SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: RSM-50-HP

Product Name: Radium selective cation resin

Revision Date: Jul 28, 2025 **Date Printed:** Nov 03, 2025

Version: 1.0 **Supersedes Date:** Jun 09, 2025

Manufacturer's Name: ResinTech, Inc.

Address: 1801 Federal Street, Camden, NJ, US, 08105

Emergency Phone: ChemTrec, (800) 424-9300

Information Phone Number: (856) 768-9600

Email: ixresin@resintech.com

Product/Recommended Uses: Water Purification

SECTION 2) HAZARDS IDENTIFICATION

Classification

Not classified as a hazardous substance or mixture in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).

Hazards Not Otherwise Classified (HNOC)

No data available.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0069011-22-9	BENZENE, DIETHENYL-, POLYMER WITH ETHENYLBENZENE AND ETHENYLETHYLBENZENE, SULFONATED, SODIUM SALTS	40% - 60%
0007732-18-5	WATER	30% - 45%
0007727-43-7	BARIUM SULFATE	15% - 20%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell or are concerned.

Eye Contact

Gently brush product off face. Do not rub eyes. Let the eyes water naturally for a few minutes. Look right and left, then up and down. If particle/dust does not come out, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes or until particle/dust is removed, while holding the eyelids open. If eye irritation persists: Get medical advice/attention. Do not attempt to manually remove anything from the eyes.

Skin Contact

Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention.

Ingestion

Rinse mouth. If you feel unwell/If concerned: Get medical advice/attention.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Large Fire: Dry chemical, CO2, alcohol resistant foam or water spray Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

Unsuitable Extinguishing Media

Do not use water jet.

Specific Hazards Arising from the Chemical

Dense smoke may be generated while burning.

Precautions for Firefighters

Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray is recommended to cool or protect exposed materials or structures. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Equipment

Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Do not touch or walk through spilled material. Ventilate closed spaces before entering.

Protective Equipment

See section 8 for specifics on protective personal equipment (PPE).

Personal Precautions

Avoid breathing dust. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions

Prevent further leakage or spillage if safe to do so.

Methods and Materials for Containment and Cleaning up

Pick up with inert, non-combustible material using clean, non-sparking tools and place into loosely covered plastic containers for later disposal.

SECTION 7) HANDLING AND STORAGE

General

Avoid breathing dust. Avoid contact with skin, eye or clothing. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Use good personal hygiene practices. Wash hands after use.

Ventilation Requirements

Report ventilation failures immediately. Use only with adequate ventilation to control air contaminants to their exposure limits.

Storage Room Requirements

Store in cool, dry, well-ventilated areas away from heat, direct sunlight and strong oxidizers. Keep container(s) tightly closed and properly

labeled. Containers that have been opened must be carefully resealed to prevent leakage.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear eye protection with side shields or goggles.

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

Respiratory protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	OSHA Tables (Z1, Z2, Z3)	OSHA Carcinogen	OSHA TWA (ppm)	OSHA TWA (mg/m3)	OSHA STEL (ppm)	OSHA STEL (mg/m3)	ACGIH TWA (ppm)	ACGIH TWA (mg/m3)
BARIUM SULFATE	1			[15]; [5 (a)];				5 (I)(E)

Chemical Name	ACGIH STEL (ppm)	ACGIH STEL (mg/m3)	NIOSH TWA (ppm)	NIOSH TWA (mg/m3)	NIOSH STEL (ppm)	NIOSH STEL (mg/m3)	ACGIH Carcinogen	NIOSH Carcinogen
BARIUM SULFATE				10,5a				

Chemical Name	ACGIH TLV Basis	ACGIH Notations	OSHA Skin designation	OSHA	CAN_ONsmg	CAN_ONtmg	CAN_ONsppm	CAN_ONtppm
BARIUM SULFATE	Pneumoconiosis			1				

Chemical Name	CAN_QCVEMPppm - CANADA_QUEBEC VALEUR D''EXPOSITION MOYENNE PONDÉRÉE_ppm	CAN_QCVEMPmg - CANADA_QUEBEC VALEUR D''EXPOSITION MOYENNE PONDÉRÉE_mg	CAN_QCVECDppm - CANADA_QUEBEC VALEUR D''EXPOSITION DE COURTE DURÉE_ppm	CAN_QCVECDmg - CANADA_QUEBEC VALEUR D''''EXPOSITION DE COURTE DURÉE_mg	CAN_ALtppm	CAN_ALtmg	CAN_ALsmg	CAN_AL_Notation
BARIUM SULFATE		5				10		

