

1. PRODUCT AND COMPANY IDENTIFICATION

Product name TuffRez 211 Flexible Epoxy Coating - Hardener/Side B
Version # 1.0
Revision date 12-Aug-2009
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
M-Xylene-.alpha., .alpha.'-diamine	1477-55-0	< 2.5
Non-hazardous and other components below reportable levels		> 60
Composition comments	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	

3. HAZARDS IDENTIFICATION

Emergency overview Kidney injury may occur. Harmful in contact with eyes. Danger of serious damage to health by prolonged exposure. May cause breathing disorders and lung damage. May cause liver damage.

Potential short term health effects

- Eyes** Contact may irritate or burn eyes. Eye contact may result in corneal injury.
- Skin** Components of the product may be absorbed into the body through the skin.
- Inhalation** May cause breathing disorders and lung damage.
- Ingestion** Do not ingest. May be harmful if swallowed.

Target organs Eyes. Kidney. Liver. Respiratory system. Skin.

Main symptoms Liver injury may occur. Kidney injury may occur.

4. FIRST AID MEASURES

First aid

- Eye contact** Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention if irritation develops or persists.
- Skin contact** Remove and isolate contaminated clothing and shoes. Wash off immediately with plenty of water. If skin irritation persists, call a physician.
- Inhalation** If breathing is difficult, give oxygen. Move to fresh air. Get medical attention, if needed.
- Ingestion** Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Have victim rinse mouth thoroughly with water. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. If ingestion of a large amount does occur, seek medical attention.

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. If you feel unwell, seek medical advice (show the label where possible).

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Carbon dioxide (CO2). Alcohol foam. Water spray. Water Fog. 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	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	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	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 handle or store near an open flame, heat or other sources of ignition. Surfaces may become slippery after spillage.
Storage	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 - Ceilings (TLV-C)		
M-Xylene-.alpha., .alpha.'-diamine	1477-55-0	0.1 Mg/m3 Ceiling
ACGIH - Threshold Limits Values - TLV Basis - Critical Effects		
M-Xylene-.alpha., .alpha.'-diamine	1477-55-0	irritation; blood

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.
Eye protection	Wear chemical goggles.
Skin and body protection	Wear suitable protective clothing.
Hygiene measures	When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL & CHEMICAL PROPERTIES

Density	9.0797 lb/gal
Form	Liquid.
Specific gravity	1.09

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable at normal conditions.
Conditions to avoid	Direct sources of heat.
Incompatibility	Amines. Caustics. Isocyanates. Strong oxidizing agents. Will form explosive mixtures in air.

11. TOXICOLOGICAL INFORMATION

Local effects	Liver toxicity. Risk of serious damage to eyes. Components of the product may be absorbed into the body through the skin.
----------------------	---

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
M-Xylene-.alpha., .alpha.'-diamine	1477-55-0	Inhalation LC50 Rat: 700 ppm/1H; Oral LD50 Rat: 930 mg/kg; Dermal LD50 Rabbit: 2 g/kg

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.

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 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

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.

15. REGULATORY INFORMATION

US federal regulations

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

Benzyl Alcohol 100-51-6 202-859-9
M-Xylene-.alpha., .alpha.'-diamine 1477-55-0 216-032-5

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

Benzyl Alcohol 100-51-6 Present
M-Xylene-.alpha., .alpha.'-diamine 1477-55-0 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 - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

NFPA ratings

Health: 0
Flammability: 1
Instability: 0

International regulations**Canada - WHMIS - Ingredient Disclosure List**

Benzyl Alcohol	100-51-6	1 % (English Item 169, French Item 170)
M-Xylene-.alpha., .alpha.'-diamine	1477-55-0	1 % (English Item 1697, French Item 1725)

State regulations**Massachusetts - Right To Know List**

Benzyl Alcohol	100-51-6	Present
M-Xylene-.alpha., .alpha.'-diamine	1477-55-0	Present

New Jersey - Right to Know Hazardous Substance List

M-Xylene-.alpha., .alpha.'-diamine	1477-55-0	sn 1320
------------------------------------	-----------	---------

Pennsylvania - RTK (Right to Know) List

Benzyl Alcohol	100-51-6	Present
M-Xylene-.alpha., .alpha.'-diamine	1477-55-0	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

12-Aug-2009