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# SAFETY DATA SHEET

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

### 1.1. Product Identifier:

Trade name or designation of mixture: **Purolite<sup>®</sup> MB400**  
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. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Ion Exchange, Adsorbent, and/or Catalyst  
Uses advised against: None Known.

### 1.3. Details of the supplier of the safety data sheet

Supplier: Purolite Ltd.  
Llantrisant Business Park,  
Llantrisant, Wales, UK CF72 8LF  
Tel:+44 1443 229334  
Fax:+44 1443 227073

Manufacturer: Purolite S.R.L. Purolite  
Str.Aleea Uzinei nr.11, 150 Monument Road  
505700 Victoria, Bala Cynwyd, PA 19004 USA  
Judetul Brasov, Romania  
Tel:+40 2682 43004 Tel:+1 610 668 9090  
Fax:+40 2682 43002 Fax:+1 610 668 8139

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

Contact Person: Ken Shaner  
Email: [msds@purolite.com](mailto:msds@purolite.com)

1.4. **Emergency Telephone Number:** +1 866 387 7344  
+1 760 602 8703

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## 2. Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification Xi;R36

#### 2.1.1 Classification according to Regulation (EC) No 1272/2008 as amended

##### Health Hazards

Serious eye damage/eye irritation Category 2; Causes serious eye irritation.

##### Hazard summary

**Physical hazards** Not classified for physical hazards.

**Health hazards** Irritating to eyes.

**Environmental hazards** Not classified for hazards of the environment.

**Specific hazards** Causes serious eye irritation.

**Main symptoms** Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

### 2.2 Label elements

Label according to Regulation (EC) No. 1272/2008 as amended



**Signal word** Warning

**Hazard statements** Causes serious eye irritation.

##### Precautionary Statements

**Prevention** Wash thoroughly after handling. Wear protective gloves/clothing and eye/face protection.

**Response** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Supplemental label information** None.

### 2.3 Other hazards

Not assigned.

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### 3. Section 3. Composition/information on ingredients

3.1 Substance Not applicable.

#### 3.2 Mixture

##### General Information

3.2.1 Not applicable.

3.2.2 Chemical name	%	N° CAS / N° CE	REACH Registration No.	Index No.	Notes
Polystyrene sulphonic acid	20 - 30	69011-20-7	-	-	-
<b>Classification:</b>	<b>DSD:</b>	Xi;R36			
	<b>CLP:</b>	Eye Irrit. 2;H319			
Polyvinyl benzyl trimethyl ammonium hydroxide	20 - 30	69011-18-3			
<b>Classification:</b>	<b>DSD:</b>	Xi;R36			
	<b>CLP:</b>	Eye Irrit. 2;H319			
Water	40 - 65	7732-18-5 231-791-2	-	-	-
<b>Classification:</b>	<b>DSD:</b>	-			
	<b>CLP:</b>	-			

**DSD): Directive 67/548/EEC.**

**CLP: Regulation No. 1272/2008.**

#### Composition comments

Full text for all R- and H- phrases is displayed in section 16. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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## **4. Section 4. First aid measures**

### **General Information**

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### **4.1 Description of first aid measures**

#### **4.1.1 Inhalation**

-Move into fresh air and keep at rest. Get medical attention if any discomfort continues.

#### **4.1.2 Skin contact**

-Wash off immediately with soap and plenty of water. If irritation persists get medical attention.

#### **4.1.3 Eye contact**

-Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. If eye irritation persists, get medical advice/attention.

#### **4.1.4 Ingestion**

-Rinse mouth thoroughly. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention if any discomfort continues.

### **4.2 Most important symptoms and effects, both acute and delayed**

-Eye contact: Contact may cause irritation with redness, tearing, pain, and/or blurred vision.

### **4.3 Indication of any immediate medical attention and special treatment**

-Treat symptomatically

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## **5. Section 5. Fire-fighting measures**

### **General fire hazards**

-The product is not flammable.

### **5.1 Extinguishing media**

-Suitable extinguishing media

-Extinguishing with foam, carbon dioxide, dry powder or water fog.

