Product Safety Summary Sheet

DuPont™ Isophthaloyl Dichloride

Chemical Identification, Product Identification or Common Name:

CAS number (EC inventory): 99-63-8
CAS Index name: 1,3-Benzenedicarbonyl dichloride
EC Number: 202-774-7
IUPAC name: benzene-1,3-dicarbonyl chloride

Product Uses and Applications:

Isophthaloyl Dichloride (ICL) is used in a variety of performance polymers and fibers, where it impacts flame resistance, temperature stability, chemical resistance, and flexibility. In addition, it is an effective stabilizer for urethane prepolymers due to its ability to scavenge water.

Physical Properties of the Chemical or Product:

Isophthaloyl Dichloride is a clear water-white liquid above its freezing point and a white crystalline solid at room temperature. Isophthaloyl Dichloride has a boiling point of 272 °C and a melting point of 45 °C. Isophthaloyl Dichloride is non-flammable and non-explosive.

Exposure Potential:

Workplace exposure: This substance is classified for acute inhalation. Operations should be designed to prevent exposures.

Workers should follow the recommended safety measures contained within the Safety Data Sheet (SDS) and on any product packaging. Employees should be trained in the appropriate work processes and safety equipment to limit unnecessary exposure to chemical substances. Occupational use of this substance is considered to be safe provided the recommended safety measures in the SDS are followed.
**Consumer exposure:** There is no known consumer use or exposure to the substance. The substance is no longer present once reacted or polymerized.

**Environmental exposure:** Based on closed systems operations, no emissions would be expected. The substance itself is of no immediate concern for the environment (aquatic and terrestrial compartment). However, contact with moisture or water will create Hydrochloric Acid within the environment.

**Health Information:**
*Note: The information contained in this section may be useful to someone handling the pure undiluted substance such as a manufacturer or transporter. Consumers are not likely to come in contact with the pure substance. For more information on health hazards and recommended protective equipment, please refer to the SDS.*

Exposures may affect human health as follows:

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>Oral: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Dermal: Moderately toxic via exposure to skin. Inhalation: Moderately toxic by inhalation.</td>
</tr>
<tr>
<td>Irritation</td>
<td>Skin: Causes severe skin burns. May cause corrosion with pain, ulceration or blisters, cracking or peeling of skin; damage may be permanent. Extremely corrosive and destructive to tissue. Eye: Corrosive, may cause permanent eye injury if not promptly treated. May cause tearing, pain, redness, swelling, ulceration, visual impairment or blindness. Respiratory tract: may cause irritation of the respiratory system</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Not a skin sensitizer.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Based on available data, did not cause genetic damage in animals or cultured bacterial cells.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Based on available data, not considered carcinogenic.</td>
</tr>
<tr>
<td>Toxicity after repeated exposure</td>
<td>Adverse effects from repeated exposure may include kidney effects.</td>
</tr>
<tr>
<td>Toxicity to Reproduction/Development</td>
<td>Based on available data, not classified.</td>
</tr>
</tbody>
</table>
Environmental Information:
Note: The information contained in this section is intended to provide brief and general information of this substance’s environmental impact. The results in the table below refer to testing performed with the non-formulated, undiluted substance. The data does not replace the data given in the SDS. For more information and recommended protective measures please refer to the SDS.

The substance is of no immediate concern to humans indirectly exposed via the environment.

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Toxicity</td>
<td>Moderately toxic to fish; very slightly toxic to algae and aquatic invertebrates.</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>Readily biodegradable. Not persistent.</td>
</tr>
<tr>
<td>Bioaccumulation potential</td>
<td>Not expected to bioaccumulate.</td>
</tr>
</tbody>
</table>

Risk Management:

Workplace Management:
Operations should be designed to prevent exposures because of the toxicity of the substance. Exposure of the substance to moisture or water will cause the formation of strong acids.

Consumer Risk Management:
Because of the closed nature of the uses of Isophthaloyl Dichloride, there are no expected exposures for consumers.

Regulatory Information:
Always refer to the Safety Data Sheet (SDS) for guidance on regulatory restrictions that may govern the manufacture, sale, transportation, use and/or disposal of this chemical or product. Regulations may vary by region, country, state, county, city, or local government. Consult with environmental regulatory agencies for guidance on acceptable disposal practices.

First Aid Information:
For all First Aid or Emergency information, consult the Safety Data Sheet (SDS).

Information Sources:
Data is compiled from a variety of sources, including publicly available documents, internal data and other sources such as, but not limited to, Chemical Safety Reports and Safety Data Sheets (SDS).
Contact Information:
E.I. du Pont de Nemours and Company, Wilmington, DE 19805
USA Customer Service:
Toll Free: 1-800-441-7515
Global: 1-302-774-1000
Hours: 8:00am-7pm EST

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