

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** PermaRez 345 Membrane - Hardener/Side B  
**Version #** 1.0  
**Revision date** 20-Jun-2008  
**Company information** PolySpec  
 6614 Gant Road  
 Houston, TX 77066 US  
**Emergency** Chemtrec (800) 424-9300  
 International (703) 527-3887

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Nonylphenol	25154-52-3	< 40
1-(2-Aminoethyl) piperazine	140-31-8	< 20
Non-hazardous and other components below reportable levels		> 40
<b>Composition comments</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	

## 3. HAZARDS IDENTIFICATION

**Emergency overview** Causes skin and eye burns.  
**Potential short term health effects**  
**Eyes** This product causes eye burns. Risk of serious damage to eyes.  
**Skin** Causes skin burns.  
**Ingestion** Do not ingest. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

## 4. FIRST AID MEASURES

**First aid**  
**Eye contact** Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.  
**Skin contact** Get medical attention immediately. Remove and isolate contaminated clothing and shoes. Immediately flush skin with running water for at least 20 minutes. For minor skin contact, avoid spreading material on unaffected skin.  
**Inhalation** Get medical attention immediately. Move to fresh air. Do not use mouth-to-mouth method if victim inhaled the substance. Oxygen or artificial respiration if needed.  
**Ingestion** Do not induce vomiting without medical advice. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Do not use mouth-to-mouth method if victim ingested the substance. If material is ingested, immediately contact a physician or poison control center. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.  
**General advice** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Keep victim warm. In case of shortness of breath, give oxygen. Immediate medical attention is required.

## 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media** Small Fires:  
 Large Fires: Dry chemical, CO2, water spray or regular foam. Water spray, fog or regular foam.  
**Fire fighting equipment/instructions** Move containers from fire area if you can do it without risk. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. ALWAYS stay away from tanks engulfed in flame. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. Do not scatter spilled material with high pressure water streams.  
**Flash point** 274 °F (134.4 °C) Pensky-Martens Closed Cup

## 6. ACCIDENTAL RELEASE MEASURES

<b>Evacuation procedures</b>	Stay upwind. Keep out of low areas. Keep unnecessary personnel away.
<b>Containment procedures</b>	Prevent entry into waterways, sewers, basements or confined areas. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.
<b>Personal precautions</b>	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Keep people away from and upwind of spill/leak.
<b>Methods for cleaning up</b>	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dike far ahead of liquid spill for later disposal. Never return spills in original containers for re-use.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not get this material in your eyes, on your skin, or on your clothing. Do not handle or store near an open flame, heat or other sources of ignition. Surfaces may become slippery after spillage.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Do not freeze.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. In case of insufficient ventilation wear suitable respiratory equipment.
<b>Hand protection</b>	Protective gloves.
<b>Eye protection</b>	Wear chemical goggles. Face-shield.
<b>Skin and body protection</b>	Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Wear appropriate chemical resistant gloves. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Wear suitable protective clothing.
<b>General</b>	Structural firefighters protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Avoid contact with the skin and the eyes.
<b>Hygiene measures</b>	Avoid contact with the skin and the eyes. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice. When using do not smoke.

## 9. PHYSICAL & CHEMICAL PROPERTIES

<b>Density</b>	8.3966 lb/gal
<b>Form</b>	Liquid.
<b>Specific gravity</b>	1.008

## 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

<b>Stability</b>	Stable at normal conditions.
<b>Conditions to avoid</b>	Direct sources of heat.
<b>Hazardous polymerization</b>	Will not occur.
<b>Incompatibility</b>	Alcohols. Amides. Amines. Caustics. Cresol. Glycol. Isocyanates. Phenol. Strong acids. Strong oxidizing agents. Vinyl acetates. Will form explosive mixtures in air.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity** Causes burns.

### Component analysis - LD50

#### NIOSH - Selected LD50s and LC50s

1-(2-Aminoethyl) piperazine	140-31-8	Oral LD50 Rat: 2140 µL/kg; Dermal LD50 Rabbit: 880 µL/kg
Nonylphenol	25154-52-3	Oral LD50 Rat: 1620 mg/kg; Oral LD50 Mouse: 1231 mg/kg; Dermal LD50 Rabbit: 2140 µL/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Components of this product have been identified as having potential environmental concerns.

