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Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

1) Product name: Cation exchange resins
2) Recommended use of the chemical and restrictions on use
-Recommended use: Ion exchange resins
- Restrictions on use: It is inedible
3) Manufacturer or supplier's details
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-Fax:+86-392-2897888
-E-mail: info@suncycle.net
-Homepage：www.suncycle.net

2. HAZARDS IDENTIFICATION

1) Globally Harmonized System of Classification and Labeling of Chemicals(GHS)
- Physical hazard: Not applicable
-Health hazard: Not applicable
-Environment hazard: Not applicable
2) Label elements including precautionary statements
-Symbol: Not applicable
-Signal word: Not applicable
- Hazard statements: Not applicable
- Precautionary statements: Not applicable
3) US NFPA
-Health:0, Flammability: 1, Reactivity: 0, Water reactivity:0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	EINECS No.	Conc. %
Sodiumvinylbenzensulfonate divinylbenzene polymer	63182-08-1	No data available from ECHA	54±5
Water	7732-18-5	231-791-2	46±5

4. FIRST AID MEASURES

1) In case of eye contact
- Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

2) In case of skin contact
- Wash off with soap and plenty of water.

3) If inhaled
- If breathed in, move person into fresh air.
- If not breathing, give artificial respiration.
- Consult a physician.

4) If swallowed
- Never give anything by mouth to an unconscious person.
- Rinse mouth with water.

5) Other medical attention
- Medical personnel should be aware of the protective measures of the substance.

6) Potential health effect
- May be harmful if swallowed.

5. FIRE, FIGHTING MEASURES

1) Flammable properties
- Flash point: No flash occurred under 93℃ (Rapid equilibrium method)
- Autoignition temperature: No spontaneous combustion under 200℃
- Burning rate: Did not ignite (UN TDG test & criteria - Test N1)

2) Suitable extinguishing media
- Water spray, alcohol-resistant foam, dry chemical, carbon dioxide

3) Specific hazards arising from the chemical
- No data available

4) Special protective equipment for fire-fighters
- Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

1) Personal precautions
   - Ensure adequate ventilation.
2) Environmental precautions
   - No data available
3) Methods and materials for containment and cleaning up
   - Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

1) Precautions for safe handling
   - Avoid breathing dust.
   - Provide appropriate exhaust ventilation at places where dust is formed.
2) Conditions for safe storage
   - Store in a closed container.
   - Avoid direct sunlight, heat sources, and strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

1) Components with workplace control parameter
   - Use adequate ventilation to keep airborne concentrations low.
2) Biological exposure limits: CAS# 9002-23-7
3) Appropriate engineering controls: No data available
4) Personal protective equipment
   - Respiratory protection: Dust mask for chemicals
   - Eye protection: Protective goggles for chemicals
   - Hand protection: Protective gloves
   - Skin and body protection: Working clothes for chemicals

9. PHYSICAL AND CHEMICAL PROPERTIES

1) State: Solid(Granular) at 20℃
2) Odour and Odour threshold: No data available
3) pH: 6.8~7.8 at 20℃※ Sample:H2O = 1:5(V/V)
4) Melting point, Freezing range (Initial): > 80℃
5) Boiling point: No data available
6) Flash point: No flash occurred under 93℃ (Rapid equilibrium method)
7) Evaporation rate: No data available

8) Flammable properties
-Burning rate: Did not ignite ※ UN TDG test & criteria - Test N1
9) Lower explosion limit, Upper explosion limit: No data available
10) Vapour pressure: No data available
11) Water solubility: Insoluble at 20℃
12) Vapor density: No data available
13) Density: 1.3 at 20℃
14) Partition coefficient (n-octanol, water): No data available
15) Autoignition temperature: No spontaneous combustion under 200℃
16) Decomposition temperature: No data available
17) Viscosity: No data available
18) Explosive properties: No self-reaction hazard ※ UN TDG test & criteria - Test E3
19) Oxidizing properties: No data available
20) Molecular weight: No data available

10. STABILITY AND REACTIVITY

1) Chemical stability
-Stable under general condition.
2) Conditions to avoid
-Avoid breathing dust.
3) Materials to avoid
-Strong oxidizing agents
4) Hazardous decomposition products
-Carbon oxides, Sulfur oxides

11. TOXICOLOGICAL INFORMATION

1) Information on the likely route of exposure
2) Information on health harmfulness
3) Acute toxicity
-Oral rat LD50: No data available ※ from US NLM/ECHA
-Skin rabbitLD50: No data available
-Inhalation rat LC50(dust, 4h): No data available
4) Skin irritation: No data available
5) Eye irritation: No data available
6) Respiratory sensitization: No data available
7) Skin sensitization: No data available

8) Germ cell mutagenicity: No data available
9) Carcinogenicity: Not classifiable ※ from CCRIS/IARC
10) Reproductive toxicity: No data available
11) Specific target organ toxicity - single exposure (GHS): No data available
12) Specific target organ toxicity - repeated exposure (GHS): No data available
13) Aspiration hazard: No data available

12. ECOLOGICAL INFORMATION

1) Toxicity
-FishLC50: No data available ※ from US NLM/ECHA
-Crustacean EC50: No data available
-Algae EC50: No data available
2) Persistence and degradability: No data available
3) Bio accumulative potential: No data available
4) Mobility in soil: No data available
5) Other adverse effects: No data available

13. DISPOSAL CONSIDERATIONS

1) Disposal consideration
-Observe all environmental regulations.
2) Disposal precaution(including contaminated container and packaging method)
-Keep in suitable, closed containers for disposal.

14. TRANSPORT INFORMATION

1) UN TDG: Not dangerous goods
2) UN proper shipping name: Not dangerous goods
3) Dangerousness class: Not dangerous goods
4) Packing group (if possible): Not dangerous goods
5) Marine pollution(applicable or not applicable): Not applicable
6) Special precaution
-Fire EmS Guide: F-A (Recommendation)
-Spillage EmS Guide: Not dangerous goods
7) IMDG/IMO: Not regulated

15. REGULATORY INFORMATION

1) European/International Regulations

2) European Labeling in Accordance with EC Directives Hazard Symbols:Not available

- Risk Phrases:
- Safety Phrases:
- S 24/25 Avoid contact with skin and eyes.

3) WGK (Water Danger/Protection) CAS# 9002-23-7: Not available

4) Canada US Federal

5) TSCA

6) CAS# 9002-23-7 is not listed on the TSCA Inventory. It is for research and development use only.

16. OTHER INFORMATION

1) Issued Date: 2013. 06.21

2) Revision Date: 2023. 02. 21

3) References: Not available.

4) Acronyms and Websites

- ECHA: European chemical agency, http://echa.europa.eu/
- US NLM: U.S. National Library of Medicine, http://chem.sis.nlm.nih.gov/chemidplus/
- HSDB: U.S. Hazardous Substances Data Bank, http://toxnet.nlm.nih.gov/
- CCRIS: U.S. Chemical Carcinogenesis Research Information System, http://toxnet.nlm.nih.gov/
- IARC: International Agency for Research on Cancer, http://monographs.iarc.fr/
- JP NITE: Japan National Institute of Technology and Evaluation, http://www.safe.nite.go.jp/

5)Hazards Testing and Classification

- China MSDS Testing Laboratory