Section 1 - Chemical Product and Company Identification

Product Name: Cetyltrimethyl Ammonium Bromide (CTAB) extrapure AR, 99%
Product Code: 66302
CAS No: 57-09-0
Company Name: Sisco Research Laboratories Pvt. Ltd.
Address: 608, B Wing, Satellite Gazebo, Andheri Ghatkopar Link Road, Andheri (E), Mumbai - 400 099, India

Section 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>57-09-0</td>
<td>Hexadecyltrimethyl Ammonium Bromide</td>
<td>&lt;=100%</td>
<td>200-311-3</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Harmful if swallowed. Irritating to respiratory system and skin. Risk of serious damage to eyes. Very toxic to aquatic organisms.

Potential Health Effects

Eye: Causes serious eye damage. May cause respiratory irritation. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin: Harmful if swallowed. Causes skin irritation.
Ingestion: Harmful if swallowed. May cause irritation of the digestive tract.
Inhalation: May be fatal if inhaled. Causes respiratory tract irritation. Inhalation of vapors will cause coughing or breathing difficulty.

Chronic: Possible risk of irreversible effects.

Section 4 - First Aid Measures

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin: Wash off with soap and plenty of water. Consult a physician.
Ingestion: Get medical aid immediately. Wash mouth out with water.
Inhalation: If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: Wear self contained breathing apparatus for fire fighting if necessary.
Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Section 6 - Accidental Release Measures

General Information: Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure
adequate ventilation.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection

Storage: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Section 8 - Exposure Control / Personal Protection

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

Eye protection: Face shield and safety glasses

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9 - Physical and Chemical Properties

Physical State: solid
Melting Point: 249 - 253 deg C
Molecular Formula: C19H42BrN
Molecular Weight: 364,45 g/mol

Section 10 - Stability and Reactivity

Chemical Stability: Stable under recommended storage conditions.
Conditions to Avoid: N.A.
Incompatibilities with Other Materials: Strong oxidizing agents.
Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen bromide gas
Hazardous Polymerization: Will not occur.
Section 11 - Toxicological Information

**Acute toxicity**
LD50 Oral - rat - 410 mg/kg

**Skin corrosion/irritation**
Serious eye damage/eye irritation
Eyes - rabbit - Severe eye irritation

**Carcinogenicity**
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or specific target organ toxicity

**- single exposure**
Inhalation - May cause respiratory irritation.

**Specific target organ toxicity**

**Potential health effects**
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion Harmful if swallowed.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes serious eye irritation.

**Signs and Symptoms of Exposure**
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

Toxicity to fish LC50 - Danio rerio (zebra fish) - 0,3 mg/l - 96,0 h
Toxicity to daphnia and other aquatic invertebrates.
EC50 - Daphnia magna (Water flea) - 0,03 mg/l - 48 h

**Persistence and degradability**
Biodegradability Biotic/Aerobic
Result: 100 % - Readily biodegradable.

**Other adverse effects**
Very toxic to aquatic organisms.

Section 13 - Disposal Considerations

**Product**
Observe all federal, state, and local environmental regulations.
Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**
Dispose of as unused product

Section 14 - Transport Information

<table>
<thead>
<tr>
<th>IATA Shipping Name</th>
<th>IMO</th>
<th>RID/ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cetrimonium bromide)</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>(Cetrimonium bromide)</td>
<td>(Cetrimonium bromide)</td>
<td></td>
</tr>
</tbody>
</table>

**Hazard Class**
9

**UN Number**
3077

**Packing Group**
III

Page 3 of 4
Section 15 - Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Section 16 - Other Information

Sisco Research Laboratories Pvt. Ltd. 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.