MATERIAL SAFETY DATA SHEET
2,4-DICHLOROACETOPHENONE

1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: 2,4-Dichloroacetophenone
Synonyms: 1-(2,4-Dichlorophenyl)ethanone
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>2234-16-4</td>
<td>2,4-Dichloroacetophenone</td>
<td>96%</td>
<td>218-780-8</td>
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</tbody>
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3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Harmful if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation. May be harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. May cause irritation of the digestive tract.
Inhalation: May cause respiratory tract irritation. May be harmful if inhaled.
Chronic:

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: 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.

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: Vacuum or sweep up material and place into a suitable disposal container.

7 – HANDLING AND STORAGE

Handling: Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Take precautionary measures against static discharges.

Storage: Store in a cool, dry place. Store in a tightly closed container.

8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 2234-16-4

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

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: Solid

Molecular Formula: C₈H₆Cl₂O

Molecular Weight: 189.04
**10 - STABILITY AND REACTIVITY**

**Chemical Stability:** Stable.

**Conditions to Avoid:** Incompatible materials, dust generation.

**Incompatibilities with Other Materials:** Strong oxidizing agents, bases, alkalies.

**Hazardous Decomposition Products:** Hydrogen chloride, phosgene, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Has not been reported.

**11 - TOXICOLOGICAL INFORMATION**

**RTECS#:** CAS# 2234-16-4: None listed

**LD50/LC50:** RTECS: Not available. Other: Oral, rat: LD50 = 1800 mg/kg Skin, rat: LD50 > 6233 mg/kg Irritation: Skin, rabbit: non-irritating Eye, rabbit: non-irritating

**Carcinogenicity:** 2',4'-Dichloroacetophenone - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Other:** The toxicological properties have not been fully investigated.

**12 - ECOLOGICAL INFORMATION**

**Ecotoxicity:** Fish: Goldfish: LC50 = 17 mg/l; 48H; . Fish: Goldfish: LC50 = 17 mg/l; 96H; .

**Other:** Waste from this product may present long-term environmental hazards. log POW = 3.2.

**13 - DISPOSAL CONSIDERATIONS**

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

**14 - TRANSPORT INFORMATION**

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<th>IATA</th>
<th>IMO</th>
<th>RID/ADR</th>
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**Shipping Name:** Not available

**Hazard Class:** Not available

**UN Number:** Not available

**Packing Group:**

**15 - REGULATORY INFORMATION**

**European/International Regulations**

**European Labeling in Accordance with EC Directives**

**Hazard Symbols:** XN

**Risk Phrases:** R 22 Harmful if swallowed. R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases:  S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)CAS# 2234-16-4: 2

Canada  CAS# 2234-16-4 is listed on Canada's NDSL List

US Federal

TSCA  CAS# 2234-16-4 is listed on the TSCA Inventory.

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.