

# Material Safety Data Sheet



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## EMERGENCY CONTACTS

FOR CHEMICAL EMERGENCIES (24 HOUR) INVOLVING TRANSPORTATION, SPILL, LEAK, RELEASE, FIRE OR ACCIDENTS: IN THE U.S. OR CANADA CALL CHEMTREC (800) 424-9300.

## SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **MIEX<sup>®</sup> DOC Resin**  
MSDS Number: OW-0101    Date Issued: February 26, 2003    Date Revised: December 29, 2008

Product Use: Ion exchange resin for use in the MIEX DOC Process for water treatment

## SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

NON HAZARDOUS INGREDIENT (S)	% (v/v)	ACGIH TWA	CAS NO.
Polymeric Quaternary ammonium compound	> 60 %	Not listed	398140-29-9
Water	< 40%	Not listed	7732-18-5

## SECTION 3 - HAZARD IDENTIFICATION

**Emergency Overview:** No significant hazards are known or expected with this product under normal conditions of industrial use.

## SECTION 4 - FIRST AID MEASURES

**General:** None

**Inhalation:** Not a likely route of exposure under normal conditions of use. Seek medical attention if symptoms appear.

**Skin Contact:** Wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before reuse. If irritation occurs, seek medical advice.

**Eye Contact:** Rinse eyes with copious amounts of clean water for 15 minutes. Seek medical attention.

**Ingestion:** Rinse mouth with water. Do not induce vomiting. Seek medical advice.

**Note to Physicians:** Treat symptomatically.

## SECTION 5 - FIRE-FIGHTING MEASURES

**Flash Point:** Not applicable

**Flammable Limits (Lower):** Not applicable

**Flammable Limits (Upper):** Not applicable

**Auto Ignition Temperature:** Not applicable

**Decomposition Temperature:** >280°C

**Rate of Burning:** Not applicable

**Hazardous Reactions:** An exothermic reaction can occur if resin is contacted with concentrated nitric acid.

**Fire and Explosion Hazards:** None known or expected. This is not a flammable material

**Extinguishing Media:** Water jet, fog or spray, dry agent (Carbon Dioxide, dry chemical powder)

**Fire Fighting Procedures:** On ignition, resin will emit toxic fumes.

**Fire Fighting Protective Equipment:** Fire fighters should wear self-contained breathing apparatus in the event that there is a risk of exposure to combustion products

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**Spills, Leaks, or Releases:** Slippery when spilled; to avoid accidents, clean up immediately. Wear suitable clothing to prevent skin contamination. Collect and seal in properly labeled containers. If risk of dust inhalation exists, wear suitable mist respirator meeting the requirements of OSHA Standard 29 CFR 1910.

**Deactivating Chemicals:** Not applicable.

## **SECTION 7 - HANDLING AND STORAGE**

**Handling:** No special precautions required. Ensure Personal Protective Equipment (PPE) worn when handling resin.

**Storage Requirements:** Store away from direct sunlight. Ensure the resin (solids) is not allowed to dry out during storage.

**Storage Temperature:** Store under dry and temperate conditions to prevent freezing. Ensure temperature is in the range of 0°C-50°C during storage and transport.

## **SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**PREVENTIVE MEASURES:** Ensure Personal Protective Equipment (PPE) is worn when handling resin. Ensure goggles and mist respirators (refer to section 6) are worn if there is a risk of dried resin inhalation.

### **PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Safety glasses are recommended.

**Skin Protection:** Wear gloves that are found to be impervious under conditions of use.

**Respiratory Protection:** None required under normal conditions of handling and use.

**Engineering Controls:** Natural ventilation should be adequate for storage, handling and use of this material. Keep containers closed when not in use.

### **EXPOSURE GUIDELINES:**

#### **PRODUCT:**

None established for the product.

#### **HAZARDOUS INGREDIENT(S):**

The ingredients of this product are bound in a polymeric form suspended in water and as such, exposure by inhalation is not a concern.

## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Alternate Name(s):** Not applicable

**Chemical Name:** Not applicable

**Chemical Family:** Polymeric quaternary ammonium compound in suspension

**Molecular Formula:** Not available

**Appearance:** Fully mixed-thick brown slurry. Unmixed-majority of the volume is brown settled material with the remaining volume being clear to opaque water supernatant.

