

1. PRODUCT AND COMPANY IDENTIFICATION

Product name TuffRez 235 Polyurethane Coating - Resin/Side A
Version # 1.0
Revision date 03-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
P-Chloro-a,a,a-trifluorotoluene	98-56-6	< 40
Propylene glycol monomethyl ether acetate	108-65-6	< 40
Xylenes (o-, m-, p- isomers)	1330-20-7	< 10
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 Highly flammable. Irritating to eyes. Irritating to skin. Irritating to respiratory system. May be ignited by heat, sparks or flames. Flammable/Combustible Material. Will be easily ignited by heat, spark or flames.

Potential short term health effects

Eyes Contact may irritate or burn eyes. Causes eye irritation.
Skin Irritating to skin.
Inhalation Irritating to respiratory system.
Ingestion Do not ingest.

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.
Inhalation Move to fresh air. If breathing is difficult, give oxygen.
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. Do not induce vomiting without medical advice. Drink plenty of water.

General advice Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

Unusual fire & explosion hazards Runoff to sewer may cause fire or explosion hazard. Containers may explode when heated. Vapor or gas may spread to distant ignition sources and flash back.
Hazardous combustion products Fire may produce irritating, corrosive and/or toxic gases.
Suitable extinguishing media Carbon dioxide (CO₂). 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. 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. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. ALWAYS stay away from tanks engulfed in flame. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Cool containers with flooding quantities of water until well after fire is out. In the event of fire, wear self contained breathing apparatus.
Specific methods	In the event of fire, cool tanks with water spray. Water mist may be used to cool closed containers.
Flash point	108 °F (42.2 °C) Pensky-Martens Closed Cup

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures	Keep unnecessary personnel away. Ventilate closed spaces before entering. Stay upwind. Keep out of low areas.
Containment procedures	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas. Dike the spilled material, where this is possible. 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.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
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. Avoid dust formation. Never return spills in original containers for re-use. Should not be released into the environment. 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. Do not breathe gas/fumes/vapor/spray. All equipment used when handling the product must be grounded. Wear personal protective equipment. Avoid contact with eyes. 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. The pressure in sealed containers can increase under the influence of heat. Keep away from heat and sources of ignition. Do not freeze.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

ACGIH - Threshold Limits Values - Short Term Exposure Limits (TLV-STEL)		
Xylenes (o-, m-, p- isomers)	1330-20-7	150 Ppm STEL
ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)		
Xylenes (o-, m-, p- isomers)	1330-20-7	100 Ppm TWA
ACGIH - Threshold Limits Values - TLV Basis - Critical Effects		
Xylenes (o-, m-, p- isomers)	1330-20-7	irritation
OSHA - Final PELs - Time Weighted Averages (TWAs)		
Xylenes (o-, m-, p- isomers)	1330-20-7	100 Ppm TWA; 435 mg/m3 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.
Hand protection	Protective gloves.
Eye protection	Wear chemical goggles.
Skin and body protection	Wear suitable protective clothing. Wear appropriate chemical resistant clothing.
General	Structural firefighters protective clothing will only provide limited protection. 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 When using do not smoke. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin and the eyes.

9. PHYSICAL & CHEMICAL PROPERTIES

Density	9.1876 lb/gal
Form	Liquid.
Specific gravity	1.1025

10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Risk of ignition.
Conditions to avoid	High temperatures. Direct sources of heat.
Hazardous polymerization	Will not occur.
Incompatibility	Strong acids. Will form explosive mixtures in air. This product is incompatible with nitrates.

11. TOXICOLOGICAL INFORMATION

Local effects Irritating to respiratory system. Irritating to eyes. Irritating to skin.

