

## SAFETY DATA SHEET

### POLYMER STEEL RG HARDENER

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** POLYMER STEEL RG HARDENER

**PRODUCT CODE:** #PSRGHARD

**PRODUCT USE:** Hardener for 2 component epoxy coatings

**MANUFACTURER**

DUDICK, a DIVISION OF CARBOLINE GLOBAL  
INC.

1818 MILLER PARKWAY  
STREETSBORO, OH, 44241  
330-562-1970

**24 HR. EMERGENCY TELEPHONE NUMBER**

**CHEM-TEL (US Transportation):** (800)255-3924

**CHEM-TEL (International :** +01-813-248-  
0585

**Transportation)**

#### 2. HAZARDS IDENTIFICATION

**CLASSIFICATION:**

Skin Corrosive - Category 1B

Serious Eye Damage/Eye Irritation - Category 1

Acute Toxicity - Oral - Category 4

Skin Sensitizer - Category 1

Acute Toxicity - Inhalation - Category 4

Germ cell mutagenicity - Category 2

Specific target organ toxicity - repeated exposure - Category 2

Acute Toxicity - Dermal - Category 4

**GHS LABEL ELEMENTS:**



**SIGNAL WORD:** Danger

**HAZARD STATEMENTS:**

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects .

H302 + H312 Harmful if swallowed or in contact with skin.

H373 Causes damage to organs through prolonged or repeated exposure

**PRECAUTIONARY STATEMENTS :**

P201 Obtain special instructions before use.

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

P261 Avoid breathing vapors/spray.

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P264 Wash all contacted body parts thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P281 Use personal protective equipment as required.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P363 Wash contaminated clothing before reuse.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local, regional, and federal regulations.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

### 3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Chemical Name	Weight %	CAS Number
Triethylenetetramine	10% to 15%	112-24-3
Hydroxy Modified Resin	0% to 5%	PROPRIETARY
Hydroxybenzene	0% to 5%	108-95-2
1,3-Bis(aminomethyl)benzene	0% to 5%	1477-55-0

No further information available for this product.

If CAS number is "proprietary", the specific chemical identity has been withheld by the manufacturer as a trade secret.

### 4. FIRST AID MEASURES

**EYES:** Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.

**SKIN:** Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.

**INGESTION:** Do not induce vomiting without medical advice.

Never give anything by mouth to an unconscious person.

Consult physician.

**INHALATION:** Consult a physician after significant exposure. Move person to fresh air. If unconscious place in recovery position and seek medical advice.

If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc.).

If breathing is difficult, oxygen should be administered by qualified personnel.

**NOTES TO PHYSICIAN:** NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.

### 5. FIRE FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** Alcohol resistant foam; Carbon Dioxide (CO<sub>2</sub>); dry chemical; dry sand; limestone powder; use water to keep containers cool.

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**UNSUITABLE EXTINGUISHING MEDIA:** Do not use high pressure water jet as this may spread the area of the fire.

**SPECIFIC HAZARDS IN CASE OF FIRE:** Burning may produce noxious and toxic fumes. Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gasses. Downwind personnel should be evacuated.

Closed containers may rupture (due to build up in pressure) when exposed to extreme heat.

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTION FOR FIRE FIGHTERS:** Face Shield should be worn.

Wear self-contained breathing apparatus (SCBA) in positive pressure mode and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Isolate area; ensure adequate ventilation; remove all sources of ignition; use appropriate personal protection equipment; avoid breathing mist, vapors, spray; avoid contact with skin, eyes and clothing; keep unnecessary and unprotected personnel from entering the involved area.

**ENVIRONMENTAL PRECAUTIONS:** Halt the flow of material as soon as practical using appropriate barriers; Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches, waterways by using sand, earth or appropriate barriers.

**METHOD AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Soak up with sand, earth, diatomaceous earth or other suitable inert absorbent material; collect into suitable waste disposal containers. Wash spillage site with large amounts of water. Dispose of in accordance with applicable local and federal environmental control laws and regulations.

## 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Use only in well-ventilated areas. Avoid contact with skin and eyes. Avoid breathing vapors and/or aerosols. Emergency showers and eye wash stations should be readily accessible. Use personal protective equipment. When using, do not eat, drink or smoke.

**CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:** Do not store near incompatibles (strong oxidizers, acids, alkalis). Do not store near excessive heat or near sources of ignition. Keep container tightly closed when not in use.

## 8. EXPOSURE CONTROLS\PERSONAL PROTECTION

### EXPOSURE LIMITS

Components	CAS	Limits
Triethylenetetramine	112-24-3	WEEL; TWA 1.0 ppm
Hydroxy Modified Resin	PROPRIETARY	None established.
Hydroxybenzene	108-95-2	ACGIH TLV; TWA 5 ppm
1,3-Bis(aminomethyl)benzene	1477-55-0	NIOSH REL; Ceil 0.10 mg/m <sup>3</sup>

**ENGINEERING CONTROLS:** Ventilation:

Use local exhaust ventilation, or other engineering controls to maintain airborne levels requirements or guidelines, general ventilation should be sufficient for most operations.

### PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATORY PROTECTION:** If ventilation is inadequate or if irritation or other symptoms are experienced, wear a NIOSH/MHSA approved respirator with organic vapor cartridge.

**EYES PROTECTION:** Full face shield with goggles underneath.

**SKIN PROTECTION:** Impervious clothing. Rubber or plastic boots.

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Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Hand protection: Use chemical resistant gloves. Consult glove manufacturer for recommendations.

