
MATERIAL SAFETY DATA SHEET

1. Identification of the substance or preparation and of the company/undertaking

- 1.1. product name : 001×8 (Food Grade)cation exchange resin
- 1.2. Trade name or designation of mixture: Polystyrene sulphonic acid
EC Number: Not applicable
REACH Registration Number: This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH
- 1.3 Use of the substance/preparation: Ion Exchange, Adsorbent, and/or Catalyst
- 1.4 Company/undertaking Identification:
Name of Manufacturer:
Responsible Person:
Email:
- 1.5 Emergency Telephone:

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Date of revision:

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2. Hazards identification

Emergency overview

- Physical state: gold, amber, light brown, dark brown, black, green solid (bead)
- Odor: Not applicable
- Contact with eyes: May cause temporary eye irritation
- Contact with skin: May be slightly irritating to skin

Low hazard for unusual industrial or commercial handling by trained personnel

Potential health effects

- Inhalation: Limited inhalation hazard at normal work temperatures
- Eye Contact: May cause temporary eye irritation
- Skin Contact: May be slightly irritating to skin
- Ingestion: Under normal conditions of intended use, this material does not pose a risk to health However, ingestion may cause irritation and malaise
- Chronic Health Effects: No other specific acute or chronic health impact noted noted
- Target Organ(s): Eye / Skin
- Potential Physical / Chemical Effects: This mixture is a combustible per NFPA

Environmental effects

- The environmental hazard of the mixture is considered limited

3. Composition/information on ingredients

3.1

Ingredient	Concentration	CAS Number	Hazard Statement	R Phrases	Hazard Pictogram	Symbol
Sodium polystyrene sulfonate	50-55%	69011-22-9	----	----	----	----
Water	45-50%	7732- 18-5	----	----	----	----

4. First aid measures

Inhalation

- No specific first aid measures noted.

Eye Contact

- Any material that contacts the eye should be washed out immediately with water. If easy to do, remove any contact lenses.

Get medical attention if any discomfort continues.

Skin Contact

- Wash skin with soap and water.

Ingestion

- Immediately rinse mouth and drink plenty of water (200-300 ml). Large quantities: Get medical attention if irritation persists.

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5. Fire-fighting measures

Flammable Properties

- NFPA Rating Fire = 1

Extinguishing media

- Extinguish with foam, carbon dioxide, dry powder or water fog

Unsuitable extinguishing media

- Not applicable

Special fire fighting procedures

- Self-contained breathing apparatus and full protective clothing must be worn in case of fire

Unusual fire and explosion hazards

- Not available

Hazardous combustion products

- Monomers, residual organics, carbon and sulfur oxides

Protective measures

- Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace

6. Accidental release measures

Personal precautions

- Keep people away
- Spillage causes slippery surface

Environmental precautions

- Do not allow to enter public sewers and watercourses

Methods for cleaning up

- Sweep up as much as possible and transfer to plastic containers for recovery or disposal

7. Handling and storage

7.1 Handling

- Avoid contact with eyes and prolonged skin contact. See section 8 of the MSDS for personal protective equipment

7.2 Storage

- Store at temperatures above 0 °C
- Store at temperatures below 40 °C
- Keep in original container
- Keep container tightly closed to prevent the loss of water
- Store away from incompatible materials

8. Exposure controls/personal protection

8.1 Exposure limits

- No exposure limits noted for mixture

8.2 Exposure controls

- Provide adequate ventilation

8.2.1 Occupational exposure controls

- Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used,

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a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998.

Respirator type: High-efficiency particulate respirator

- Eye Protection: Risk of contact: Wear approved safety goggles
- Hand Protection: Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier
- Skin Protection: Risk of contact: Use skin protection. It is a good industrial hygiene practice to minimize skin contact

8.2.2 Hygiene Measures

- Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants

8.2.3 Environmental exposure controls

- Environmental manager must be informed of all major spillages

9. Physical and chemical properties

- 9.1 - Appearance: Gold, amber, light brown, dark brown, black, green beads
- Odor: Odorless
- Odor Threshold: Not available
- Physical State: Solid (bead)
- pH: neutral aqueous slurry

