

MATERIAL SAFETY DATA SHEET

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

- 1.1.** Identification of substance or preparation: **Purolite® MB400**
- Trade name or designation of mixture: Polystyrene sulphonic acid
Polyvinyl benzyl trimethyl ammonium hydroxide
- 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
- 1.2.** Use of the substance/preparation: Ion Exchange, Adsorbent, and/or Catalyst
- 1.3.** Company/undertaking Identification:
- Purolite International Limited
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Llantrisant, Wales, UK CF72 8LF
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- Name of Manufacturer: Purolite S.R.L.
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- Purolite (China) Company Limited,
Qianlong Economic Development Zone,
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Tel: +86 572 842 2908
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- The Purolite Company
150 Monument Road
Bala Cynwyd, PA 19004 USA
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- 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
USA Direct: + 1 760 602 8703, 24 hours 7 days a week

2. Hazards identification

- Contact with eyes: Warning! (H319) Causes serious eye irritation



- Contact with eyes: Warning! (R36) Irritating to eyes



- Contact with skin: Warning! Causes mild skin irritation
- Environmental hazard: May change the pH of receiving waters in case of major spillages
- This mixture is classified as dangerous according to Directive 1999/45/EC

3. Composition/information on ingredients

3.1 Ingredient	Concentration	CAS Number	Hazard Statement	R Phrases	Hazard Pictogram	Symbol
Polystyrene sulphononic 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	-	-	-	-

4. First aid measures

Inhalation

- Remove patient to fresh air
- Seek medical advice

Contact with skin

- Remove contaminated clothing
- Wash affected area with plenty of water

Contact with eyes

- Immediately wash out with plenty of water for at least 15 minutes
- Seek medical attention if irritation persists

Ingestion

- Give 200-300 ml of water to drink
- Never give anything by mouth to an unconscious person
- Seek immediate medical attention
- Do not induce vomiting

5. Fire-fighting measures

- In case of fire use water fog, foam, carbon dioxide or dry agent
- Mixture evolves toxic fumes, wear self-contained breathing apparatus
- Wear full protective clothing including chemical protection suit
- Prevent run off water from entering drains if possible
- If polluted water reaches drainage systems or water courses, immediately inform appropriate authorities



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
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7. Handling and storage

7.1 Handling

- No special precautions are required for this mixture
- Risk of static discharge from dry beads

7.2 Storage

- Store above 0 °C
- Do not store above 40 °C
- Avoid dehydration (when rewetted the resin volume may increase and cause a rupture of the packaging)
- Keep only in the original container

7.3 Specific use(s)

- Ion exchange, adsorbent or catalyst
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8. Exposure controls/personal protection

8.1 Exposure limit values

- No exposure limits noted for this mixture

8.2 Exposure controls

- No special precautions are required for this mixture

8.2.1 Occupational exposure controls

- No respiratory protection is required
- Wear rubber or PVC gloves
- Wear eye/face protection
- Eyewash facilities should be available
- Wear suitable protective clothing

8.2.2 Environmental exposure controls

- Environmental manager must be informed of all major spillages

9. Physical and chemical properties

9.1 General information

- Appearance: mixture of white, cream, amber, brown beads
- Odour: odourless

9.2 Important health, safety, and environmental information

- pH - acidic/alkaline
- Boiling point - not available
- Flash point - not available
- Flammability - not available
- Explosive properties - not available
- Oxidising properties - not available
- Vapour pressure - like water
- Relative density - 1.05 - 1.28
- Solubility - insoluble in water and organic solvents
- Water solubility - none
- Partition coefficient : n-octanol/water - not applicable
- Viscosity - not available
- Vapour density - not available
- Evaporation rate - not available

9.3 Other information

- None

10. Stability and reactivity

10.1 Conditions to avoid

- Considered stable under normal conditions

10.2 Materials to avoid

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

10.3 Hazardous decomposition products

- Decomposition products may include monomers, residual organics, amines, carbon, sulphur and nitrogen oxides

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



12. Ecological information

- 12.1** Ecotoxicity
- On available data, mixture is not harmful to aquatic life
- 12.2** Mobility
- Insoluble in water
- 12.3** Persistence and degradability
- Not biodegradable
- 12.4** Bioaccumulative potential
- Bioaccumulation is insignificant
- 12.5** Results of PBT assessment
- Assessment not required
- 12.6** Other adverse effects
- May change pH of receiving waters in case of major spillages

13. Disposal considerations

- The mixture as delivered is a hazardous waste
- The used mixture may be subject to different classifications, in any case the mixture shall be disposed of according to local, regional and national regulations
- EU number for exhausted or saturated ion exchange resins used in chemical surface treatment and coating of metals is 11 01 16
- EU number for exhausted or saturated ion exchange resins used for the preparation of drinking water or water for industrial use is 19 09 05
- EU number for exhausted or saturated ion exchange resins used in waste water treatment plants not otherwise specified is 19 08 06
- In UK, surplus product should be declared a 'Special Waste'. Refer to the 'Control of Pollution (Special Waste) Regulations 1980 - SI 1709'

14. Transport information

- Mixture as supplied is not classified as a dangerous good for transport by sea, road, rail and air

15. Regulatory information

Classification and labeling

- Mixture classified as hazardous as supplied
- (H319) Causes serious eye irritation



- (R36) Irritating to eyes



- Causes mild skin irritation
- (P305+P351+P338) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- (P337+P313) If eye irritation persists: Get medical advice/attention
- (P280) Wear protective gloves/protective clothing/eye protection/face protection
- (S26) In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- (S39) Wear eye / face protection

Applicable laws and regulations

- This mixture is exempted from Registration according to the provisions of Title II and VI and Article 2(9) of REACH
- European Inventory of Existing Commercial Chemical Substances (EINECS): The components of this mixture are on the EINECS inventory or are exempt from inventory requirements

16. Other information

- Relevant Hazard Statements: (H319) Causes serious eye irritation
- Relevant R Statements: (R36) Irritating to eyes
- Restrictions: industrial grade ion exchange resins, adsorbents and catalysts are not intended for analytical, medical, food and pharmaceutical applications without preliminary extensive purification
- This safety data sheet complies with directives 67/548/EEC, 88/379/EEC, 91/155/EEC, and any revisions and amendments

Note:

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.

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