MATERIAL SAFETY DATA SHEET
BUTYLATED HYDROXYTOLUENE

1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Butylated hydroxytoluene pure
Synonyms: 2,6-Di-tert-butyl-4-methylphenol, BHT, DBPC
2,6-Di-tert-butyl-p-cresol, Butylhydroxytoluene
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>128-37-0</td>
<td>Butylated hydroxytoluene</td>
<td>99%</td>
<td>204-881-4</td>
</tr>
</tbody>
</table>

3 - HAZARDS IDENTIFICATION

Risk advice to man and the environment: Harmful if swallowed. Irritating to eyes and skin.

4 - FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.
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: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation: If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

Notes to Physician:

5 - FIRE FIGHTING MEASURES

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters: Wear self contained breathing apparatus for fire fighting if necessary.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.
Environmental precautions: Do not let product enter drains.

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

<table>
<thead>
<tr>
<th>7 – HANDLING AND STORAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Handling:</strong> 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.</td>
</tr>
<tr>
<td><strong>Storage:</strong> Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Light sensitive.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 – EXPOSURE CONTROLS, PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal protective equipment</strong></td>
</tr>
<tr>
<td><strong>Respiratory protection:</strong> 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).</td>
</tr>
<tr>
<td><strong>Hand protection:</strong> 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.</td>
</tr>
<tr>
<td><strong>Eye protection:</strong> Safety glasses</td>
</tr>
<tr>
<td><strong>Skin and body protection:</strong> Choose body protection according to the amount and concentration of the dangerous substance at the work place.</td>
</tr>
<tr>
<td><strong>Hygiene measures:</strong> Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9 - PHYSICAL AND CHEMICAL PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State:</strong> Solid</td>
</tr>
<tr>
<td><strong>Melting point:</strong> 68 - 71 °C</td>
</tr>
<tr>
<td><strong>Molecular Formula:</strong> C_{15}H_{24}O</td>
</tr>
<tr>
<td><strong>Molecular Weight:</strong> 220.35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10 - STABILITY AND REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage stability:</strong> Stable under recommended storage conditions.</td>
</tr>
<tr>
<td><strong>Materials to avoid:</strong> Acid chlorides, Acid anhydrides, Oxidizing agents, Bases, Brass, Copper</td>
</tr>
<tr>
<td><strong>Hazardous decomposition Products:</strong> Hazardous decomposition products formed under fire conditions. - Carbon oxides</td>
</tr>
</tbody>
</table>
11 - TOXICOLOGICAL INFORMATION

Acute toxicity: LD50 Oral - rat - 890,0 mg/kg
Irritation and corrosion: Skin - rabbit - Skin irritation - 48 h
                    Eyes - rabbit - Eye irritation - 24 h
Sensitisation: No data available
Chronic exposure: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: Group 3 - Not classifiable as to carcinogenicity to humans (2,6-di-tert-Butyl-p-cresol)

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

Potential Health Effects
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.
Ingestion: Harmful if swallowed.

12 - ECOLOGICAL INFORMATION

Elimination information
(persistence and degradability): No data available
Ecotoxicity effects: Toxicity to fish LC50 - Oryzias latipes - 5,3 mg/l - 48 h
                     Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia pulex (Water flea) - 1,44 mg/l - 48 h

Further information on ecology: No data available

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.

14 - TRANSPORT INFORMATION

Shipping Name: Not dangerous goods
Hazard Class: Not dangerous goods
UN Number: Not dangerous goods
Packing Group:

15 - REGULATORY INFORMATION

Labelling according to EC Directives
Hazard symbols: Xn Harmful
R-phrase(s): R22 Harmful if swallowed. R36/38 Irritating to eyes and skin.
S-phrase(s): S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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.