

MATERIAL SAFETY DATA SHEET

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

1.1 Identification of substance or preparation: H-C100E,H-C100 Cation Exchange Resins

1.2 Use of the substance/preparation: Ion Exchange Resins, Adsorbent, and/or Catalyst

Chemical Name: Sodium polystyrene sulphonate

1.3 Company/undertaking Identification: SEMTEC TECHNOLOGY LIMITED

Name of Manufacturer: SEMTEC TECHNOLOGY LIMITED

2. Hazards identification

Emergency overview

-Physical state: Solid (bead)

-Color: Not applicable

-Odor: Not applicable

Low hazard for unusual industrial or commercial handling by trained personnel.

OSHA regulatory status

-This product is not hazardous according to OSHA 29CFR 1910.1200.

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

3. Composition/information on ingredients

Ingredient Concentration CAS Number R Phrases Symbol

Sodium polystyrene sulphonate 40-65% 69011-22-9 - -

Water 35-60% 7732-18-5 - -

1. 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 (200-300ml). Large quantities: Get medical attention if irritation persists.

5. Fire-fighting measures

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

-None known.

Hazardous combustion products

-Benzene compounds, carbon oxides, styrene, sulfur oxides.

Protective measures

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

Flammability class

-NFPA Rating Fire = 1

6. Accidental release measures

Personal precautions

-Keep people and animals 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 ingredients

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, 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 materials 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 -Color: Brown

- Odor: Not applicable
- Odor Threshold: Not applicable
- Physical State: Solid (bead)
- Ph: Not applicable
- Melting Point: Not applicable
- Freezing Point: Not applicable
- Boiling Point: Not applicable
- Flash Point: Not applicable
- Evaporation Rate: Not applicable
- Flammability Limit-Upper (%): Not applicable
- Flammability Limit-Lower (%): Not applicable
- Vapor Pressure: Not applicable
- Vapor Density: Not applicable
- Specific Gravity: 1.27 approximate
- Solubility in Water: Insoluble
- Solubility (Other): Not applicable
- Partition Coefficient(n-Octanol/water): Not applicable
- Auto Ignition Temperature: Not applicable
- Decomposition Temperature: Not applicable
- Important health, safety, and environmental information

10. Stability and reactivity

10.1 Conditions to avoid

- Considered stable under normal conditions
- Avoid heat

10.2 Materials to avoid

-Incompatible with strong oxidizing substances. Contact with strong oxidizers, 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: Will not occur

11. Toxicological information

Listed Carcinogens

-None

Product Information

- Acute Toxicity: No additional adverse health effects noted
- Chronic Toxicity: No data available

12. Ecological information

12.1 Ecotoxicity

-NO data available

12.2 Mobility

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

12.3 Persistence and degradability

-The product 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 containers is emptied

14. Transport information

-DOT Not regulated

-TDG Not regulated

-IATA Not regulated

-IMDG Not regulated

15. Regulatory information

16. Other information

Note:

The information provided in this materials 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.