Material Safety Data Sheet
2,4-Dichlorobenzoic acid

Section 1 - Chemical Product and Company Identification

MSDS Name: 2,4-Dichlorobenzoic acid
Catalog Numbers: 16090-0000, 16090-0010, 16090-0050, 16090-1000, 16090-2500
Synonyms: 2,4-DCBA

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>% EINECS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-84-0</td>
<td>2,4-Dichlorobenzoic acid 98%</td>
<td>200-067-8</td>
</tr>
</tbody>
</table>

Hazard Symbols: XI

Risk Phrases: 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Irritating to eyes, respiratory system and skin.

Potential Health Effects

Eye: Causes eye irritation.
Skin: Causes skin irritation. May be harmful if absorbed through the skin.
Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.
Inhalation: Causes respiratory tract irritation. May be harmful if inhaled.

Chronic:

Section 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.

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Skin:

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. 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.

Section 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.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 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.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

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

Section 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

CAS# 50-84-0:
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.

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.

Section 9 - Physical and Chemical Properties

Physical State: Powder
  Color: white - almost white
  Odor: Not available
  pH: 2.8 (0.36 g/L (15°C))
  Vapor Pressure: Not available
  Viscosity: Not available
  Boiling Point: > 200 deg C @760mmHg (> 392.00°F)
  Freezing/Melting Point: 160 - 164 deg C
  Autoignition Temperature: Not available
  Flash Point: Not available
  Explosion Limits: Lower: Not available
  Explosion Limits: Upper: Not available
  Decomposition Temperature: Not available
  Solubility in water: 0.36 g/l (15 c)
  Specific Gravity/Density:
  Molecular Formula: C7H4Cl2O2
  Molecular Weight: 191.01

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials.
Incompatibilities with Other: Strong oxidizing agents.
Materials
Hazardous Decomposition: Hydrogen chloride, chlorine, carbon monoxide, carbon dioxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information
RTECS#: CAS# 50-84-0: DG6650000

LD50/LC50:

RTECS: CAS# 50-84-0: Oral, mouse: LD50 = 830 mg/kg;

Other: oral rat LD50 > 5000 mg/kg

2,4-Dichlorobenzoic acid - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Carcinogenicity: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated.

Section 12 - Ecological Information
Not available

Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information
IATA: Not regulated.
IMO: Not regulated.
RID/ADR: Not regulated.

Section 15 - Regulatory Information
European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI
Risk Phrases:
R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:
S 22 Do not breathe dust.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)
CAS# 50-84-0: Not available
Canada
CAS# 50-84-0 is listed on Canada's NDSL List

US Federal
TSCA
CAS# 50-84-0 is listed on the TSCA Inventory.

Section 16 - Other Information
MSDS Creation Date: 7/16/1996
Revision #1 Date 5/18/2004
Revisions were made in Sections: General revision.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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