



Delonizer

SAFETY DATA SHEET

Crystal Quest® Manufacturing
55 Chastain Road Suite 100
Kennesaw, GA 30144 USA
Phone: 800-934-0051

Section 1. Identification of the substance/mixture and of the company/undertaking

- 1.1. Product Identifier:**
Trade name or designation of mixture: Purolite® MB400
Trade name or designation of mixture: Polystyrene sulphonic acid
Polyvinyl benzyl trimethyl ammonium hydroxide
EC Number: Not applicable.
Registration Number: This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH.
- 1.2. Use of the substance/preparation** Ion Exchange, Adsorbent, and/or Catalyst
- 1.3. Company/undertaking Identification:** Purolite
150 Monument Road
Bala Cynwyd, PA 19004 USA
Tel:+1 610 668 9090
Fax:+1 610 668 8139
- Manufacturer:** Purolite S.R.L.
Str.Aleea Uzinei nr.11,
505700 Victoria,
Judetul Brasov,
Romania
Tel:+40 2682 43004
Fax:+40 2682 43002
- Purolite (China) Co. Limited
Qianlong Economic Development Zone,
Qianyuan Town, Deqing County,
Huzhou City, Zhejiang, China 313216
Tel:+86 572 8422908
Fax:+86 572 8425345
- Responsible Person:** Ken Shaner
Email: msds@purolite.com
- 1.4. Emergency Telephone:** USA Toll Free: + 1 866 387 7344, 24 hours 7 days a week

Section 2. Hazards identification

Emergency overview

| | |
|---------------------------|-------------------------------------------------------|
| Physical state: | Solid (bead) |
| Color: | Mixture of white, cream, amber, brown spherical beads |
| Odor: | N/A |
| Contact with eyes: | Warning! Causes eye irritation (R36) |
| Contact with skin: | Warning! Causes mild skin irritation |

Low hazard for unusual industrial or commercial handling by trained personnel

OSHA regulatory status

This mixture is 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 |
| 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 |
| Target Organ(s): | Eye / Skin |
| Potential Physical / Chemical Effects: | This mixture is not flammable |

Environmental effects

May change the pH of receiving waters in case of major spillages

Section 3. Composition/information on ingredients

3.1

| Ingredient | Concentration | CAS # | Hazard Statement | R Phrases | Hazard Pictogram | Symbol |
|-----------------------------------------------|---------------|------------|------------------|-----------|------------------|--------|
| Polystyrene sulphonic acid | 20-30% | 69011-20-7 | H319 | R36 | GH07 | Xi |
| Polyvinyl benzyl trimethyl ammonium hydroxide | 15-30% | 69011-18-3 | H319 | R36 | GH07 | Xi |
| Water | 40-65% | 7732-18-5 | - | - | - | - |

Section 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 irritation persists

Section 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

N/A

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

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors

Protective measures

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

Section 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

Section 7. Handling and storage

7.1 Handling

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

7.2 Storage

Store at temperatures above 0°C (32°F)

Store at temperatures below 40°C (104°F)

Keep in original container

Keep container tightly closed to prevent the loss of water

Store away from incompatible materials

Section 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, 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

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|------------------------------------------|-------------------------------------------------------|
| Appearance: | Mixture of white, cream, amber, brown spherical beads |
| Odor: | Odorless |
| Odor Threshold: | N/A |
| Physical State: | Solid (bead) |
| pH: | Acidic/alkaline as aqueous slurry |
| Melting Point: | N/A |
| Freezing Point: | N/A |
| Boiling Point: | N/A |
| Flash Point: | N/A |
| Evaporation Rate: | N/A |
| Flammability (solid, gas): | N/A |
| Flammability Limit | |
| Upper/Flammability Limit - Lower (%): | N/A |
| Vapor Pressure: | N/A |
| Vapor Density (Air=1): | N/A |
| Specific Gravity: | 1.05 - 1.28 |
| Solubility in Water: | Insoluble |
| Solubility (Other): | N/A |
| Partition Coefficient (n-Octanol/water): | N/A |
| Auto Ignition Temperature: | N/A |
| Decomposition Temperature: | N/A |

Section 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: monomers, residual organics, amines, carbon, sulfur and nitrogen oxides

10.4 Possibility of Hazardous Reactions:
N/A

Section 11. Toxicological information

Acute toxicity

No evidence of acute toxicity

Carcinogenicity

No evidence of carcinogenic effects

Teratogenicity

No evidence of reproductive effects

Mutagenicity

No evidence of mutagenic effects

Section 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

Section 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

Section 14. Transport information

| | |
|------|---------------|
| DOT | Not regulated |
| TDG | Not regulated |
| IATA | Not regulated |
| IMDG | Not regulated |

Section 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 SDS 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 meets the OECD polymer definition and is therefore exempt from REACH registration

Inventory Status

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

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

Section 16. Other information:

Hazard Ratings

NFPA

| | |
|----------------|---|
| Health Hazard | 1 |
| Fire Hazard | 1 |
| Instability | 0 |
| Special Hazard | 0 |

0-minimal; 1-slight; 2-moderate; 3-serious; 4-severe

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

HMIS

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

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 Hazard Statements: (H319) Causes serious eye irritation

Relevant R phrases: (R36) Irritating to eyes

The information provided in this 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.