

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	<b>PolySpec 100EX 100% Solid Epoxy Primer - Hardener/Side B</b>
<b>Version #</b>	1.0
<b>Revision date</b>	04-Mar-2009
<b>Company information</b>	PolySpec 6614 Gant Road Houston, TX 77066 US
<b>Emergency</b>	Chemtrec (800) 424-9300 International (703) 527-3887

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Ethylene diamine	107-15-3	< 2.5
N-aminoethyl piperazine	140-31-8	< 2.5
Phenol	108-95-2	< 2.5
Benzyl Alcohol	100-51-6	< 10
Isophorone diamine	2855-13-2	< 10
Non-hazardous and other components below reportable levels		> 80

**Composition comments** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

## 3. HAZARDS IDENTIFICATION

<b>Emergency overview</b>	May cause sensitization by inhalation. Irritating to respiratory system. Kidney injury may occur. Danger of serious damage to health by prolonged exposure. Toxic by inhalation, in contact with skin and if swallowed. May cause breathing disorders and lung damage. May cause liver damage. Causes skin and eye burns.
<b>Potential short term health effects</b>	
<b>Eyes</b>	Toxic in contact with eyes. This product causes eye burns. Risk of serious damage to eyes.
<b>Skin</b>	Toxic in contact with skin. Causes skin burns.
<b>Inhalation</b>	Toxic by inhalation. May cause breathing disorders and lung damage. Irritating to respiratory system. May cause sensitization by inhalation.
<b>Ingestion</b>	Toxic if swallowed. Do not ingest. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
<b>Target organs</b>	Eyes. Kidney. Liver. Respiratory system. Skin.
<b>Main symptoms</b>	Liver injury may occur. Kidney injury may occur.

## 4. FIRST AID MEASURES

<b>First aid</b>	
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.
<b>Skin contact</b>	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.
<b>Inhalation</b>	Call a physician or Poison Control Center immediately. Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately. If breathing is difficult, give oxygen. Get medical attention, if needed.
<b>Ingestion</b>	If material is ingested, immediately contact a physician or poison control center. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. 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.
<b>Notes to physician</b>	Symptoms may be delayed.

**General advice** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Immediate medical attention is required. Keep victim warm. In case of shortness of breath, give oxygen.

## 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media** Small Fires: Dry chemical, CO<sub>2</sub>, water spray or regular foam.  
Large Fires: Water spray, fog or regular foam.

**Fire fighting equipment/instructions** Move containers from fire area if you can do it without risk. Do not scatter spilled material with high pressure water streams. 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.

**Flash point** 210 °F (98.9 °C) Pensky-Martens Closed Cup

## 6. ACCIDENTAL RELEASE MEASURES

**Evacuation procedures** Ventilate closed spaces before entering. Avoid inhalation of vapor, fumes, dust and/or mist from the spilled material. Stay upwind. Keep out of low areas. Keep unnecessary personnel away.

**Containment procedures** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

**Personal precautions** Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Ensure adequate ventilation. Use personal protective equipment. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not contaminate water.

**Methods for cleaning up** Avoid dust formation. 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. Should not be released into the environment.

## 7. HANDLING AND STORAGE

**Handling** Do not breathe gas/fumes/vapor/spray. Do not get this material in your eyes, on your skin, or on your clothing. In case of insufficient ventilation wear suitable respiratory equipment. Do not handle or store near an open flame, heat or other sources of ignition. Surfaces may become slippery after spillage.

**Storage** Keep out of the reach of children. Keep in a cool, well-ventilated place. 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

### Exposure limits

#### ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Ethylene diamine	107-15-3	10 Ppm TWA
Phenol	108-95-2	5 Ppm TWA

#### ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

Ethylene diamine	107-15-3	irritation; asthma; sensitization
Phenol	108-95-2	Irritation; CNS; blood

#### OSHA - Final PELs - Skin Notations

Phenol	108-95-2	prevent or reduce skin absorption
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#### OSHA - Final PELs - Time Weighted Averages (TWAs)

Ethylene diamine	107-15-3	10 Ppm TWA; 25 mg/m <sup>3</sup> TWA
Phenol	108-95-2	5 Ppm TWA; 19 mg/m <sup>3</sup> TWA

### Personal protective equipment

**Respiratory protection** 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.

**Hand protection** Protective gloves.

**Eye protection** Wear chemical goggles. Face-shield.

**Skin and body protection** 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.

**General** 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.

**Engineering measures to reduce exposure** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

**Hygiene measures** Keep away from food and drink. Avoid contact with the skin and the eyes. Handle in accordance with good industrial hygiene and safety practice. When using do not smoke.

## 9. PHYSICAL & CHEMICAL PROPERTIES

**Density** 8.28 lb/gal

**Form** Liquid.

**Specific gravity** 0.9939

## 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

**Stability** Stable at normal conditions.

**Conditions to avoid** Direct sources of heat.

**Hazardous polymerization** Will not occur.

**Incompatibility** Amines. Caustics. Isocyanates. Strong oxidizing agents. Will form explosive mixtures in air.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity** Causes burns.

**Local effects** Toxic by inhalation, in contact with skin and if swallowed. Liver toxicity. Irritating to respiratory system.