Chemical Name	CANtppm	CANtmg	CANsppm	CANsmg	CAN_AL_Carcinogen	CAN_ALsppm
BARIUM SULFATE						

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

% HAPS	0.00000%
% Solids by Vol	N/A
% Solids By Weight	0.00000%
% VHAPS	0.00000%

% VOC	0.00000%
Density	0.96000 g/ml
Density HAPS	0.00000 lb/gal
Density VHAPS	0.00000 lb/gal
Density VOC	0.00000 lb/gal
Specific Gravity	0.96000

Kinematic Viscosity Temperature	N/A
Flash Point Symbol	N/A
Flash Point	N/A
Coefficient Water/Oil	N/A
Flammability	N/A
Water Solubility	insoluble
Viscosity	N/A
Appearance	tan beads
pH	6-8
Odor Description	N/A
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Freezing Point	N/A
Melting Point	N/A
High Boiling Point	N/A
Low Boiling Point	N/A
Auto Ignition Temp	N/A
Evaporation Rate	N/A
Decomposition Pt	N/A
Kinematic Viscosity	N/A

SECTION 10) STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal storage and handling conditions.

Conditions To Avoid

Avoid heat, sparks, flame, high temperature and contact with incompatible materials.

Possibility of Hazardous Reactions/Polymerization

No data available.

Incompatible Materials

Strong bases, acids, and oxidizing agents.

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11) TOXICOLOGICAL INFORMATION

Acute Toxicity

The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is >5000 mg/kg body weight

The Acute Toxicity Estimate (ATE) for an inhalation (vapour) exposure to this mixture is >20 mg/l

Aspiration Hazard

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Serious Eye Damage/Irritation

Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

Chronic Exposure

Based on available data, the classification criteria are not met.

Potential Health Effects - Miscellaneous

Based on available data, the classification criteria are not met.

SECTION 12) ECOLOGICAL INFORMATION

Other Adverse Effects

No data available.

Ecotoxicity

Based on available data, the classification criteria are not met.

Persistence and Degradability

No data available.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

SECTION 13) DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

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.

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste.

Waste Disposal

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste.

Waste management should be in full compliance with national, state and local laws.

SECTION 14) TRANSPORT INFORMATION

	U.S. DOT Information	IMDG Information	IATA Information
UN Number:	Not Regulated	Not Regulated	Not Regulated
UN proper shipping name:	N/A	N/A	N/A
Transport Hazard class(es)	Not Applicable	Not Applicable	Not Applicable
Packing group	Not Applicable	Not Applicable	Not Applicable
Hazardous substance (RQ)	Not Applicable	Not Applicable	Not Applicable
Environmental hazards	No Data Available	No Data Available	No Data Available
Special precautions for user	No Data Available	No Data Available	No Data Available
Transport in bulk according to Annex II of MARPOL and the IBC code	No Data Available	No Data Available	No Data Available

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0069011-22-9	BENZENE, DIETHENYL-, POLYMER WITH ETHENYLBENZENE AND ETHENYLETHYLBENZENE, SULFONATED, SODIUM SALTS	40% - 60%	DSL - Domestic Substance List, SARA312, TSCA - Toxic Substances Control Act (TSCA)
0007732-18-5	WATER	30% - 45%	DSL - Domestic Substance List, TSCA - Toxic Substances Control Act (TSCA)
0007727-43-7	BARIUM SULFATE	15% - 20%	DSL - Domestic Substance List, SARA312, TSCA - Toxic Substances Control Act (TSCA), NJ_RightToKnow_HazSubList - New Jersey Right to Know Hazardous Substance List (RTKHSL)

Product does not contain any chemicals listed under California Proposition 65

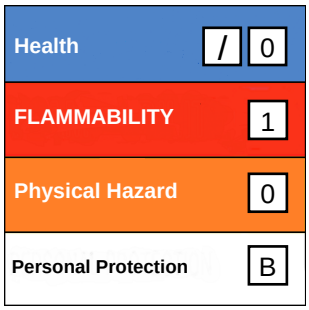
SECTION 16) OTHER INFORMATION

Glossary

ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational

Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.

HMIS



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

Version 1.0:

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Version 1.0

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