-Unsuitable extinguishing media

-None known.

### **5.2 Special hazards arising from the substance or mixture**

-By heating and fire, harmful vapors/gases may be formed.

### **5.3 Advice for fire fighters**

-Special protective equipment for fire fighters

-Wear self-contained breathing apparatus and protective clothing.

-Special fire fighting procedures

-In the event of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

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## **6. Section 6. Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

#### **6.1.1** -For non-emergency personnel

-Avoid contact with skin and eyes. For personal protection, see section 8 of the MSDS.

#### **6.1.2** -For emergency responders

-Keep unnecessary personnel away. Wear protective clothing as described in Section 8 of this safety data sheet.

### **6.2 Environmental precautions**

-Prevent further leakage or spillage if safe to do so. Cover with plastic sheet to prevent spreading. Do not allow to enter drains, sewers or watercourses.

### **6.3 Methods and material for containment and cleaning up**

-Avoid the generation of dusts during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal. Collect and dispose of spillage as indicated in section 13 of the MSDS.

### **6.4 Reference to other sections**

-For personal protection, see section 8 of the MSDS. For waste disposal, see Section 13 of the MSDS.

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## **7. Section 7. Handling and storage**

### **7.1 Precautions for safe handling**

-Use with adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Observe good industrial hygiene practices.

### **7.2 Precautions for safe storage**

-Keep containers tightly closed in a dry, cool and well-ventilated place.

### **7.3 Specific end use(s)**

-Ion exchange, adsorbent or catalyst

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## **8. Section 8. Exposure controls/personal protection**

### **8.1 Control parameters**

#### **8.1.1 Occupational exposure limits**

-No exposure limits noted for ingredient(s).

#### **8.1.2 Recommended monitoring procedures**

-Follow standard monitoring procedures.

#### **8.1.4 DNEL**

-Not available.

PNEC

-Not available.

### **8.2 Exposure controls**

#### **8.2.1 Appropriate engineering controls**

-Provide adequate ventilation.

#### **8.2.2 Individual protection measures, such as personal protective equipment**

-General information

-Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

-Eye/face protection

-If contact is likely, safety glasses with side shields is recommended.

-Skin protection

-Hand protection

-Protective gloves should be worn to prevent skin contact. Suitable gloves can be recommended by the glove supplier.

-Other

-Wear appropriate clothing to prevent repeated or prolonged skin contact.

-Respiratory protection

-No personal respiratory protective equipment is normally required.

-Thermal hazards

-None known.

-Hygiene measures

-Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. 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.

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## 9. Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance:** Beads

**Physical state:** Solid

**Form:** Bead

**Colour:** Mixture of white, cream, amber, brown beads

**Odour:** Odourless

**Odour threshold:** Not available.

**pH:** Acidic/alkaline

**Melting point/freezing point:** Not available.

**Boiling point, initial boiling point, and boiling range:** Not available.

**Flash point:** Not applicable.

**Auto-ignition temperature:** Not applicable.

**Flammability (solid,gas):** Not available.

**Flammability limit-lower (%):** Not available.

**Flammability limit-upper (%):** Not available.

**Oxidising properties:** Not applicable.

**Explosive properties:** Not applicable.

**Explosive limit:** Not applicable.

**Vapour pressure:** Like water

**Vapour density:** Not applicable.

**Evaporation rate:** Not applicable.

**Relative density:** 1.05 - 1.28

**Solubility (water):** Insoluble in water and organic solvents

**Partition coefficient n-octanol/water:** No data available.

**Decomposition temperature:** Not available.

**Viscosity:** Not available.

**Percent volatile:** Not available.

### 9.2 Other Information

-No relevant additional information available.

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## 10. Section 10. Stability and reactivity

### 10.1 Reactivity

-The product is stable and non reactive under normal conditions of use, storage and transport.

### 10.2 Chemical Stability

-Material is stable under normal conditions.

### 10.3 Possibility of hazardous reactions

-No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

-Heat, sparks, flames elevated temperatures.

### 10.5 Incompatible materials

-Strong oxidising agents. Nitric acid.