### Component analysis - LD50

#### NIOSH - Selected LD50s and LC50s

Benzyl Alcohol	100-51-6	Oral LD50 Rat: 1230 mg/kg; Oral LD50 Mouse: 1360 mg/kg; Dermal LD50 Rabbit: 2 g/kg
Ethylene diamine	107-15-3	Oral LD50 Rat: 1200 mg/kg; Oral LD50 Mouse: 1 g/kg; Dermal LD50 Rabbit: 730 µL/kg
N-aminoethyl piperazine	140-31-8	Oral LD50 Rat: 2140 µL/kg; Dermal LD50 Rabbit: 880 µL/kg
Phenol	108-95-2	Oral LD50 Rat: 317 mg/kg; Oral LD50 Mouse: 270 mg/kg; Dermal LD50 Rabbit: 630 mg/kg

**Sensitization** May cause sensitization by inhalation.

### Carcinogenicity

#### ACGIH - Threshold Limits Values - Carcinogens

Ethylene diamine	107-15-3	A4 - Not Classifiable as a Human Carcinogen
Phenol	108-95-2	A4 - Not Classifiable as a Human Carcinogen

**Chronic toxicity** Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged or repeated exposure may cause lung injury.

**Subchronic toxicity** Kidney injury may occur.

**Further information** Symptoms may be delayed.

**Routes of exposure** Inhalation. Skin contact. Ingestion.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Components of this product are hazardous to aquatic life.

**Environmental effects** Harmful to aquatic life.

**Ecotoxicity - Freshwater Fish Species Data**

Benzyl Alcohol	100-51-6	96 Hr LC50 fathead minnow: 460 mg/L (Static);96 Hr LC50 bluegill: 10 mg/L (Static)
Ethylene diamine	107-15-3	96 Hr LC50 fathead minnow: 115.7 mg/L (Static);96 Hr LC50 rainbow trout (yearling):230 mg/L (Static)
N-aminoethyl piperazine	140-31-8	96 Hr LC50 fathead minnow: 2190 mg/L (flow-through)
Phenol	108-95-2	96 Hr LC50 fathead minnow: 24 mg/L (flow-through);96 Hr LC50 rainbow trout: 8.9 mg/L (flow-through);96 Hr LC50 bluegill: 23.88 mg/L (Static)

**Ecotoxicity - Microtox Data**

Benzyl Alcohol	100-51-6	5 Min EC50 Photobacterium phosphoreum: 63.7 mg/L; 15 min EC50 Photobacterium phosphoreum: 63.7 mg/L; 30 min EC50 Photobacterium phosphoreum: 71.4 mg/L
Ethylene diamine	107-15-3	15 Min EC50 Photobacterium phosphoreum: 20 mg/L
Phenol	108-95-2	5 Min EC50 Photobacterium phosphoreum: 28.8 mg/L; 15 min EC50 Photobacterium phosphoreum: 31.6 mg/L

**Ecotoxicity - Water Flea Data**

Benzyl Alcohol	100-51-6	48 Hr EC50 water flea: 23 mg/L
Ethylene diamine	107-15-3	48 Hr EC50 water flea: 0.88 mg/L
Phenol	108-95-2	48 Hr LC50 water flea: 23.0 mg/L

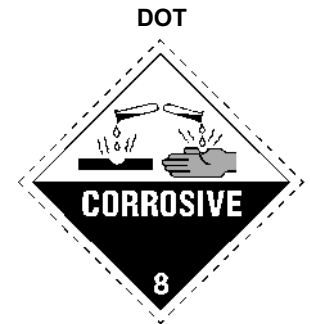
### 13. DISPOSAL CONSIDERATIONS

**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**

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



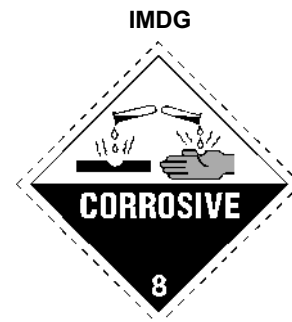
**International Air Transport Association (IATA) Requirements**

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



## 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



## 15. REGULATORY INFORMATION

### US federal regulations

#### CERCLA/SARA - Section 313 - Emission Reporting

Phenol 108-95-2 1.0 % de minimis concentration

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

Benzyl Alcohol	100-51-6	202-859-9
Ethylene diamine	107-15-3	203-468-6
Isophorone diamine	2855-13-2	220-666-8
N-aminoethyl piperazine	140-31-8	205-411-0
Phenol	108-95-2	203-632-7

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

Benzyl Alcohol	100-51-6	Present
Ethylene diamine	107-15-3	Present
Isophorone diamine	2855-13-2	Present
N-aminoethyl piperazine	140-31-8	Present
Phenol	108-95-2	Present

#### TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification

Phenol 108-95-2 Section 4

### 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 - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

### NFPA ratings

Health: 3  
Flammability: 1  
Instability: 0

## International regulations

### Canada - 2004 NPRI (National Pollutant Release Inventory)

Phenol	108-95-2	Part 1, Group 1 Substance
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### Canada - WHMIS - Ingredient Disclosure List

Benzyl Alcohol	100-51-6	1 % (English Item 169, French Item 170)
Ethylene diamine	107-15-3	0.1 % (English Item 713, French Item 859)
Isophorone diamine	2855-13-2	1 % (English Item 899, French Item 1048)
N-aminoethyl piperazine	140-31-8	1 % (English Item 68, French Item 213)
Phenol	108-95-2	1 % (English Item 1261, French Item 1374)

## State regulations

### Massachusetts - Right To Know List

Benzyl Alcohol	100-51-6	Present
Ethylene diamine	107-15-3	Extraordinarily hazardous
N-aminoethyl piperazine	140-31-8	Present
Phenol	108-95-2	Extraordinarily hazardous

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

Ethylene diamine	107-15-3	sn 0875
Isophorone diamine	2855-13-2	sn 1067
N-aminoethyl piperazine	140-31-8	sn 0075
Phenol	108-95-2	sn 1487

### Pennsylvania - RTK (Right to Know) List

Benzyl Alcohol	100-51-6	Present
Ethylene diamine	107-15-3	Environmental hazard
N-aminoethyl piperazine	140-31-8	Present
Phenol	108-95-2	Environmental hazard

## 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

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