

1. PRODUCT AND COMPANY IDENTIFICATION

Product name TuffRez 233AR Polyurethane Coating Abrasion Resistant - Resin/Side A
Version # 2.0
Revision date 20-Nov-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

Non-hazardous component(s)	CAS #	Percent
Hexamethylene diisocyanate homopolymer	28182-81-2	99.9498 - 99.9498
Hexamethylene diisocyanate	822-06-0	0.0502 - 0.0502
Composition comments	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	

3. HAZARDS IDENTIFICATION

Emergency overview Health injuries are not known or expected under normal use.

Potential short term health effects

Eyes Contact with eyes may cause irritation.
Skin Not expected to be a primary skin irritant.
Inhalation May cause irritation of respiratory tract.
Ingestion Do not ingest. May be harmful if swallowed.

4. FIRST AID MEASURES

First aid

Eye contact Flush eyes with water as a precaution. If irritation persists get medical attention.
Skin contact Rinse with water. Get medical attention if irritation develops or persists.
Inhalation Call a physician if symptoms develop or persist. If breathing is difficult, give oxygen.
Ingestion 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.

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

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Dry chemical (preferred), foam. Carbon dioxide (CO₂). Dry chemical. 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 385 °F (196.1 °C) Pensky-Martens Closed Cup

6. ACCIDENTAL RELEASE MEASURES

Evacuation procedures Keep unnecessary personnel away.
Containment procedures Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.
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. Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling	Do not handle or store near an open flame, heat or other sources of ignition. Handle and open container with care. 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. Use care in handling/storage. Do not freeze.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Hexamethylene diisocyanate	822-06-0	0.005 Ppm TWA
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ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

Hexamethylene diisocyanate	822-06-0	irritation; sensitization
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Personal protective equipment

Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment. No personal respiratory protective equipment normally required.
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Eye protection	Avoid contact with eyes.
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Skin and body protection	Wear suitable protective clothing.
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General	Wear suitable protective equipment.
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Engineering measures to reduce exposure	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
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Hygiene measures	When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.
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9. PHYSICAL & CHEMICAL PROPERTIES

Density	9.337 lb/gal
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Form	Liquid.
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Specific gravity	1.12
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Vapor density	8.5
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10. CHEMICAL STABILITY & REACTIVITY INFORMATION

Stability	Stable at normal conditions.
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Conditions to avoid	Direct sources of heat.
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Hazardous polymerization	Will not occur.
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Incompatibility	None known.
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11. TOXICOLOGICAL INFORMATION

Component analysis - LD50

NIOSH - Selected LD50s and LC50s

Hexamethylene diisocyanate	822-06-0	Oral LD50 Rat: 710 µL/kg; Oral LD50 Mouse: 350 mg/kg; Dermal LD50 Rabbit: 570 µL/kg
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Hexamethylene diisocyanate homopolymer	28182-81-2	Inhalation LC50 Rat: 18500 mg/m ³ /1H
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Further information	This product has no known adverse effect on human health.
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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 - Microtox Data

Hexamethylene diisocyanate	822-06-0	5 Min EC50 Photobacterium phosphoreum: 53.2 mg/L; 15 min EC50 Photobacterium phosphoreum: 25.5 mg/L; 30 min EC50 Photobacterium phosphoreum: 15.7 mg/L
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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.

ERG number 153

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

Hexamethylene diisocyanate 822-06-0 1.0 % De minimis concentration (Listed under 'Diisocyanates')

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

Hexamethylene diisocyanate 822-06-0 212-485-8

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

Hexamethylene diisocyanate 822-06-0 Present

Hexamethylene diisocyanate homopolymer 28182-81-2 XU

TSCA (Toxic Substances Control Act) - Section 12(b) - Export Notification

Hexamethylene diisocyanate 822-06-0 Section 4

Occupational safety and health administration (OSHA)

29 CFR 1910.1200 No

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 No

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

NFPA ratings

Health: 0
Flammability: 1
Instability: 0

International regulations

Canada - WHMIS - Ingredient Disclosure List

Hexamethylene diisocyanate 822-06-0 0.1 % (English Item 824, French Item 960)

State regulations

Massachusetts - Right To Know List

Hexamethylene diisocyanate 822-06-0 Present

New Jersey - Right to Know Hazardous Substance List

Hexamethylene diisocyanate 822-06-0 sn 0995

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.

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20-Nov-2009