**pH:** 4 - 7

**Vapor Pressure (mm Hg at 20°C/68°F):** Not applicable

**Vapor Density (Air=1):** Not applicable

**Boiling Point:** As water

**Melting Point:** >662°F for solids only

**Flash Point (°C):** Not applicable

**Decomposition Point (°C):** >280 (solids only)

**Solubility (Water):** Solids are insoluble in water.

**Solubility (Other):** Not available.

**Specific Gravity:** 1.2

**Evaporation Rate:** Not applicable

**Additional Properties:** None

## **SECTION 10 - STABILITY AND REACTIVITY**

**Hazardous Decomposition Products:** Oxides of Carbon and Nitrogen

**Chemical Stability:** Stable.

**Conditions to Avoid:** No information available.

**Incompatibility with other Substances:** Incompatible with concentrated nitric acid, and high concentrations (>0.1wt%) of strong oxidizing agents.

**Hazardous Polymerization:** Will not polymerize.

**Stability:** Incompatible with concentrated nitric acid and high concentrations (>0.1wt%) of strong oxidizing agents. Contact of resin with oxidizing agents may lead to slight resin degradation or more exothermic reaction occurring.

## **SECTION 11 - TOXICOLOGICAL INFORMATION**

**Summary:** No adverse health effects are expected if this product is handled in accordance with established procedures.

### **TOXICOLOGICAL DATA:**

#### **PRODUCT:**

None established for the product

#### **INGREDIENTS:**

The primary ingredients of this product are not considered toxic under normal conditions of use. No testing has been done specifically on the beads.

#### **POTENTIAL HEALTH EFFECTS:**

**Inhalation:** Not expected to be a route of exposure under normal conditions of use. Dust from dried material may cause mechanical irritation.

**Skin Contact:** Not expected to be a skin irritant.

**Eye Contact:** Product may cause physical irritation.

**Ingestion:** No adverse effects expected.

**Subchronic Effects:** None known.

**Chronic Effects:** None known.

**Carcinogenicity:** The ingredients of this suspension are not listed as carcinogens. No carcinogenic potential is expected.

**Reproductive Effects:** No information is available. No reproductive effects are expected.

**Teratogenicity and Ferotoxicity:** No information is available. No effects are expected.

**Synergistic Materials:** None known.

## **SECTION 12 - ECOLOGICAL INFORMATION**

Avoid contaminating waterways.

**Ecotoxicological Information:** Non hazardous.

**Environmental Effects:** None known or expected.

## **SECTION 13 - DISPOSAL CONSIDERATIONS**

Refer to local, state, provincial and federal regulations for specific guidance. Product is normally acceptable for secure landfill.

## **SECTION 14 - TRANSPORT INFORMATION**

**TDG Name:** Not regulated

**TDG Class/Division:** Not regulated

**Proper Shipping Name:** Not regulated.

**Product Identification Number (PIN):** None

**Packing Group:** Not applicable

**Transportation Emergency Telephone Number:** IN THE US CALL CHEMTREC (800) 424-9300.  
IN CANADA CALL CHEMTREC (800) 424-9300.

## **SECTION 15 - REGULATORY INFORMATION**

### **USA CLASSIFICATION:**

**OSHA Classification:** Non hazardous

**Physical:** Irritant

**Health:** Non hazardous

**Target Organ:** None

### **SARA Regulations Sections 313 and OSHA Standard 40 CFR 372:**

**Ozone Protection and OSHA Standard 40 CFR 42:** This product does not contain, nor is it manufactured using any materials that are harmful to the ozone.

## **SECTION 16 - OTHER INFORMATION**

### **REFERENCES:**

RTECS-Registry of Toxic Effects of Chemical Substances, CCINFODisc, National Institute for Occupational Safety and Health, US Dept. of Health & Human Services, Cincinnati, Cheminfo, Supplier Material Safety Data Sheets.

**Prepared by: Safety, Health and Environment (Canada) - (905) 405-5617.**

**Revised by: Safety, Health and Environment (US) - (303) 268-5000.**

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