Boiling Point - Low (°F):	392.0
Boiling Point - High (°F):	476.6
Evaporation Rate:	> 1 Ethyl Ether
Odor:	Aromatic, Ammonia Like
Vapor Density:	0.95
Vapor Pressure:	1.00
VOC (g/l) (Regulatory, Calculated):	0.00
(Actual, Calculated):	0.00
Viscosity:	150 - 250 CPS
Solubility in Water:	Low; 10-39%
Octanol/Water Partition Coefficient:	Not Available
Volatiles, % by Volume (Calculated):	0.00
Volatiles, % by weight (Calculated):	0.00
Density:	8 - 9 lbs./Gal.

Physical and Chemical Properties are calculated target or range values for single packaged items and do not represent compliance values for multi-component (mixed) systems.

## X. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition. Contamination. High humidity,
Materials to Avoid/Chemical Incompatibility:	Acids, Aluminum alloys, Oxidizing agents, Isocyanates, Anhydrides, Amines, Caustics (bases, alkalis), Lead acetate, Iron Salts, Iodine, Spirit nitrous ether, Acrylates, Aldehydes, Alcohols, Halogenated Hydrocarbons, Ketones, Nitrites
Polymerization:	Will not occur.
Hazardous Decomposition Products:	Carbon dioxide, Carbon monoxide, Nitrogen containing gases, Ammonia, Aldehydes, Phenol, Ketones, Ammonia, Ethylenediamine, Amines

## XI. TOXICOLOGICAL INFORMATION

### Component Toxicology Data:

Chemical Name	CAS Number	LD50/LC50
Benzyl alcohol	100-51-6	Oral LD50 Rat 1,230 - 3,100 mg/kg Dermal LD50 Rabbit 2,000 mg/kg Inhalation LC50 (8h) Rat 1,000 ppm
3-amino methyl-3,5,5 Trimethyl Amine	2855-13-2	Oral LD50 Rat 1,030 mg/kg
Polyoxypropylenediamine	9046-10-0	Dermal LD50 > 2,000 mg/kg Oral LD50 > 2,000 mg/kg

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Oxirane based epoxy homopolymer	25085-99-8	Oral LD50 Rat > 5,000 mg/kg Dermal LD50 Rabbit 4,000 mg/kg
2,4,6-Tri(dimethylaminomethyl)phenol	90-72-2	Oral LD50 < 2,000 mg/kg Dermal LD50 <= 2,000 mg/kg
Hydroxybenzoic Acid	69-72-7	Oral LD50 Rat 891 mg/kg Oral LD50 Mouse 480 mg/kg Oral LD50 Rabbit 1,300 mg/kg Dermal LD50 Rabbit > 10,000 mg/kg Dermal LD50 Rat > 2,000 mg/kg Inhalation LC50 (1h) Rat > 900 mg/m <sup>3</sup>
M-Aminoethylpiperazine	140-31-8	Oral LD50 Rat 2 g/kg Dermal LD50 Rabbit 1 g/kg
Diethylenetriamine	111-40-0	Oral LD50 Rat 1,080 - 2,330 mg/kg Dermal LD50 Rabbit 1,000 mg/kg Dermal LD50 Rat 672 - 1,240 mg/kg

## Carcinogens:

Chemical Name	CAS Number	IARC	NTP	OSHA
Not applicable				

## XII. ECOLOGICAL INFORMATION

Toxicity data, if available, are listed below.

**Overview:** Components of this product are hazardous to wildlife and aquatic life.

## XIII. DISPOSAL CONSIDERATIONS

**Disposal Methods:** Refer to other sections of this MSDS to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

## XIV. TRANSPORTATION INFORMATION

This section provides basic shipping classification information and does not contain all regulatory transportation details. Refer to all applicable regulations for domestic, international, air, vessel and ground transportation requirements and restrictions.

**DOT Basic Description:** Paint Related Material  
**Hazard Class:** 8  
**UN Number:** UN3066  
**Packing Group:** III  
**Other:** This product qualifies for a limited quantity exception per CFR173.154(b)(2) for inner containers <= 1.3 gallon (5L) net capacity for liquids and packed in strong outer packagings.

**IATA Air Shipping Name:** Paint Related Material  
**IATA Hazard Class:** 8  
**IATA UN Number:** UN3066  
**IATA Packing Group:** III

**IMO Shipping Name:** Paint Related Material  
**IMO Hazard Class:** 8  
**IMO UN Number:** UN3066  
**IMO Packing Group:** III

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Marine Pollutant: N

## XV. REGULATORY INFORMATION

### United States Federal Regulations:

**TSCA Status** All components of this product are either listed on the TSCA Inventory; or, are not subject to the inventory notification requirements.

<b>SARA EHS Chemicals</b>	<b>CAS #</b>	<b>%</b>
Epichlorohydrin	106-89-8	< 0.1 ppm

**CERCLA**  
Not applicable

**SARA 313**  
Not applicable

**SARA 311/312**

Health (Acute):	Y
Health (chronic):	Y
Fire (Flammable):	N
Pressure:	N
Reactivity:	N

### U. S. State Regulations:

#### **California Prop 65 Chemicals**

<b>Cancer</b>	<b>CAS #</b>	<b>%</b>
Phenyl glycidyl ether	122-60-1	< 1 ppm
1-Chloro-2,3-epoxypropane	106-89-8	< 0.1 ppm

**Reproductive**  
Not applicable

### Canadian Regulations:

**CEPA DSL:** The components of this product ARE listed on the Canadian Domestic Substances List.

**WHMIS Hazard Class:** D2A E

## XVI. ADDITIONAL INFORMATION

**Prepared By:** Regulatory Department

**Disclaimer:** This MSDS has been prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada's Controlled Product Regulations (CPR). To the best of our knowledge the information contained herein is accurate. Determination of safe handling, application and use of this material is the responsibility of the end user. This information is furnished without warranty, expressed or implied.

**Print Date:** September 06, 2012