

**Safety Data Sheet**  
**Acid Shield Hardener - Part B**

**Section 1. Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** Acid Shield Hardener – Part B

**Description:** Amine solution

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Recommended use:** Intended to repair pipes

**Uses advised against:** No information available

**1.3. Details of the supplier of the safety data sheet**

**Supplier:** NRI  
3875 Fiscal Court Suite #100  
Riviera Beach, FL 33404. USA.  
1- 561 - 683 - 6992

**E-mail address:** Europe@neptunerresearch.com

**1.4. Emergency telephone number:** USA 800-535-5053 (only available during office hours)  
Europe +48 33 488 12 85 (only available during office hours)

**Section 2. Hazards identification**

**2.1. Classification of the substance or mixture**

**2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)**

Skin corrosion/irritation – Category 1B

Acute toxicity/oral – Category 4

Acute toxicity/dermal – Category 4

Skin sensitization – Category 1

**2.2 Label elements**

**Hazard pictograms:**



**Signal word:** Danger

**Hazard statements:**

H314 Causes severe skin burns and eye damage.

H302 Harmful if swallowed

H312 Harmful in contact with skin

H317 May cause an allergic skin reaction

**Precautionary statement:**

P260 Do not breathe mist/vapors/spray.



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P264 Wash skin thoroughly after handling.  
 P280 Wear protective gloves / protective clothing / eye protection / face protection.  
 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.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P304 + P340 IF INHALED: Remove 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.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents/container through a waste management company authorized by the local government

### 2.3. Other information

### Section 3. Composition/ Information on Ingredients

**3.1. Substances:** Not Applicable

#### 3.2. Mixtures

Component	EC No	CAS #	Weight %	EU-GHS Substance Classification	REACH Number
Alkylated phenolic polyamine	614-465-8	68413-29-6	90 - 100	Skin Corr. 1B (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Sens. 1 (H317)	Not data available

**For the full text of the H-Statements mentioned in this Section, see Section 16**

### Section 4. First Aid Measures

#### 4.1. Description of first-aid measures

##### First aid measures for accidental

**General advice:** If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

**Eye Contact:** Bathe the eye with running water for at least 15 minutes, lifting upper and lower eyelids; get medical attention if irritation develops.

**Skin Contact** Drench the affected skin with running water for at least 15 minutes; clean area of contact thoroughly using soap and water; remove contaminated clothing. If irritation, rash or other disorders develop, get medical attention immediately.

**Ingestion** Do not induce vomiting. If conscious give 3-4 glasses of water to drink immediately. If unconscious check for breathing and apply artificial respiration if necessary. If symptoms persist, call a physician.

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**Inhalation** Move person to fresh air. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. If conscious, have the person sit down or lie down. If breathing is difficult provide oxygen if available; get medical attention.

**Protection of first-aiders:** Use personal protective equipment. Avoid contact with skin, eyes and clothing.

**4.2 Most important symptoms/effects, acute and delayed:** Causes severe skin burns and eye damage; respiratory irritation. May cause an allergic skin reaction.

**4.3 Indication of immediate medical attention and special treatment needed:**

Treat symptomatically. Corticoid preparations and antihistamine may assist treating skin and mucous membrane exposures. Eye wash station and emergency showers should be available.

### Section 5. Fire Fighting Measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Carbon dioxide, dry chemical, water fog, alcohol resistant foam.

**Unsuitable extinguishing media:** No data available.

#### 5.2 Special hazards arising from the substance or mixture

**Hazardous combustion products:** Irritating or toxic substance may be emitted upon thermal decomposition including carbon monoxide, carbon dioxide and nitrogen oxides.

**5.3 Advice for firefighters:** Wear complete fire fighting gear and self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. Use water to keep fire exposed containers cool. Do not use high volume water jet on the fire as this may spread the area of the fire. Keep unprotected personnel away.

### Section 6. Accidental Release Measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

##### 6.1.1 For non-emergency personnel

**Protective equipment:** Use personal protective equipment (See Section) to prevent any contamination of skin, eyes and personal clothing.

**Emergency procedures:** Remove ignition sources. Evacuate personnel to safe areas. Keep unnecessary and unprotected personnel from entering the involved area. Deny entry to unauthorized and unprotected personnel. Avoid breathing vapors or mists. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

**6.1.2 For emergency responders:** Use appropriate personal protective clothing. Use gloves and safety glasses.

**6.2 Environmental precautions:** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. Avoid release to the environment. See Section 12 for additional Ecological Information.

#### 6.3. Methods and materials for containment and cleaning up

**6.3.1 For containment:** Cover drains. Prevent further leakage or spillage if safe to do so.

**6.3.2 For cleaning up:** Use personal protective equipment. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

**6.3.3 Other Information:** Clear spills immediately.

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**6.4 Reference to other sections:** See Section 12 for additional information.