Component analysis - LD50

NIOSH - Selected LD50s and LC50s

P-Chloro-a,a,a-trifluorotoluene	98-56-6	Oral LD50 Rat: 13 g/kg; Oral LD50 Mouse: 11500 mg/kg
Propylene glycol monomethyl ether acetate	108-65-6	Oral LD50 Rat: 8532 mg/kg; Dermal LD50 Rabbit: >5 g/kg
Xylenes (o-, m-, p- isomers)	1330-20-7	Inhalation LC50 Rat: 5000 ppm/4H; Oral LD50 Rat: 4300 mg/kg; Dermal LD50 Rabbit: >1700 mg/kg

Carcinogenicity

ACGIH - Threshold Limits Values - Carcinogens

Xylenes (o-, m-, p- isomers)	1330-20-7	A4 - Not Classifiable as a Human Carcinogen
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Routes of exposure Inhalation. Skin contact.

12. ECOLOGICAL INFORMATION

Ecotoxicity Components of this product are hazardous to aquatic life.

Environmental effects Harmful to aquatic life.

Ecotoxicity - Freshwater Fish Species Data

Xylenes (o-, m-, p- isomers)	1330-20-7	96 Hr LC50 fathead minnow: 13.4 mg/L (flow-through); 96 Hr LC50 rainbow trout: 8.05 mg/L (flow-through); 96 Hr LC50 bluegill: 16.1 mg/L (flow-through)
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Ecotoxicity - Microtox Data

P-Chloro-a,a,a-trifluorotoluene	98-56-6	5 Min EC50 Photobacterium phosphoreum: 11.1 mg/L; 15 min EC50 Photobacterium phosphoreum: 13.4 mg/L; 30 min EC50 Photobacterium phosphoreum: 14.3 mg/L
Xylenes (o-, m-, p- isomers)	1330-20-7	24 Hr EC50 Photobacterium phosphoreum: 0.0084 mg/L

Ecotoxicity - Water Flea Data

Xylenes (o-, m-, p- isomers)	1330-20-7	48 Hr EC50 water flea: 3.82 mg/L
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13. DISPOSAL CONSIDERATIONS

Waste codes D001: Waste Flammable material with a flash point <140 F

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. If discarded, this product is considered a RCRA ignitable waste, D001. Incinerate the material under controlled conditions in an approved incinerator. Dispose of this material and its container at hazardous or special waste collection point.

14. TRANSPORTATION INFORMATION

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

ERG number	128
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International Air Transport Association (IATA) Requirements

Proper shipping name	PAINT RELATED MATERIAL
Hazard class	3
Special provisions	B1, B52, IB3, T2, TP1
Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242
Quantity limits passenger	60 L
Quantity limits cargo	220 L
Vessel stowage location	A
UN number	UN1263
Packaging group	III
Labels required	3
Passenger Cargo Pkg Inst	Y309
LQ	309
Packaging Instructions	310
Pkg Inst Cargo Only	

IATA



International Maritime Dangerous Goods (IMDG) Code Requirements

Not regulated as dangerous goods.

15. REGULATORY INFORMATION

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA - Section 313 - Emission Reporting

Xylenes (o-, m-, p- isomers) 1330-20-7 1.0 % de minimis concentration

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

P-Chloro-a,a,a-trifluorotoluene 98-56-6 202-681-1

Propylene glycol monomethyl ether acetate 108-65-6 203-603-9

Xylenes (o-, m-, p- isomers) 1330-20-7 215-535-7

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

P-Chloro-a,a,a-trifluorotoluene 98-56-6 Present

Propylene glycol monomethyl ether acetate 108-65-6 P

Xylenes (o-, m-, p- isomers) 1330-20-7 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 - Yes
Pressure Hazard - No
Reactivity Hazard - No

NFPA ratings

Health: 2
Flammability: 2
Instability: 0

International regulations

Canada - 2004 NPRI (National Pollutant Release Inventory)

Xylenes (o-, m-, p- isomers) 1330-20-7 Part 1, Group 1 Substance; Part 5 Substance

State regulations

Massachusetts - Right To Know List

Xylenes (o-, m-, p- isomers) 1330-20-7 Present

New Jersey - Right to Know Hazardous Substance List

Xylenes (o-, m-, p- isomers) 1330-20-7 sn 2014

Pennsylvania - RTK (Right to Know) List

P-Chloro-a,a,a-trifluorotoluene 98-56-6 environmental hazard

Xylenes (o-, m-, p- isomers) 1330-20-7 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

03-Jun-2008