

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	PermaRez 345S Crack-Bridging Saturant - Hardener/Side B
Version #	1.0
Revision date	11-Aug-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
Benzyl Alcohol	100-51-6	< 40
Triethylenetetramine	112-24-3	< 20
Non-hazardous and other components below reportable levels		> 40
Composition comments	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	

3. HAZARDS IDENTIFICATION

Emergency overview May cause sensitization by inhalation. Irritating to respiratory system. Toxic by inhalation, in contact with skin and if swallowed. Causes skin and eye burns.

Potential short term health effects

Eyes	Toxic in contact with eyes. This product causes eye burns. Risk of serious damage to eyes.
Skin	Toxic in contact with skin. Causes skin burns.
Inhalation	Toxic by inhalation. Irritating to respiratory system. May cause sensitization by inhalation.
Ingestion	Toxic if swallowed. 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	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.
Ingestion	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.
Notes to physician	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 Carbon dioxide (CO₂). Water Fog. Alcohol foam. Water spray. Polymer foam. Dry chemical powder.

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. Cool containers with flooding quantities of water until well after fire is out.
Specific methods	In the event of fire, cool tanks with water spray. Water mist may be used to cool closed containers.
Flash point	208 °F (97.8 °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. Use water spray to reduce vapors or divert vapor cloud drift.
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.
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. Large Spills: Wet down with water and dike for later disposal. After removal flush contaminated area thoroughly with water.

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

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.
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	8.7306 lb/gal
Form	Liquid.
Specific gravity	1.0477

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable at normal conditions.
Conditions to avoid	Direct sources of heat.

Hazardous polymerization Will not occur.
Incompatibility Acids. Alcohols. Amines. Caustics. Chlorinated hydrocarbons. Cresol. Glycol. Isocyanates. Phenol. Strong oxidizing agents. Vinyl acetates. 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. 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
Triethylenetetramine	112-24-3	Oral LD50 Rat: 2500 mg/kg; Oral LD50 Mouse: 1600 mg/kg; Dermal LD50 Rabbit: 805 mg/kg

Sensitization May cause sensitization by inhalation.

Routes of exposure Inhalation. Skin contact. Ingestion.

12. ECOLOGICAL INFORMATION

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

Environmental effects

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)

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

Ecotoxicity - Water Flea Data

Benzyl Alcohol 100-51-6 48 Hr EC50 water flea: 23 mg/L

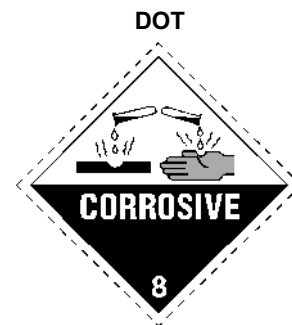
13. DISPOSAL CONSIDERATIONS

Disposal instructions 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. Dispose in accordance with all applicable regulations.

14. TRANSPORTATION INFORMATION

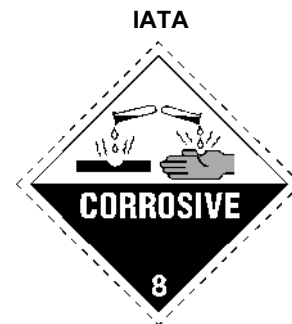
Department of Transportation (DOT) Requirements

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
ERG number	153



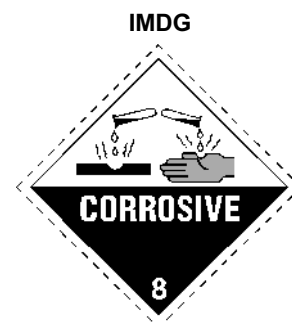
International Air Transport Association (IATA) Requirements

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



15. REGULATORY INFORMATION

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. CERCLA/SARA Hazardous Substances - Not applicable.

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

Benzyl Alcohol	100-51-6	202-859-9
Triethylenetetramine	112-24-3	203-950-6

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

Benzyl Alcohol	100-51-6	Present
Triethylenetetramine	112-24-3	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

Benzyl Alcohol	100-51-6	1 % (English Item 169, French Item 170)
Triethylenetetramine	112-24-3	0.1 % (English Item 1629, French Item 1669)

State regulations

Massachusetts - Right To Know List

Benzyl Alcohol	100-51-6	Present
Triethylenetetramine	112-24-3	Present

New Jersey - Right to Know Hazardous Substance List

Triethylenetetramine	112-24-3	sn 1908
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Pennsylvania - RTK (Right to Know) List

Benzyl Alcohol	100-51-6	Present
Triethylenetetramine	112-24-3	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

11-Aug-2008