

SAFETY DATA SHEET

Quantum Technical Services Ltd.

Section 1. Product and Company Identification

Product Name **PRECIDIUM™ MTI FR Membrane Resin**
PRECIDIUM™ brand name is a trademark of Quantum Chemical, and is being used with permission.

Manufacturer Quantum Technical Services Ltd. (Dba Quantum Chemical)
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Chemical Emergencies For 24-Hour Emergency call Canutec at 613.996.6666

Section 2. Hazards Identification

2.1 Classification

OSHA Regulatory Status: This material is considered hazardous by the 2012 OSHA Hazard Communication Standard (CFR 1910.1200)

WHMIS **D1B** Materials causing immediate and serious toxic effects – Toxic Material
E Corrosive Material

2.2 Label Elements:

Pictogram:



Signal Word:

Hazard Statements:

Warning

H301 Toxic if swallowed.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H372 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.
H290 May be corrosive to metals.

Precautionary Statements:

P264 Wash face, hands and any exposed skin thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P284 [In case of inadequate ventilation] wear respiratory protection.
P273 Avoid release to the environment.

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|------------------|----------------------------------|---|
| Response: | P314 | Get medical advice/attention if you feel unwell. |
| | P305 + P351 + P338 + P313 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical advice/attention. |
| | P302 + P350 | IF ON SKIN: Gently wash with plenty of soap and water. |
| | P332 + P313 | If skin irritation occurs: Get medical advice/attention. |
| | P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| | S64/ P301 + P310 + P331 | IF SWALLOWED: Rinse mouth with water (only if person is conscious). Drink plenty of water. Do NOT induce vomiting. Immediately call a POISON CENTRE/doctor. |
| Storage: | P233 | Keep container tightly closed. |
| Disposal: | P501 | Dispose of contents/containers in accordance with local /regional/national international regulations. |

Section 3. Composition and Ingredient Information

| Hazardous Ingredients | % | T.L.V. | C.A.S. # | LD/50, | Route, Species |
|---|-------|--------|------------|-----------|----------------|
| Poly (oxy(methyl-1,2-Ethanediy)), alpha-(2-Aminomethylethyl)omega- (2-aminomethylethoxy) –diamine | 35-55 | N/D | 9046-10-0 | 480mg/Kg | oral, rat |
| Benzenediamine,ar,ar,-diethyl-ar-methyl- | 0-20 | | 68479-98-1 | 738 mg/kg | oral, rat |
| Ammonium Polyphosphate | 0-20 | N/A | 68333-79-9 | | |

Section 4. First Aid Measures

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| Eye Contact | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Obtain immediate medical attention. |
| Skin Contact | In case of contact, immediately flush skin with plenty of soap and water. Remove contaminated clothing. Wash clothing before reuse. Obtain immediate medical attention. |
| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention. |
| Ingestion | If ingested, rinse out mouth; dilute with water. Consult a physician. Do not induce vomiting. Never give anything by mouth to an unconscious person. |

Section 5. Fire Fighting Measures

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| Flash Point | 234°C (CC) |
| Auto Ignition Temperature (C) | 330°C |
| Upper Explosive Limit | Not available. |
| Lower Explosive Limit | Not available. |
| Extinguishing Media | Water fog. Use flooding amounts of water in early stages of fire. |
| Unusual hazards | Not applicable. |
| Sensitivity to Mechanical Impact | Not expected to be sensitive to mechanical impact. |
| Sensitivity to Static Discharge | Not expected to be sensitive to static discharge. |
| Special Fire Fighting Procedures | Cool fire-exposed containers with water spray. Heat will cause pressure buildup and may cause explosive rupture. Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. |

Section 6. Accidental Release Measures

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| Leak/Spill | Spills should be contained, solidified, and placed in suitable containers for disposal in a licensed facility. Wear respiratory protection and protective clothing. Provide adequate ventilation. This product is an alkaline. Before discharging sewage into treatment plants neutralization is generally required. It can be mechanically removed from water due to insolubility. |
|------------|---|

Section 7. Handling and Storage

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| Handling Procedures | Avoid skin and eye contact. Avoid breathing fumes. Remove contaminated clothing before reuse. Maintain good personal hygiene. |
| Storage Needs | Store in a cool and dry place, for product integrity. Store in tightly sealed container and protect from moisture and foreign materials. Keep container closed when not in use. |

Section 8. Exposure Controls and Personal Protection.

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| Protective equipment | |
| Eye/Type | Liquid chemical goggles. Contact lenses should not be worn. |
| Respiratory/Type | At least an air-purifying respirator equipped with an organic vapor cartridge and particulate pre-filters must be worn. |
| Gloves/Type | Rubber or plastic gloves. Butyl rubber gloves. Nitrile rubber; a barrier cream. Practice good hygiene; wash thoroughly before handling any food. |
| Clothing/Type | Wear adequate protective clothes. |
| Other/Type | Eyewash fountain. Emergency shower should be in close proximity. |
| Ventilation Requirements | Ventilate adequately. |

Section 9. Physical and Chemical Properties

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|------------------------|-------------------|
| Physical State | Liquid |
| Odor | Amine |
| Specific Gravity | approximately 1.1 |
| Odor Threshold(ppm) | Not applicable |
| Vapor Pressure (mm Hg) | 0.9 @ 234°C |
| Vapor Density (Air=1) | >1 |
| Evaporation Rate | Non volatile |
| Boiling Point | 250°C |
| pH | 10-11 |
| Solubility in water | 1% |
| Freezing Point (°C) | -29°C |

Section 10. Stability and Reactivity

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| Incompatibility | Acids, isocyanates and oxidizing agents. |
| Reactivity Conditions | See "incompatibility". |
| Hazardous products of Decomposition | Carbon Monoxide/Dioxide. NOx |

Section 11. Toxicological Information

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|----------------------------|---------------|
| Acute Oral Toxicity (LD50) | 900 mg/Kg Rat |
| Irritancy of material | Irritant |
| Sensitizing Capability of | |

| | |
|-----------------------------|--------------------------------|
| Material | Not available |
| Carcinogenicity of Material | Not classified as carcinogenic |
| Teratogenicity | Not available |
| Mutanagenity | Not available |
| Reproductive Effects | Not available |
| Synergistic Materials | None known |

Section 12. Ecological Information

Aquatic Toxicity:

Benzenediamine,ar,ar,-diethyl-ar-methyl

Freshwater Fish LC50 (48hr) 200 mg/l

Freshwater Algae EC10/72 hr 54 mg/l

Water Flea LC50 (48 hr) 0.5 mg/l

Poly (oxy(methyl-1,2-Ethanedyl)), alpha-(2-Aminomethylethyl)omega- (2-aminomethylethoxy) –diamine

Fish *Leuciscus idius* LC50 (96 hr) >220 - <460 mg/l

Daphnia Magna EC50 (48hr) 15 mg/l

Persistence/Degradability

Poorly Biodegradable

Bioaccumulation

Accumulation in organisms is not expected

Due to the pH-value of the product, neutralization is generally required before discharging sewage into treatment plants. Do not release untreated into natural waters.

Section 13. Disposal Considerations

Waste Disposal

In accordance with municipal, provincial and federal regulations. Empty containers must be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torch.

Section 14. Transport Information

T.D.G. Classification

Amine, liquid, corrosive, N.O.S., Class 8, UN2735, Packing Group III

Section 15. Regulatory Information

WHMIS Classification

Class D, Division 1, Subdivision B (Toxic), Class E (Corrosive)

Section 16. Other Information

Revision Date

August 15, 2017

Note

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