

**HAMILTON COMPANY**

4970 Energy Way  
Reno, Nevada 89502

**MATERIAL SAFETY DATA SHEET**

Date Prepared: September 30, 2004  
Total Number of Pages: 2

Phone Number (7:00am-3:30pm, Pacific Time): 800-648-5950 or 775-858-3000

Emergency Phone (24 hours): CHEMTREC: 1-800-424-9300; Outside U.S. 1-202-483-7616

Abbreviations: n/a, not available or applicable; n/d, not or none determined

**SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION**

Components	CAS #	wt%	OSHA PEL-TWA	ACGIH TLV-TWA	STEL (OSHA & ACGIH)	Odor
Poly(styrene-divinyl-benzene) with Trimethyl Ammonium Exchanger	not assigned	100	n/d	n/d	n/d	n/d

This MSDS is for a range of products, all of which contain RCX-30 resin that is dry. These products can be packaged in any volume (cc) or weight (g), and can contain resin having an average particle size from 5 to 20µm. Refer to the product label for actual resin volume and particle size.

CAS# - Chemical Abstract Service number

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

TWA - Time-Weighted (8 hour) Average (value to which workers can be exposed for a normal 8-hr day, 40-hr week without ill effects)

TLV - Threshold Limit Value

STEL - Short-Term (15 minute) Exposure Limit

**SECTION 2 - PHYSICAL / CHEMICAL CHARACTERISTICS**

Appearance: Light brown cake

Odor: Practically Odorless

Melting Point: n/d for polymer

Specific Gravity: 1.1 for polymer

Boiling Point: n/d for polymer

Vapor Density: Not Volatile

Vapor Pressure: n/d

Evaporation rate: n/d

Solubility in water: polymer is insoluble

Water reactivity: none

The polymer is not volatile.

Product is hydrophobic; to prepare an aqueous slurry, add water slowly while mixing.

Product is made of small diameter particles, up to 20µm (refer to product label for actual particle size).

**SECTION 3 - FIRE AND EXPLOSION HAZARD DATA**

Material is combustible when exposed to heat or flame, especially if particles are airborne.

Flash Point: n/d

Auto-Ignition Temperature: n/d

Flammability Limits in Air: n/d

Extinguisher Media: Foam, CO<sub>2</sub>, dry chemical

Special Fire Fighting Procedures: Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.

Unusual Fire and Explosion Hazards: None

**SECTION 4 - REACTIVITY HAZARD DATA**

Material is stable. Hazardous polymerization will not occur.

Conditions to avoid: n/d

Materials to avoid: Concentrated nitric acid or other strong oxidizing agents

Hazardous Decomposition Products: n/d

#### SECTION 5 - HEALTH HAZARD DATA

Primary exposure routes: Ingestion, inhalation, eye and skin contact

Carcinogens: Not listed

Health Hazards of polymer: If 5-10 $\mu$ m particles are inhaled, they may reach the alveolar region of the lungs and deposit there. To the best of our knowledge, the health effects of this product has not been thoroughly studied.

Signs and Symptoms of Overexposure: Skin or eye irritation; coughing or throat irritation if inhaled

Medical Conditions Generally Aggravated by Exposure: Chronic respiratory or skin disorders

EMERGENCY FIRST AID PROCEDURES - Seek medical attention for further treatment or observation if necessary.

Eye Contact: Flush with copious amounts of water for 15 minutes.

Skin Contact: Wash thoroughly with soap and water.

Inhalation: Remove to fresh air.

Ingestion: Induce vomiting; consult a physician.

#### SECTION 6 - CONTROL AND PROTECTIVE MEASURES

Respiratory Protection: Normal ventilation

Protective Gloves: Thin latex gloves may be used to eliminate skin exposure.

Eye Protection: Wear safety glasses.

Other Protective Clothing and Equipment: A dust mask may be worn to prevent inhalation of airborne particles.

Hygienic Work Practices: Keep away from food.

#### SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Handling Information and Recommendations: The polymer, if dry, is susceptible to static charging and to dispersement in air. To avoid these conditions and for easier handling, Keep the material wet with acetone, water or other liquid.

Steps to be Taken if Material is Spilled or Released: Avoid dispersing the dry resin particles into the air. If material is spilled on the floor, it can be slippery. Clean up with soap and water; rinse area with water.

Waste Disposal: According to local, state, and federal regulations

Storage Recommendation: Keep container closed and in a cool, dry place. The product can be made safer by storing the polymer in a liquid that is less flammable and less toxic than acetone. If the resin is stored in an aqueous slurry, however, add a microbial-growth inhibitor (such as some methanol, acetonitrile, acetone, or dilute sodium azide solution).

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any representation or warranty, express or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This document will be revised as more information becomes available. If you have questions, contact Hamilton Company.