Product Identification

Product Name: CALCIUM FLUORIDE
Synonyms: Calcium difluoride
Chemical Formula: CaF2
Formula Weight: 78.08
Chemical Family:
Integra Product Numbers: C074.10

Hazard Overview

HMIS Rating: 1-0-0-E NFPA Rating: NE
Warning Label: Caution.
May cause irritation. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. May be harmful if swallowed or inhaled.

Components

Component | CAS #   | %
-----------|---------|---
Calcium fluoride | 07789-75-5 | 100

Physical Data

Boiling Point: 2500 °C
Melting Point: 1403 °C
Vapor Pressure: NA
Solubility: Insoluble in water.

Appearance and Odor:
White crystalline powder. Odorless.

Fire and Explosion Data

Flash Point: NA
Auto-ignition Temperature: NA
Flammable Limits (% by volume in air): Upper: NA Lower: NA

Fire Extinguishing Media:
Use extinguishing media appropriate for surrounding fire.

Special Firefighting Procedures:
Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

Unusual Fire and Explosion Hazards:
None identified

Health Hazard Information

Effects of Overexposure
Skin Contact:
Contact may cause skin irritation.
CALCIUM FLUORIDE

MATERIAL SAFETY DATA SHEET

INTEGRA Chemical Company
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)

MSDS Number: C074
Revision Date: 16-Apr-08
Revision No.: 002

Health Hazard Information

Eye Contact:
Contact may be irritating to the eyes.

Ingestion:
Ingestion of large quantities may cause gastrointestinal irritation, nausea and vomiting.

Inhalation:
Inhalation may irritate the nose, throat and upper respiratory tract.

Chronic Effects of Overexposure:
Mottling of teeth, osteosclerosis, fluorosis.

Exposure Limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium fluoride</td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>(as F) 2.5 mg/m³</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

Toxicity Data:

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 (intraperitoneal, mouse)</th>
<th>LD50 (oral, rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium fluoride</td>
<td>2638 mg/kg</td>
<td>4250 mg/kg</td>
</tr>
</tbody>
</table>

Medical Conditions Generally Aggravated by Exposure:
None Identified

Target Organs:
None Identified

Reproductive Effects:
None Identified

Carcinogenicity:
None Identified

Component | NTP Listing | IARC Listing | OSHA Regulated
----------|-------------|--------------|----------------
Calcium fluoride | No listing  | No listing   |               

Emergency First Aid Procedures

Skin Contact:
Wash with soap and water. Seek medical attention if irritation develops.

Eye Contact:
Flush eyes with water. If irritation persists, seek medical attention.

Inhalation:
Remove to fresh air.

Ingestion:
Give victim large amounts of water and induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

Additional First Aid and Treatment Notes:
No information available

Reactivity Data

Stability:
Stable
Reactivity Data

Stability: Stable
Hazardous Polymerization: Will Not Occur
Incompatibles: Incompatible with strong acids.
Decomposition Products: Fluoride fumes, irritating and toxic fumes and gases.
Conditions to Avoid: Excessive heat.

Spill and Disposal Procedures

Spill and Leak Procedures: Prevent spread of spill. Sweep or scoop into suitable disposal container. Avoid dusting.
Disposal Procedures: Dispose in accordance with all Local, State and Federal regulations.

Protective Equipment

Ventilation: Use general or local exhaust ventilation to meet TLV and PEL requirements.
Respiratory Protection: If ventilation controls do not limit airborne concentrations below PEL or TLV values, an approved respirator must be worn.
Skin and Eye Protective Equipment: Safety goggles, protective clothing and gloves. Maintain an eyewash station and safety shower nearby.

Storage and Handling Precautions

Storage Area: GENERAL
Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Protect containers from physical damage.

Transportation Information

Regulated Material domestic ground transportation (reference: CFR Title 49, Transportation)
Proper Shipping Name:
UN or NA Identification number: Hazard Class and Label:
Packing Group: Subsidiary Risk and Label:

Regulated Material via Air Transportation (reference: ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air)
Proper Shipping Name:
UN Identification Number: Hazard Class and Label:
Packing Group: Subsidiary Risk and Label:
Transportation Information

Packing Instruction | Max net qty per package
---|---
Passenger Aircraft: | |
Cargo Aircraft: | |

Regulatory Information

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA Inventory</th>
<th>CERCLA RQ</th>
<th>SARA EHS TPQ</th>
<th>SARA 313 Toxic Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium fluoride</td>
<td>✓</td>
<td>lbs</td>
<td></td>
<td>de minimus</td>
</tr>
</tbody>
</table>

SARA Hazard Categories:
- Acute
- Chronic
- Flammability
- Pressure
- Reactivity

Clean Air Act Categories:
- SOCMI
- HAP
- Volatile HAP
- Organic HAP
- Ozone Depleting

MSDS Revision History:
- 002 - Updated Header Information

NE = Not established, NA = Not applicable or Not available

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***** END OF MSDS *****