# MATERIAL SAFETY DATA SHEET
## ETHYL BROMIDE

### 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>MSDS Name:</th>
<th>Ethyl bromide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms:</td>
<td>Bromoethane</td>
</tr>
<tr>
<td>Company Identification:</td>
<td>Sisco Research Laboratories Pvt. Ltd.</td>
</tr>
<tr>
<td></td>
<td>Andheri (East), Mumbai – 400 099.</td>
</tr>
<tr>
<td>Tel :</td>
<td>+91 22 2687 2601</td>
</tr>
<tr>
<td>Fax :</td>
<td>+91 22 2687 8241</td>
</tr>
<tr>
<td>Website :</td>
<td><a href="http://www.srlchem.com">www.srlchem.com</a></td>
</tr>
</tbody>
</table>

### 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>74-96-4</td>
<td>Ethyl bromide</td>
<td>99%</td>
<td>200-825-8</td>
</tr>
</tbody>
</table>

### 3 - HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**
Highly flammable. Harmful by inhalation and if swallowed. Limited evidence of a carcinogenic effect.

**Potential Health Effects**

**Eye:**
Causes eye irritation. Causes redness and pain.

**Skin:**
May cause skin burns. Causes redness and pain. May be harmful if absorbed through the skin.

**Ingestion:**
Harmful if swallowed. May cause central nervous system depression, kidney damage, and liver damage. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:**
Harmful if inhaled. Causes respiratory tract irritation. May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes narcotic effects including headache, dizziness, weakness, unconsciousness, and possible death.

**Chronic:**
May cause liver and kidney damage. Limited evidence of a carcinogenic effect.

### 4 - FIRST AID MEASURES

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

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

**Ingestion:**
Get medical aid. Wash mouth out with water.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

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. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable liquid and vapor. Containers may explode if exposed to fire.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

6 - ACCIDENTAL RELEASE MEASURES

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

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool.

7 – HANDLING AND STORAGE

Handling: Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Take precautionary measures against static discharges. Use only in a chemical fume hood. This product may be under pressure; cool before opening.

Storage: Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area.

8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

CAS# 74-96-4:
United States OSHA: 200 ppm TWA; 890 mg/m3 TWA
Belgium - TWA: 5 ppm VLE; 22 mg/m3 VLE
France - VME: 200 ppm VME; 890 mg/m3 VME
Malaysia: 5 ppm TWA; 22 mg/m3 TWA
Netherlands: 5 ppm MAC; 22 mg/m3 MAC
Spain: 5 ppm VLA-ED; 23 mg/m3 VLA-ED

Personal Protective Equipment
Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear a chemical apron.

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

| Physical State: | Liquid |
| Boiling Point: | 37 - 40 deg C |
| Specific Gravity/Density: | 1.456-1.460 |
| Molecular Formula: | C₂H₅Br |
| Molecular Weight: | 108.97 |

### 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources.

Incompatibilities with Other Materials: Strong oxidizing agents, strong bases, alkali metals, aluminum, magnesium, zinc, potassium, sodium, calcium.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, hydrogen bromide.

Hazardous Polymerization: Will not occur.

### 11 - TOXICOLOGICAL INFORMATION

RTECS#: CAS# 74-96-4: KH6475000

LD50/LC50: CAS# 74-96-4: Inhalation, mouse: LC50 = 16230 ppm/1H; Inhalation, mouse: LC50 = 36000 mg/m3/2H; Inhalation, rat: LC50 = 26980 ppm/1H; Inhalation, rat: LC50 = 534000 mg/m3/4H; Oral, rat: LD50 = 1350 mg/kg;

Carcinogenicity: Bromoethane - ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans California: carcinogen, initial date 12/22/00 IARC: Group 3 (not classifiable)

Other: See actual entry in RTECS for complete information. Mutagenicity: Ames-test: positive.

### 12 - ECOLOGICAL INFORMATION

Ecotoxicity: Not available

Other: Biodegradable. log Pow = 1.61
13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

14 - TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>IATA</th>
<th>IMO</th>
<th>RID/ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name:</td>
<td>Ethyl Bromide</td>
<td>Ethyl Bromide</td>
<td>Ethyl Bromide</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>6.1</td>
<td>6.1</td>
<td>6.1</td>
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<tr>
<td>UN Number:</td>
<td>1891</td>
<td>1891</td>
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<tr>
<td>Packing Group:</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
</tbody>
</table>

15 - REGULATORY INFORMATION

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols: XN F
Safety Phrases: S 36/37 Wear suitable protective clothing and gloves.

WGK (Water Danger/Protection)
CAS# 74-96-4: 2
Canada
CAS# 74-96-4 is listed on Canada's DSL List
US Federal
TSCA
CAS# 74-96-4 is listed on the TSCA Inventory.

16 - ADDITIONAL INFORMATION

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