- Melting Point: Not available
- Freezing Point: Not available
- Boiling Point: Not available
- Flash Point: Not available
- Evaporation Rate: Not available
- Flammability (solid, gas): Not available
- Flammability Limit - Upper/Flammability Limit
- Lower (%): Not available
- Vapor Pressure: Not available
- Vapor Density (Air=1): Not available
- Specific Gravity: 1.15 - 1.20
- Solubility in Water: Insoluble
- Solubility (Other): Not available
- Partition Coefficient (n-Octanol/water): Not available
- Auto Ignition Temperature: Not available
- Decomposition Temperature: Not available

10. Stability and reactivity

10.1 Conditions to avoid

- Considered stable under normal conditions
- Avoid heat

10.2 Materials to avoid

- Incompatible with strong oxidising substances. Contact with strong oxidisers, especially nitric acid, may produce low molecular weight organics that may form explosive mixtures

10.3 Hazardous decomposition products

- At Elevated Temperatures: Benzene compounds, Carbon Oxides, Styrene, Sulfur Oxides

10.4 Possibility of Hazardous Reactions: Not available

11. Toxicological information

Acute toxicity

- No evidence of acute toxicity

Carcinogenicity

- No evidence of carcinogenic effects

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Teratogenicity

- No evidence of reproductive effects

Mutagenicity

- No evidence of mutagenic effects

12. Ecological information

12.1 Ecotoxicity

- No data available

12.2 Mobility

- The mixture is insoluble in water and will sediment in water systems

12.3 Persistence and degradability

- The mixture is not readily biodegradable

12.4 Bioaccumulative potential

- Potential to bioaccumulate is low

12.5 Other adverse effects

- No data available

13. Disposal considerations

General Information

- Dispose of waste and residues in accordance with local authority requirements

Disposal Methods

- No specific disposal method required

Container

- Since emptied containers retain product residue, follow label warnings even after container is emptied

14. Transport information

- DOT Not regulated.
- TDG Not regulated.
- IATA Not regulated.
- IMDG Not regulated.

15. Regulatory information

Canadian Controlled Products Regulations

- This mixture has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information

WHMIS Classification

- This is not a WHMIS controlled mixture

Mexican Dangerous Statement

- This mixture is not dangerous according to Mexican regulations

Applicable International laws and regulations

- This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH

Inventory Status

- This mixture or all components are listed or exempt from listing on the following inventory: TSCA, DSL

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US Regulations

- CERCLA Hazardous Substance List (40 CFR 302.4): Not regulated

SARA Title III

- Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A): Not regulated
- Section 311/312 (40 CFR 370):
Acute (Immediate) Chronic (Delayed) Fire Reactive Pressure Generating
- Section 313 Toxic Release Inventory (40 CFR 372): Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

- Not regulated

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

- Not regulated

Drug Enforcement Act

- Not regulated

TSCA

- TSCA Section 4(a) Final Test Rules & Testing Consent Orders: Not regulated
- TSCA Section 5(a)(2) Final Significant New Use Rules (SNURs) (40CFR 721, Subpt. E): Not regulated
- TSCA Section 5(e) PMN-Substance Consent Orders: Not regulated
- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated

State Regulations

- California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): Not regulated
- Massachusetts Right-To-Know List: Not regulated
- Michigan Critical Materials List (Michigan Natural Resources and Environmental Protection Act (Act. 451 of 1994)): Not regulated
- Minnesota Hazardous Substances List: Not regulated
- New Jersey Right-To-Know List: Not regulated
- Pennsylvania Right-To-Know List: Not regulated
- Rhode Island Right-To-Know List: Not regulated

16. Other information

HAZARD RATINGS

	Health Hazard	Fire Hazard	Instability	Special Hazard
NFPA	1	1	0	0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

NFPA Label colored diamond code: Blue - Health; Red - Flammability; Yellow - Instability; White - Special Hazards

	Health Hazard	Flammability	Physical Hazard	Personal Protection
HMIS	1	1	0	-----

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

HMIS Label colored bar code: Blue - Health; Red - Flammability; Orange - Physical Hazards; White - Special

-Relevant R phrases: R36 Irritating to eyes

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Note:

The information provided in this material safety data sheet is based on current knowledge about the product and current legal requirements and standards. It relates specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses or misuses, does not signify any warranty with regard to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.

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