### 10.6 Hazardous decomposition products

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

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## 11. Section 11. Toxicological information

### General Information

-Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

#### -Ingestion

-May cause discomfort if swallowed.

#### -Inhalation

-Inhalation of dusts may cause respiratory irritation.

#### -Skin contact

-May cause mild skin irritation.

#### -Eye contact

-Causes serious eye irritation.

### Symptoms

-Eye contact: Contact may cause irritation with redness, tearing, pain, and/or blurred vision.

## 11.1 Information on toxicological effects

### 11.1.1 Not applicable.

### 11.1.2 Mixtures

#### Acute toxicity

-May cause discomfort if swallowed.

#### Skin corrosion/irritation

-Prolonged skin contact may cause temporary irritation.

#### Serious eye damage/eye irritation

-Causes Serious eye irritation.

#### Respiratory sensitization

-Not classified.

#### Skin sensitization

-Not classified.

#### Germ cell mutagenicity

-Not classified.

#### Carcinogenicity

-Not classified.

#### -Reproductivity toxicity

-Not classified.

#### Specific target organ toxicity - single exposure

-Inhalation of dust may cause respiratory irritation.

#### Specific target organ toxicity - repeated exposure

-Not classified.

#### Aspiration hazard

-Not classified.

#### Mixture versus substance information

-Not available.

#### -Other information

-Not available.



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## **12. Section 12. Ecological information**

### **12.1 Toxicity**

-No toxicity data noted for the ingredient(s)

### **12.2 Persistence and degradability**

-No data available.

### **12.3 Bioaccumulative potential**

-No data available.

#### **Mobility**

-No data available.

#### **Environmental fate - Partition coefficient**

-No data available.

### **12.4 Mobility in soil**

-No data available.

### **12.5 Results of PBT and vPvB assessment**

-Not a PBT or vPvB substance or mixture.

### **12.6 Other adverse effects**

-The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

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## **13. Section 13. Disposal considerations**

### **13.1 Waste treatment methods**

#### **Residual waste**

-Dispose of in accordance with local regulations.

#### **Contaminated packaging**

-Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### **EU waste code**

-Waste codes should be assigned by the user based on the application for which the product was used.

#### **Disposal methods/information**

-Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/containers in accordance with local/regional/national/international regulations.

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## **14. Section 14. Transport information**

### **14.1 ADR**

-The product is not covered by international regulation on the transport of dangerous goods.

### **14.2 RID**

-The product is not covered by international regulation on the transport of dangerous goods.

### **14.3 ADN**

-The product is not covered by international regulation on the transport of dangerous goods.

### **14.4 IATA**

-The product is not covered by international regulation on the transport of dangerous goods.

### **14.5 IMDG**

-The product is not covered by international regulation on the transport of dangerous goods.

### **14.6 Transport in Bulk according to AnnexII of MARPOL 73/78 and the IBC Code**

-No information available.

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## **15. Section 15: Regulatory information**

### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **EU Regulations**

**-Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I**

-Not listed.

**-Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II**

-Not listed.

**-Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I**

-Not listed.

**-Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1**

-Not listed.

**-Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2**

-Not listed.

**-Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3**

-Not listed.

**-Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V**

-Not listed.

**-Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registry (EPER)**

-Not listed.

**-Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List**

-Not listed.

#### **Other regulations**

-This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. The product does not need to be labelled in accordance with EC directives or respective national laws.

#### **National regulations**

-Follow national regulation for work with chemical agents.

### **15.2 Chemical safety assessment**

-No Chemical Safety Assessment has been carried out.

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## 16. Section 16. Other information

### List of abbreviations

- DNEL: Derived No-Effect Level.
- PNEC: Predicted No-Effect Concentration.
- PBT: Persistent, bioaccumulative and toxic.
- vPvB: Very Persistent and very Bioaccumulative.

### References

- Not available.

### Information on evaluation method leading to the classification of mixture

- The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

### Full text of any statements or R-phrases and H-phrases under Sections 2 to 15

- R36 Irritating to eyes.
- H319 - Causes serious eye irritation.

### Training information

- Follow training instructions when handling this material.

### Further information

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

### Disclaimer

- 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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