### Environmental effects

#### Ecotoxicity - Freshwater Algae Data

Nonylphenol 25154-52-3 96 Hr EC50 green algae (Selenastrum capricornutum): 0.41 mg/L

#### Ecotoxicity - Freshwater Fish Species Data

1-(2-Aminoethyl) piperazine 140-31-8 96 Hr LC50 fathead minnow: 2190 mg/L (flow-through)

Nonylphenol 25154-52-3 96 Hr LC50 fathead minnow: 0.14 mg/L (flow-through)

#### Ecotoxicity - Water Flea Data

Nonylphenol 25154-52-3 48 Hr EC50 water flea: 0.18 mg/L

## 13. DISPOSAL CONSIDERATIONS

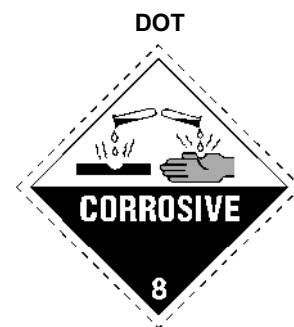
### Disposal instructions

Dispose in accordance with all applicable regulations. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

## 14. TRANSPORTATION INFORMATION

### Department of Transportation (DOT) Requirements

Proper shipping name	PAINT
Hazard class	8
Special provisions	B52, IB3, T4, TP1
Packaging exceptions	154
Packaging non bulk	173
Packaging bulk	241
Quantity limits passenger	5 L
Quantity limits cargo	60 L
Vessel stowage location	A
UN number	UN3066
Packaging group	III
Labels required	8
Marine pollutant	Yes
ERG number	153



### International Air Transport Association (IATA) Requirements

Proper shipping name	PAINT RELATED MATERIAL CORROSIVE
Hazard class	8
Special provisions	B52, IB3, T4, TP1
Packaging exceptions	154
Packaging non bulk	173
Packaging bulk	241
Quantity limits passenger	5 L
Quantity limits cargo	60 L
Vessel stowage location	A
UN number	UN3066
Packaging group	III
Labels required	8
Passenger Cargo Pkg Inst LQ	Y818 818
Packaging Instructions	820
Pkg Inst Cargo Only	



## International Maritime Dangerous Goods (IMDG) Code Requirements

Proper shipping name	PAINT
Hazard class	8
Special provisions	163,
Packaging exceptions	154
Packaging non bulk	173
Packaging bulk	241
Quantity limits passenger	5 L
Quantity limits cargo	60 L
Vessel stowage location	A
Item	C9
UN number	UN3066
Packaging group	III
Labels required	8
Hazard ID	80
Transport Category	3



**General** DOT Regulated Marine Pollutant.

## 15. REGULATORY INFORMATION

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.

### Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

1-(2-Aminoethyl) piperazine	140-31-8	205-411-0
Nonylphenol	25154-52-3	246-672-0

### Inventory - United States - Section 8(b) Inventory (TSCA)

1-(2-Aminoethyl) piperazine	140-31-8	Present
Nonylphenol	25154-52-3	Present

### Occupational safety and health administration (OSHA)

**29 CFR 1910.1200** Yes  
**hazardous chemical**

### CERCLA (superfund) reportable quantity

None

### Superfund amendments and reauthorization act of 1986 (SARA)

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**NFPA ratings** Health: 3  
Flammability: 1  
Instability: 0

### International regulations

#### Canada - WHMIS - Ingredient Disclosure List

1-(2-Aminoethyl) piperazine	140-31-8	1 % (English Item 68, French Item 213)
Nonylphenol	25154-52-3	1 % (English Item 1214, French Item 1276)

## State regulations

### Massachusetts - Right To Know List

1-(2-Aminoethyl) piperazine	140-31-8	Present
Nonylphenol	25154-52-3	Present

### New Jersey - Right to Know Hazardous Substance List

1-(2-Aminoethyl) piperazine	140-31-8	sn 0075
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### Pennsylvania - RTK (Right to Know) List

1-(2-Aminoethyl) piperazine	140-31-8	Present
Nonylphenol	25154-52-3	Present

## 16. OTHER INFORMATION

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

### Issue date

20-Jun-2008