**WORK HYGIENIC PRACTICES:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating. Wash contaminated clothing before reuse. Eye wash stations and emergency showers should be available.

**OTHER USE PRECAUTIONS:** The type and degree of personal protective equipment will depend on the specific work operation. Eye wash stations and emergency showers should be available. Inspect and replace personal protective equipment at regular intervals; use professional care in their selection, use and care.

**COMMENTS:** None.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Heavy Paste

**COLOR:** Varies

**FLASH POINT AND METHOD:** 148 °C CC

**AUTO-IGNITION TEMPERATURE:** Not Determined.

**BOILING POINT/RANGE:** 200 C

**MELTING POINT:** Not Determined.

**VAPOUR PRESSURE:** Not determined.

**VAPOUR DENSITY:** Heavier than air.

**SOLUBILITY:** Not determined.

**ODOR/THRESHOLD:** Amine-like.

**LOWER / UPPER FLAMMABLE LIMITS:** No data available for this product. TO No data available for this product.

**DENSITY:** 1.9261

**EVAPORATION RATE:** Slower than ether.

**PARTITION COEFFICIENT:** Not determined.

**pH:** Not Applicable.

**DECOMPOSITION TEMPERATURE:** Not determined.

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** This product is stable under normal storage conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Mixtures with strongly acidic materials may produce an exothermic reaction.

**CONDITIONS TO AVOID:** Avoid elevated temperatures and sources of ignition.

**MATERIALS TO AVOID:** Sodium hypochlorite. Organic acids (i.e. acetic acid, citric acid etc.). Mineral acids.

Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.

Reactive metals (e.g. sodium, calcium, zinc etc.).

Materials reactive with hydroxyl compounds.

Oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Nitric acid. Ammonia Nitrogen oxides (NOx).

Nitrogen oxide can react with water vapors to form corrosive nitric acid.

Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

Aldehydes. Flammable hydrocarbon fragments.

Organic acid vapors.

## 11. TOXICOLOGICAL INFORMATION

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## **SIGNS AND SYMPTOMS OF OVEREXPOSURE:**

### **ACUTE EFFECTS:**

**EYE CONTACT:** Causes eye burns. May cause blindness. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. Exposed individuals may see rings around bright lights. This effect is temporary and has no known residual effect. Product vapor can cause glaucoma (corneal edema) when absorbed into the tissue of the eye from the atmosphere.

**SKIN CONTACT:** Causes skin burns.

**INHALATION:** Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system. Inhalation of aerosol may cause irritation to the upper respiratory tract. May cause nose, throat, and lung irritation. Can cause severe eye, skin and respiratory tract burns.

**INGESTION:** Harmful if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

**TARGET ORGAN:** No data available for this product.

**CHRONIC EFFECTS:** Not determined

**TOXICITY VALUES:** Not determined

## **12. ECOLOGICAL INFORMATION**

### **PERSISTENCE AND DEGRADABILITY:**

Not determined.

### **BIO-ACCUMULATIVE POTENTIAL:**

No data available for this product.

### **MOBILITY IN SOIL:**

Not determined.

### **OTHER ADVERSE EFFECTS:**

Not known.

### **ECOTOXICOLOGICAL OTHER INFORMATION:**

No data available for this product.

## **13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:** Dispose of according to local, state, and federal regulations through a licensed disposal facility.

## **14. TRANSPORT INFORMATION**

**UN NUMBER:** UN2735

**UN PROPER SHIPPING NAME:** Amines, liquid, corrosive, n.o.s.,(meta-Xylenediamine, Triethylenetetramine)

**TRANSPORT HAZARD CLASS:**

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**TRANSPORT HAZARD SUBCLASS:**

Not applicable.

**PACKING GROUP:** II

**MARINE POLLUTANT Y/N:**

No

**SPECIAL PRE-CAUTIONS:** None

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## 15. REGULATORY INFORMATION

### U.S. REGULATIONS:

All components of this product are listed on or exempt from the TSCA Inventory.

### U.S. SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

#### 311/312 HAZARD CATEGORIES:

**FIRE:** No

**PRESSURE GENERATING:** No

**REACTIVITY:** No

**ACUTE:** Yes

**CHRONIC:** Yes

#### 313 REPORTABLE INGREDIENTS:

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Chemical Name	Weight %	CAS
Hydroxybenzene	0% to 5%	108-95-2

#### 302/304 EMERGENCY PLANNING

**EMERGENCY PLAN:** No reportable components

### STATE REGULATIONS:

No components are known to be on the California Proposition 65 list.

#### Massachusetts Right To Know Components

Chemical Name	CAS
Triethylenetetramine	112-24-3
Hydroxybenzene	108-95-2
1,3-Bis(aminomethyl)benzene	1477-55-0

#### Pennsylvania Right To Know Components

Chemical Name	CAS
Triethylenetetramine	112-24-3
Hydroxybenzene	108-95-2
1,3-Bis(aminomethyl)benzene	1477-55-0

#### New Jersey Right To Know Components

Chemical Name	CAS
Triethylenetetramine	112-24-3
Hydroxybenzene	108-95-2
1,3-Bis(aminomethyl)benzene	1477-55-0

**OTHER GOVT. REGULATIONS:** No other information available

## 16. OTHER INFORMATION

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responsibility of the user to ensure that he/she has all of the current data and MSDS relevant to the material thereon and to comply with all Federal, State and Local Regulations.

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