MATERIAL SAFETY DATA SHEET
ISOPHTHALOYL CHLORIDE

1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Isophthaloyl chloride
Synonyms: Isophthaloyl dichloride; 1,3-Benzenedicarbonyl chloride.
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>99-63-8</td>
<td>Isophthaloyl chloride</td>
<td>98%</td>
<td>202-774-7</td>
</tr>
</tbody>
</table>

3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: white crystals.

Danger! Corrosive. Causes eye and skin burns. May be harmful if absorbed through the skin. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns. Moisture sensitive.

Target Organs: None known.

Potential Health Effects

Eye: Causes eye burns.
Skin: Causes skin burns. May cause severe irritation and possible burns. May be harmful if absorbed through the skin.
Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns.
Inhalation: Causes chemical burns to the respiratory tract. Inhalation of dust may cause respiratory tract irritation.
Chronic: No information found.

4 - FIRST AID MEASURES

Eyes: Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated 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 breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:**
Treat symptomatically and supportively.

### 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:**
Do not use water directly on fire. Use foam, dry chemical, or carbon dioxide. Do not get water inside containers.

### 6 - ACCIDENTAL RELEASE MEASURES

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

**Spills/Leaks:**
Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation. Do not get water inside containers.

### 7 – HANDLING AND STORAGE

**Handling:**
Minimize dust generation and accumulation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use with adequate ventilation. Do not allow contact with water. Discard contaminated shoes. Keep from contact with moist air and steam.

**Storage:**
Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Store protected from moisture.

### 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 ventilation to keep airborne concentrations low.
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 minimize contact with skin.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Crystalline powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>white</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>41 - 43 deg C</td>
</tr>
<tr>
<td>Molecular Formula:</td>
<td>C₈H₄Cl₂O₂</td>
</tr>
<tr>
<td>Molecular Weight:</td>
<td>203.02</td>
</tr>
</tbody>
</table>

10 - STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Chemical Stability:</th>
<th>Stable under normal temperatures and pressures.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions to Avoid:</td>
<td>Dust generation, moisture, excess heat.</td>
</tr>
<tr>
<td>Incompatibilities with Other Materials :</td>
<td>Alcohols, strong oxidizing agents, strong bases, water.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products :</td>
<td>Hydrogen chloride, phosgene, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.</td>
</tr>
<tr>
<td>Hazardous Polymerization :</td>
<td>Has not been reported.</td>
</tr>
</tbody>
</table>

11 - TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>RTECS#:</th>
<th>CAS# 99-63-8: NT2625000</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/LC50:</td>
<td>CAS# 99-63-8: Draize test, rabbit, eye: 40 mg Mild; Oral, mouse: LD50 = 2221 mg/kg; Oral, rabbit: LD50 = 1175 mg/kg; Oral, rat: LD50 = 2200 mg/kg; Skin, rabbit: LD50 = 1410 mg/kg</td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td>CAS# 99-63-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.</td>
</tr>
<tr>
<td>Other:</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

12 - ECOLOGICAL INFORMATION

No information available.
13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.
**RCRA U-Series:** None listed.

14 - TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Shipping Name:</th>
<th>IATA</th>
<th>IMO</th>
<th>RID/ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Corrosive Solid Nos (Isophthaloyl Dichloride)</td>
<td>Corrosive Solid Nos (Isophthaloyl Dichloride)</td>
<td>Corrosive Solid Nos (Isophthaloyl Dichloride)</td>
</tr>
</tbody>
</table>

| Hazard Class: | 8 | 8 | 8 |
| UN Number:    | 1759 | 1759 | 1759 |
| Packing Group:| II | II | II |

15 - REGULATORY INFORMATION

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

- Hazard Symbols: C
- Risk Phrases: R 21 Harmful in contact with skin. R 34 Causes burns.
- Safety Phrases: S 24/25 Avoid contact with skin and eyes. S 7/8 Keep container tightly closed and dry.
- WGK (Water Danger/Protection): CAS# 99-63-8: 2
- Canada - WHMIS: Not available.
- US Federal TSCA: CAS# 99-63-8 is listed on the TSCA inventory.
- 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 Codes**

CAS # 99-63-8: immediate, reactive.

**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:  None of the chemicals in this product are considered highly hazardous by OSHA.

STATE  CAS# 99-63-8 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.