

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** TuffRez 201CC Crystal Clear Epoxy - Resin/Side A  
**Version #** 1.0  
**Revision date** 19-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
Bisphenol-A-(Epichlorohydrin) polymer	25068-38-6	< 40
Triphenyl phosphate	115-86-6	< 10
Non-hazardous and other components below reportable levels		> 60
<b>Composition comments</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	

## 3. HAZARDS IDENTIFICATION

**Emergency overview** Irritating to eyes. May cause sensitization by skin contact. Irritating to skin.  
**Potential short term health effects**  
**Eyes** Causes eye irritation.  
**Skin** Blood disorder may occur after prolonged skin contact. Irritating to skin. May cause sensitization by skin contact.  
**Inhalation** Blood disorder may occur after prolonged inhalation. May cause irritation of respiratory tract.  
**Ingestion** Blood disorder may occur after ingestion. Do not ingest.  
**Target organs** Blood.

## 4. FIRST AID MEASURES

**First aid**  
**Eye contact** Immediately flush eyes with plenty of water for at least 20 minutes.  
**Skin contact** Remove and isolate contaminated clothing and shoes. If skin irritation persists, call a physician. Wash off immediately with plenty of water. Immediately flush skin with running water for at least 20 minutes.  
**Inhalation** Call a physician if symptoms develop or persist. If breathing is difficult, give oxygen.  
**Ingestion** Drink plenty of water. Do not induce vomiting without medical advice.  
**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. Take off contaminated clothing and shoes immediately. If you feel unwell, seek medical advice (show the label where possible).

## 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** 212 °F (100 °C)

## 6. ACCIDENTAL RELEASE MEASURES

<b>Evacuation procedures</b>	Stay upwind. Keep out of low areas. Keep unnecessary personnel away.
<b>Containment procedures</b>	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. 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 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.
<b>Methods for cleaning up</b>	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.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Wear personal protective equipment. Avoid contact with eyes. Do not get this material in contact with skin or eyes. 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 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)

Triphenyl phosphate 115-86-6 3 Mg/m3 TWA

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

Triphenyl phosphate 115-86-6 irritation; dermatitis

#### OSHA - Final PELs - Time Weighted Averages (TWAs)

Triphenyl phosphate 115-86-6 3 Mg/m3 TWA

### Personal protective equipment

**Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment. No personal respiratory protective equipment normally required.

**Hand protection** Protective gloves.

**Eye protection** Wear chemical goggles. Wear face-shield and protective suit for abnormal processing problems.

**Skin and body protection** Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves. Wear suitable protective clothing.

**General** 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** 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

<b>Density</b>	9.402 lbs/gal
<b>Form</b>	Liquid.
<b>Specific gravity</b>	1.128

## 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

<b>Stability</b>	Stable at normal conditions.
<b>Conditions to avoid</b>	Direct sources of heat.
<b>Incompatibility</b>	None known.

## 11. TOXICOLOGICAL INFORMATION

<b>Local effects</b>	Blood disorder may occur after ingestion. Irritating to eyes. Irritating to skin. May cause sensitization by skin contact.
----------------------	--

## Component analysis - LD50

### NIOSH - Selected LD50s and LC50s

Bisphenol-A-(Epichlorohydrin) polymer	25068-38-6	Oral LD50 Rat: 11400 mg/kg; Oral LD50 Mouse: 15600 mg/kg
Triphenyl phosphate	115-86-6	Oral LD50 Rat: 3500 mg/kg; Oral LD50 Mouse: 1320 mg/kg; Dermal LD50 Rabbit: >7900 mg/kg

**Sensitization** May cause sensitization by skin contact.

### Carcinogenicity

#### ACGIH - Threshold Limits Values - Carcinogens

Triphenyl phosphate	115-86-6	A4 - Not Classifiable as a Human Carcinogen
---------------------	----------	---

**Chronic toxicity** Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood.

**Subchronic toxicity** Blood disorder may occur after ingestion. Blood disorder may occur after prolonged inhalation. Blood disorder may occur after prolonged skin contact.

**Routes of exposure** Skin contact.

## 12. ECOLOGICAL INFORMATION

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

### Environmental effects

#### Ecotoxicity - Freshwater Algae Data

Triphenyl phosphate	115-86-6	96 Hr EC50 freshwater algae: 2.0 mg/L
---------------------	----------	---------------------------------------

#### Ecotoxicity - Freshwater Fish Species Data

Triphenyl phosphate	115-86-6	96 Hr LC50 rainbow trout: 0.3 mg/L; 96 Hr LC50 fathead minnow: 0.87 mg/L (flow-through); 96 Hr LC50 bluegill: 290.0 mg/L (Static)
---------------------	----------	---

#### Ecotoxicity - Water Flea Data

Triphenyl phosphate	115-86-6	48 Hr EC50 water flea: 1.0 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

Not regulated as dangerous goods.

### International Air Transport Association (IATA) Requirements

Not regulated as dangerous goods.

### International Maritime Dangerous Goods (IMDG) Code Requirements

Not regulated as dangerous goods.

**General** DOT Regulated Severe 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.

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

Triphenyl phosphate	115-86-6	204-112-2
---------------------	----------	-----------

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

Bisphenol-A-(Epichlorohydrin) polymer	25068-38-6	XU
Triphenyl phosphate	115-86-6	T

### Occupational safety and health administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** Yes

### 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: 2  
Flammability: 1  
Instability: 0

**International regulations**

**Canada - WHMIS - Ingredient Disclosure List**

Triphenyl phosphate 115-86-6 1 % (English Item 1653, French Item 1399)

**State regulations**

**Massachusetts - Right To Know List**

Triphenyl phosphate 115-86-6 Present

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

Triphenyl phosphate 115-86-6 sn 1951

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

Triphenyl phosphate 115-86-6 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**

19-Jun-2008