**Section 7. Handling and Storage**

**7.1 Precautions for safe handling**

**Handling:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Avoid breathing vapors or mists. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Do not take internally. Wash thoroughly after handling.

**Hygiene measures:** When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. For environmental protection, remove and wash all contaminated protective equipment before re-use. Wear suitable gloves and eye/face protection.

**7.2 Conditions for safe storage including any incompatibilities:** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers.

**7.3 Specific end use(s)**

**Exposure scenario:** No information available.

**Other guidelines:** No information available

**Section 8. Exposure Controls / Personal Protection**

**8.1 Control parameters**

**Exposure limits:**

Component	Exposure Limits		
	ACGIH-TLV	NIOSH	OSHA-PELs
Alkylated phenolic polyamine	1ppm (4mg/m <sup>3</sup> ) (TWA)	-	-

**Derived no effect level:** No information available.

**Predicted No Effect Concentration (PNEC):** No information available.

**8.2 Exposure controls**

**8.2.1 Appropriate engineering controls:** Ensure adequate ventilation, especially in confined areas.

**8.2.2 Personal protective equipment**

**8.2.2.1 Eye and face protection:** Tightly fitting safety goggles. If splashes are likely to occur, wear: Face-shield.

**8.2.2.2 Skin and body protection:** Impervious clothing and impervious gloves.

**8.2.2.3 Respiratory protection:** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**8.3 Environmental exposure controls:** Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains

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**Section 9. Physical and Chemical Properties**

**9.1 Information on basic physical and chemical properties**

<b>Physical State:</b>	Liquid
<b>Appearance:</b>	Amber
<b>Odour:</b>	Pungent, amine
<b>Odour threshold:</b>	No data available

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks-Method</u></b>
<b>pH:</b>	Alkaline	None known
<b>Melting point range:</b>	No data available	None known
<b>Boiling point/boiling range:</b>	> 200 °C (> 392 °F)	None known
<b>Flash Point:</b>	107 °C (225 °F)	None known
<b>Evaporation rate:</b>	<1	None known
<b>Flammability (solid, gas):</b>	No data available	None known
<b>Upper/lower flammability or explosive limits:</b>	LEL: 2.2% UEL: 6.7%	DETA
<b>Vapour pressure:</b>	0.16 mmHg @ 20 °C	DETA
<b>Vapour density:</b>	3.56	None known
<b>Relative density:</b>	1.01 at 75 °F	Density Cup Method
<b>Solubilities:</b>	Insoluble in water	None known
<b>Partition coefficient (n-octanol/water):</b>	No data available	None known
<b>Auto-ignition temperature:</b>	No data available	None known
<b>Decomposition temperature:</b>	No data available	None known
<b>Viscosity:</b>	1,700 cPs at 70 °F	Rheometer Method
<b>Explosive properties:</b>	No data available	None known
<b>Oxidizing properties:</b>	No data available	None known

**9.2 Other information**

<b>VOC Content (%):</b>	No data available	None known
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**Section 10. Stability and Reactivity**

**10.1 Reactivity:** Reacts with epoxy

**10.2 Chemical stability:** Stable under normal conditions.

**10.3 Possibility of hazardous reactions:** None under normal processing.

**10.4 Conditions to avoid:** Excessive heat, light, air; material is hygroscopic.

**10.5 Incompatible materials:** Strong oxidizing agents. Strong acids. Bases. Copper. Copper alloys.

**10.6 Hazardous decomposition products:** In combustion emits fumes of carbon dioxide, carbon monoxide and oxides of nitrogen.

**Section 11. Toxicological Information**

**11.1 Information on toxicological effects:**



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**Numerical Measures of Toxicity:**

**Acute Oral Toxicity: LD50(rat):** 4,232 mg/kg (ATE)

**Acute Dermal Toxicity: LD50(rabbit):** 4,240 mg/kg

**Acute Inhalation Toxicity:** 10 – 20 mg/l (ATE)

**Skin corrosion irritation: Draize Test:** Corrosive

**Serious eye damage irritation: Draize test:** Severely irritating

**Skin sensitization (guinea pig):** Strong sensitizing potential

**Germ Cell Mutagenicity:** Negative results from in vitro and in vivo mammalian animal studies.

**Carcinogenicity:** Not classified as carcinogenic. Not listed by OSHA/NTP/IARC

**Reproductive Toxicity:** Not classified as reproductive toxin.

**Specific Target Organ Toxicity - single exposure (STOT-se):** Target organ: respiratory system: local irritation of the mucous membranes.

**Specific Target Organ Toxicity - repeated exposure (STOT-re):** Product not classified based on data available.

**Aspiration Hazard:** Alkaline material, possible aspiration hazard.

**Potential Health Effects:**

**Skin contact:** Causes skin burns; may cause sensitization by skin contact. There may be irritation and redness at the site of contact. Prolonged or repeated contact may cause dermatitis.

