MATERIAL SAFETY DATA SHEET
p-BROMOBENZYL BROMIDE

1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: p-Bromobenzyl bromide
Synonyms: 4-Bromobenzyl bromide, alpha,p-Dibromotoluene.
Company Identification: Sisco Research Laboratories Pvt. Ltd.
Andheri (East), Mumbai – 400 099.
Tel : +91 22 2687 2601
Fax : +91 22 2687 8241
Website : www.srlchem.com

2 - COMPOSITION, INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>EINECS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>589-15-1</td>
<td>p-Bromobenzyl bromide</td>
<td>98%</td>
<td>209-636-5</td>
</tr>
</tbody>
</table>

3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Danger! Corrosive. The toxicological properties of this material have not been fully investigated. Causes eye and skin burns. Causes digestive and respiratory tract burns.

Target Organs: None.

Potential Health Effects
Eye: Causes eye burns. Lachrymator (substance which increases the flow of tears). Lachrymator (substance which increases the flow of tears).

Skin: Causes skin burns.

Ingestion: Causes gastrointestinal tract burns.

Inhalation: Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Chronic: No information found.

4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
**Inhalation:**
Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:**

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### 5 - FIRE FIGHTING MEASURES

**General Information:**
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:**
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

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### 6 - ACCIDENTAL RELEASE MEASURES

**General Information:**
Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**
Vacuum or sweep up material and place into a suitable disposal container. Reduce airborne dust and prevent scattering by moistening with water. Clean up spills immediately, observing precautions in the Protective Equipment section.

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### 7 – HANDLING AND STORAGE

**Handling:**
Wash thoroughly after handling. Use only in a well-ventilated area. Do not breathe dust, mist, or vapor. Do not get on skin or in eyes. Do not ingest or inhale.

**Storage:**
Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

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### 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

**Engineering Controls:**
Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Exposure Limits Personal Protective Equipment**

**Eyes:**
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:**
Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**
Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved
respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Melting Point</td>
<td>60 - 62 deg C</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C₇H₆Br₂</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>249.93</td>
</tr>
</tbody>
</table>

10 - STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Stability</td>
<td>Stable under normal temperatures and pressures.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>Incompatible materials, dust generation, moisture.</td>
</tr>
<tr>
<td>Incompatibilities with Other Materials</td>
<td>Not available</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Carbon monoxide, carbon dioxide, hydrogen bromide.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Has not been reported.</td>
</tr>
</tbody>
</table>

11 - TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTECS#</td>
<td>CAS# 589-15-1: None listed</td>
</tr>
<tr>
<td>LD50/LC50</td>
<td>RTECS: Not available.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>4-Bromobenzyl bromide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.</td>
</tr>
<tr>
<td>Other</td>
<td>Not available</td>
</tr>
</tbody>
</table>

12 - ECOLOGICAL INFORMATION

Not available

13 - DISPOSAL CONSIDERATIONS

Not available

14 - TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IATA</td>
<td>Corrosive Solid, Acidic, Organic, N.O.S.</td>
</tr>
<tr>
<td>IMO</td>
<td>Corrosive Solid, Acidic, Organic, N.O.S.</td>
</tr>
<tr>
<td>RID/ADR</td>
<td>Corrosive Solid, Acidic, Organic, N.O.S.</td>
</tr>
</tbody>
</table>

15 - REGULATORY INFORMATION

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: C
Risk Phrases: R 34 Causes burns.
Safety Phrases: S 25 Avoid contact with eyes. S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection) CAS# 589-15-1: Not available
Canada CAS# 589-15-1 is listed on Canada's NDSL List

US Federal TSCA CAS# 589-15-1 is listed on the TSCA Inventory.

US Federal Health & Safety Reporting List None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules None of the chemicals in this product are under a Chemical Test Rule.

Section 12b None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances None of the chemicals in this product have a TPQ.

SARA Section 313 No chemicals are reportable under Section 313.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: STATE 4-Bromobenzyl bromide is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65 California No Significant Risk Level: None of the chemicals in this product are listed.

16 - ADDITIONAL INFORMATION

SISCO RESEARCH LABORATORIES provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.