

1. PRODUCT AND COMPANY IDENTIFICATION

Product name TuffRez 240 Chemical Resistant Liner - Hardener/Side B
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
Aluminum Silicate	1332-58-7	< 20
Phenol, nonyl	84852-15-3	< 20
Benzyl Alcohol	100-51-6	< 10
Ethyl benzene	100-41-4	< 1

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 Irritating to respiratory system. Danger of serious damage to health by prolonged exposure. May cause breathing disorders and lung damage. 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.
Inhalation May cause breathing disorders and lung damage. Irritating to respiratory system.
Ingestion Do not ingest. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

Target organs Respiratory system. Stomach.

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. If breathing is difficult, give oxygen. Get medical attention, if needed.
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	Small Fires: Dry chemical, CO ₂ , 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	365 °F (185 °C) Pensky-Martens Closed Cup

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures	Ventilate closed spaces before entering. 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	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.

7. HANDLING AND STORAGE

Handling	Do not get this material in your eyes, on your skin, or on your clothing. Do not breathe gas/fumes/vapor/spray. 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 - Short Term Exposure Limits (TLV-STEL)

Ethyl benzene	100-41-4	125 Ppm STEL
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ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Aluminum Silicate	1332-58-7	2 Mg/m ³ TWA (respirable fraction, particulate matter containing no asbestos and < 1% crystalline silica)
Ethyl benzene	100-41-4	100 Ppm TWA

ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

Aluminum Silicate	1332-58-7	pneumoconiosis
Ethyl benzene	100-41-4	Irritation; CNS

OSHA - Final PELs - Time Weighted Averages (TWAs)

Aluminum Silicate	1332-58-7	15 Mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)
Ethyl benzene	100-41-4	100 Ppm TWA; 435 mg/m ³ 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. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin and the eyes. When using do not smoke.

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

Acute toxicity	Causes burns.
Local effects	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
Ethyl benzene	100-41-4	Oral LD50 Rat: 3500 mg/kg; Dermal LD50 Rabbit: 17800 µL/kg
Phenol, nonyl	84852-15-3	Oral LD50 Rat: 1300 mg/kg

Carcinogenicity

ACGIH - Threshold Limits Values - Carcinogens

Aluminum Silicate	1332-58-7	A4 - Not Classifiable as a Human Carcinogen
Ethyl benzene	100-41-4	A3 - Confirmed animal carcinogen with unknown relevance to humans

Chronic toxicity	Prolonged or repeated exposure may cause lung injury.
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Routes of exposure	Inhalation.
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12. ECOLOGICAL INFORMATION

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.
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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)
Ethyl benzene	100-41-4	96 Hr LC50 rainbow trout: 14.0 mg/L (Static); 96 Hr LC50 fathead minnow: 9.09 mg/L (flow-through); 96 Hr LC50 bluegill: 150.0 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
Ethyl benzene	100-41-4	30 Min EC50 Photobacterium phosphoreum: 9.68 mg/L

Ecotoxicity - Water Flea Data

Benzyl Alcohol	100-51-6	48 Hr EC50 water flea: 23 mg/L
Ethyl benzene	100-41-4	48 Hr EC50 water flea: 2.1 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.
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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

CERCLA/SARA - Section 313 - Emission Reporting

Ethyl benzene 100-41-4 0.1 % de minimis concentration

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

Benzyl Alcohol 100-51-6 202-859-9
Ethyl benzene 100-41-4 202-849-4
Phenol, nonyl 84852-15-3 284-325-5

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

Aluminum Silicate 1332-58-7 XU
Benzyl Alcohol 100-51-6 Present
Ethyl benzene 100-41-4 T
Phenol, nonyl 84852-15-3 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 - 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)

Ethyl benzene 100-41-4 Part 1, Group 1 Substance

Canada - WHMIS - Ingredient Disclosure List

Benzyl Alcohol 100-51-6 1 % (English Item 169, French Item 170)
Ethyl benzene 100-41-4 0.1 % (English Item 697, French Item 854)

State regulations

California - Proposition 65 - Carcinogens List

Ethyl benzene 100-41-4 carcinogen, initial date 6/11/04

Massachusetts - Right To Know List

Aluminum Silicate 1332-58-7 Present
Benzyl Alcohol 100-51-6 Present
Ethyl benzene 100-41-4 Present

New Jersey - Right to Know Hazardous Substance List

Ethyl benzene 100-41-4 sn 0851

Pennsylvania - RTK (Right to Know) List

Aluminum Silicate 1332-58-7 Present
Benzyl Alcohol 100-51-6 Present
Ethyl benzene 100-41-4 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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