**Eye Contact:** May cause eye burns with corneal injury. There may be irritation and redness.

**Ingestion:** May be harmful if swallowed; may cause burns to the gastrointestinal tract. Nausea and stomach pain may occur. There may be vomiting, loss of consciousness, convulsions.

**Inhalation:** Causes respiratory tract irritation with possible burns. Exposure may cause coughing or wheezing; there may be congestion of the lungs causing severe shortness of breath. There may be loss of consciousness; convulsions may occur.

**Chronic Health Effects:** May cause target organ damage (respiratory). May cause an allergic skin reaction. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Section 12. Ecological Information**

**12.1 Ecotoxicity:**

**Acute / prolonged toxicity to fish LC50 (fish):** >100 mg/l (ATE)

**Acute / prolonged toxicity to aquatic invertebrates EC50 (daphnia magna):** >100 mg/l (ATE)

**Acute / prolonged toxicity to aquatic plants EC50 (Algae):** >100 mg/l (ATE)

**12.2 Persistence and degradability:** Not readily biodegradable.

**12.3 Bioaccumulative potential:** No data available

**12.4 Mobility in soil:** No data available

**12.5 Results of PBT and vPvB Assessment:** Product not classified as Persistent, bioaccumulative and toxic.

**12.6 German WGK classification:** WGK = 0 (self-assessment)

**12.7 Other adverse effects:** No information available.

**12.8 Additional information:** No other adverse effects are identified.

**Section 13. Disposal Considerations**

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**13.1 Waste treatment methods:**

**13.1.1 Product / Packaging disposal:** Dispose of in accordance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Waste codes / waste designation according to LoW:** According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

**13.1.2 Waste treatment-relevant information:** Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**13.1.3 Sewage disposal-relevant information:** This product should not be allowed to enter drains, water courses or the soil.

**13.1.4 Other disposal recommendations:** Dispose of waste and residues in accordance with local authority requirements.

**Section 14. Transport Information**

**DOT**

<b>14.1 UN number:</b>	UN 2735
<b>14.2 UN proper shipping name:</b>	Amines, liquid, corrosive, n.o.s.
<b>14.3 Transport hazard class:</b>	Class 8.
<b>14.4 Packing group:</b>	III
<b>14.6 Special precaution:</b>	None
<b>ERG No.</b>	153

**IMDG**

<b>14.1 UN number:</b>	UN 2735
<b>14.2 UN proper shipping name:</b>	Amines, liquid, corrosive, n.o.s.
<b>14.3 Transport hazard class:</b>	Class 8.
<b>14.4 Packing group:</b>	III
<b>14.5 Marine Pollutant:</b>	No
<b>14.6 EmS:</b>	F-A, S-A

**IATA**

<b>14.1 UN number:</b>	UN 2735
<b>14.2 UN proper shipping name:</b>	Amines, liquid, corrosive, n.o.s.
<b>14.3 Transport hazard class:</b>	Class 8.
<b>14.4 Packing group:</b>	III
<b>14.5 Special precaution:</b>	None
<b>EmS No:</b>	F-A, S-A

**Section 15. Regulatory Information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**



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**SARA Title III Section 311/312 (40CFR370):** Acute health hazard, chronic health hazard

**SARA Title III Section 313 (40CFR372):** No reportable components

**CERCLA Status (40CFR302):** No Reportable Quantity components

**RCRA Status (40CFR261):** Not listed

**TSCA Inventory Status:** Reported/included

**Canadian DSL Status:** Reported/included

**OSHA /NTP / IARC Carcinogen Status:** Not listed

**Canadian WHMIS Classification:** D2B, E

**Chemicals Known to the State of California to Cause Cancer or Reproductive Toxicity:** None known to be in the product at levels requiring a warning.

**REACH Annex XIV (SVHC):** No listed components

**REACH Annex XVII:** No listed components

**REACH Status (EC 1907/2006):** This material has been registered, pre-registered or is otherwise exempted from registration under the Registration, Evaluation and Authorization of Chemical Substances.

**15.2 Chemical Safety Assessment:** No chemical safety assessment has been carried out for this substance/mixture by the supplier.

### Section 16. Other Information

**HMIS:**

Health	3
Flammability:	1
Reactivity:	1

**Key Legend Information:**

N/A – Not Applicable

ND – Not Determined

OSHA – Occupational Safety and Health Administration

NIOSH – National Institute for Occupational Safety and Health

The information contained herein is based on the data available to us and is believed to be accurate. The data is offered in good faith as typical values and not as product specification. The information in this data sheet was compiled from information supplied by the vendors of the components of this compound. NRI makes no warranty either expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. The recommended industrial hygiene and safe handling procedures are believed to be genuinely applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate. NRI assumes no responsibility for injury from the use of the product described herein. The information is intended only to assist in the safe handling of this material.

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