

## PRODUCT SAFETY DATA SHEET

## CALCIUM CHLORIDE, FLAKE

**A. GENERAL INFORMATION**

|  |                                |  |  |
|--|--------------------------------|--|--|
| TRADE NAME (COMMON NAME)<br>FLAKE CALCIUM CHLORIDE   |                                | <input checked="" type="checkbox"/> C.A.S. NO. | <input type="checkbox"/> GENERAL PRODUCT CODE #<br>10043-52-4 (anh.) |
| CHEMICAL NAME AND/OR SYNONYM<br>Calcium Chloride, Dihydrate  |                                |  |  |
| FORMULA<br>CaCl <sub>2</sub> · 2H <sub>2</sub> O   |                                | MOLECULAR WEIGHT<br>147.02                     |  |
| ADDRESS (No., STREET, CITY, STATE AND ZIP CODE)<br>GENERAL CHEMICAL CORPORATION<br>90 East Halsey Road<br>Parsippany, N.J. 07054 |                                |  |  |
| CONTACT<br>Manager - Product Safety  | PHONE NUMBER<br>(201) 515-1840 | LAST ISSUE DATE<br>May, 1990                   | CURRENT ISSUE DATE<br>September, 1994                                |

**B. FIRST AID MEASURES**

|  |  |
|--|--|
| EMERGENCY PHONE NUMBER<br>(800) 631-8050   |  |
| <p><b>EYES:</b> Flush promptly with plenty of water, continuing for at least 15 minutes. Get medical attention.</p> <p><b>INHALATION:</b> Remove to fresh air.</p> <p><b>SKIN:</b> Wash with plenty of soap and water.</p> <p><b>INGESTION:</b> If conscious, immediately give 2 to 4 glasses of water, and induce vomiting by touching finger to back of throat.</p> <p>Get medical attention for irritation, ingestion, or discomfort from inhalation.</p> |  |

**C. HAZARDS INFORMATION**

## HEALTH

|   |                            |
|---|----------------------------|
| <b>INHALATION</b><br>Dust or mist inhalation may irritate nose, throat and lungs.   |                            |
| <b>INGESTION</b><br>Low in toxicity. LD <sub>50</sub> (rat): 1.4 g/kg.*<br>- Reference (e). May irritate gastrointestinal tract. *anhydrous basis   |                            |
| <b>SKIN</b><br>May cause skin irritation. Under conditions of prolonged contact or when moisture is present, superficial burns may result. Contact with abraded skin or cuts can cause severe necrosis. |                            |
| <b>EYES</b><br>May irritate or burn eyes.   |                            |
| PERMISSIBLE CONCENTRATION: AIR<br>(SEE SECTION J)<br>None established by OSHA.<br>Also, no TLV established by ACGIH.  | <b>BIOLOGICAL</b><br>None. |
| <b>UNUSUAL CHRONIC TOXICITY</b><br>None.  |                            |

**C. HAZARDS (Cont.)**

**FIRE AND EXPLOSION**

|   |                                   |   |
|---|-----------------------------------|---|
| FLASH POINT<br>Not Flammable<br><input type="checkbox"/> OPEN CUP <input type="checkbox"/> CLOSED CUP | AUTO IGNITION TEMPERATURE<br>N.A. | FLAMMABLE LIMITS IN AIR (% BY VOL.)<br>LOWER - N.A.                      UPPER - N.A. |
|---|-----------------------------------|---|

UNUSUAL FIRE AND EXPLOSION HAZARDS

None.

**D. PRECAUTIONS/PROCEDURES**

FIRE EXTINGUISHING AGENTS RECOMMENDED

N.A.

FIRE EXTINGUISHING AGENTS TO AVOID

N.A.

SPECIAL FIRE FIGHTING PRECAUTIONS

None.

VENTILATION

**Local exhaust:** In packaging and unloading areas, over open processing equipment, and any other places where dusty or misty condition prevails.

