Bromopolystyrene, ca 1.0-2.0 mmol/g

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Description: Bromopolystyrene, ca 1.0-2.0 mmol/g

Cat No.: L07941
CAS-No: 88497-56-7

Supplier
Alfa Aesar
Avocado Research Chemicals, Ltd.
Shore Road
Port of Heysham Industrial Park
Heysham, Lancashire LA3 2XY
United Kingdom
Office Tel: +44 (0) 1524 850506
Office Fax: +44 (0) 1524 850608

Emergency Telephone Number
Call Carechem 24 at
+44 (0) 1865 407333 (English only);
+44 (0) 1235 239670 (Multi-language)

E-mail address
uktech@alfa.com
www.alfa.com
Product Safety Department

Recommended Use
Laboratory chemicals.

Uses advised against
No Information available

SECTION 2. HAZARD IDENTIFICATION

Physical State
Solid

Appearance
No information available

Odor
No information available

Emergency Overview
The product contains no substances which at their given concentration are considered to be hazardous to health.

Classification of the substance or mixture
Based on available data, the classification criteria are not met

Label Elements
None required

Physical and Chemical Hazards
None identified.

Health Hazards
The product contains no substances which at their given concentration are considered to be hazardous to health.

Environmental hazards
Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene, ethenyl-, homopolymer, brominated</td>
<td>88497-56-7</td>
<td>&lt;=100</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation
Move to fresh air. Get medical attention immediately if symptoms occur.

Ingestion
Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and effects
None reasonably foreseeable.

Self-Protection of the First Aider
No special precautions required.

Notes to Physician
Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Carbon dioxide (CO₂). Dry powder. Water spray. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Extinguishing media which must not be used for safety reasons
No information available.

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental Precautions
Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Up
Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

Refer to protective measures listed in Sections 8 and 13.

### SECTION 7. HANDLING AND STORAGE

**Handling**
Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation.

**Storage**
Keep container tightly closed in a dry and well-ventilated place.

**Specific Use(s)**
Use in laboratories

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control Parameters

**Monitoring methods**
BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

**Exposure Controls**

**Engineering Measures**
None under normal use conditions.

**Personal protective equipment**

| Eye Protection | Safety glasses with side-shields (European standard - EN 166) |
| Hand Protection | Protective gloves |

<table>
<thead>
<tr>
<th>Glove material</th>
<th>Breakthrough time</th>
<th>Glove thickness</th>
<th>EU standard</th>
<th>Glove comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile rubber</td>
<td>See manufacturers</td>
<td>-</td>
<td>EN 374</td>
<td>(minimum requirement)</td>
</tr>
<tr>
<td>Neoprene</td>
<td>recommendations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural rubber</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

<table>
<thead>
<tr>
<th>Skin and body protection</th>
<th>Long sleeved clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Protection</td>
<td>No protective equipment is needed under normal use conditions.</td>
</tr>
<tr>
<td>Large scale/emergency use</td>
<td>Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced</td>
</tr>
<tr>
<td><strong>Recommended Filter type:</strong></td>
<td>Particle filter</td>
</tr>
<tr>
<td>Small scale/Laboratory use</td>
<td>Maintain adequate ventilation</td>
</tr>
</tbody>
</table>
Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

**Physical State**
Solid

**Odor**
No information available

**Odor Threshold**
No data available

**pH**
No information available

**Melting Point/Range**
No data available

**Softening Point**
No data available

**Boiling Point/Range**
No information available

**Flash Point**
No information available

**Evaporation Rate**
Not applicable

**Flammability (solid, gas)**
No information available

**Explosion Limits**
No data available

**Vapor Pressure**
No data available

**Vapor Density**
Not applicable

**Specific Gravity / Density**
No data available

**Bulk Density**
No data available

**Water Solubility**
No information available

**Solubility in other solvents**
No information available

**Partition Coefficient (n-octanol/water)**
Not applicable

**Autoignition Temperature**
No data available

**Decomposition Temperature**
No data available

**Viscosity**
Not applicable

**Explosive Properties**
No information available

**Oxidizing Properties**
No information available

SECTION 10. STABILITY AND REACTIVITY

**Stability**
Stable under normal conditions.

**Hazardous Reactions**
None under normal processing.

**Hazardous Polymerization**
No information available.

**Conditions to Avoid**
None known.

**Materials to avoid**
Oxidizing agents.

**Hazardous Decomposition Products**
None under normal use conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

**Product Information**

(a) **acute toxicity**;

(b) **skin corrosion/irritation**;

No data available
(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;
Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; No data available
There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available
Target Organs None known.

(j) aspiration hazard; Not applicable
Solid

Symptoms / effects, both acute and delayed No information available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity effects Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Persistence and Degradability No information available

Bioaccumulative Potential No information available

Mobility in soil No information available

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors
Persistent Organic Pollutant This product does not contain any known or suspected substance
Ozone Depletion Potential This product does not contain any known or suspected substance

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated Packaging Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.
Other Information  Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport  Not Regulated

IMDG/IMO  Not regulated

IATA  Not regulated

Special Precautions for User  No special precautions required

SECTION 15. REGULATORY INFORMATION

International Inventories  \( \text{X = listed} \)

<table>
<thead>
<tr>
<th>Component</th>
<th>The Inventory of Hazardous Chemicals (2015 Edition)</th>
<th>List of dangerous goods GB 12268 - 2012</th>
<th>Taiwan Toxic Chemicals Substances Inventor y</th>
<th>IECSC</th>
<th>EINECS</th>
<th>TSCA</th>
<th>DSL</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene, ethenyl-, homopolymer, brominated</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

National Regulations

SECTION 16. OTHER INFORMATION

Prepared By  Health, Safety and Environmental Department
Revision Date  09-Jul-2018
Training Advice  Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Legend

- CAS - Chemical Abstracts Service
- EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- IECSC - Chinese Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- ENCS - Japanese Existing and New Chemical Substances
- AICS - Australian Inventory of Chemical Substances
- NZIoC - New Zealand Inventory of Chemicals
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
Key literature references and sources for data
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Disclaimer
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End of Safety Data Sheet