**Natural ventilation:** Adequate for other areas.

NORMAL HANDLING

Avoid contact with eyes, skin, or clothing. Avoid breathing dust or mist. Use good personal hygiene and housekeeping.

STORAGE

Store in a cool, dry area. Prolonged storage may cause product to cake and become wet from atmospheric moisture.

SPILL OR LEAK (ALWAYS WEAR PERSONAL PROTECTIVE EQUIPMENT - SECTION E)

Shovel up dry chemical and place in metal drum with a cover. Cautiously spray residue with plenty of water.

SPECIAL: PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS

**SIGNAL WORD - WARNING!**

**E. PERSONAL PROTECTIVE EQUIPMENT**

RESPIRATORY PROTECTION

For dusty or misty condition, wear NIOSH-approved dust or mist respirator.

EYES AND FACE

For dusty or misty condition, or when handling solutions where there is reasonable probability of eye contact, wear chemical safety goggles and hat. Under these conditions, do not wear contact lenses.

HANDS, ARMS, AND BODY

As a minimum, wear long-sleeve shirt and trousers, boots and gloves for routine product use. Cotton gloves permitted for dry product, impervious gloves when using solutions.

OTHER CLOTHING AND EQUIPMENT

Eye-wash facility.

**F. PHYSICAL DATA**

|   |  |  |  |
|---|--|--|--|
| MATERIAL IS (AT NORMAL CONDITIONS):<br><input type="checkbox"/> LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GAS<br><input type="checkbox"/> _____ |  | APPEARANCE AND ODOR<br>Small white flakes; odorless.   |  |
| BOILING POINT                      Unknown °C<br>MELTING POINT                      176 °C  | SPECIFIC GRAVITY<br>(H <sub>2</sub> O = 1)<br>0.835    - Reference (b) | VAPOR DENSITY<br>(AIR = 1)<br>N.A.: water vapor only.  |  |
| SOLUBILITY IN WATER<br>(% by Weight)<br>42 (anhydrous) @ 20°C   | pH<br>Neutral or slightly alkaline<br>- Reference (c)                  | VAPOR PRESSURE<br>(mm Hg at 20°C) <input type="checkbox"/> (PSIG) <input type="checkbox"/><br>N.A. |  |
| EVAPORATION RATE<br>(Butyl Acetate = 1) <input type="checkbox"/> (Ether = 1) <input type="checkbox"/><br>N.A.   | % VOLATILES BY VOLUME<br>(At 20°C)<br>N.A.                             |  |  |

**G. REACTIVITY DATA**

|   |                             |
|---|-----------------------------|
| STABILITY<br><input type="checkbox"/> UNSTABLE <input checked="" type="checkbox"/> STABLE   | CONDITIONS TO AVOID<br>N.A. |
| INCOMPATIBILITY (MATERIALS TO AVOID)<br>Sulfuric acid: yields hydrogen chloride gas, which is corrosive, irritating, and reactive. Water-reactive materials, such as sodium: cause an exothermic reaction. Methyl vinyl ether: starts runaway polymerization reaction -- Reference (d). Zinc as in galvanized iron: yields hydrogen gas with solutions, which may explode under these conditions. -- Reference (d). |                             |
| HAZARDOUS DECOMPOSITION PRODUCTS<br>None.   |                             |
| HAZARDOUS POLYMERIZATION<br><input type="checkbox"/> MAY OCCUR <input checked="" type="checkbox"/> WILL NOT OCCUR   | CONDITIONS TO AVOID<br>N.A. |

**H. HAZARDOUS INGREDIENTS (Mixtures Only)**

| MATERIAL OR COMPONENT / C.A.S. # | WT. % | HAZARD DATA (SEE SECT. J) |
|----------------------------------|-------|---------------------------|
| N.A.                             |       |                           |

**I. ENVIRONMENTAL**

|   |  |   |                   |
|---|--|---|-------------------|
| DEGRADABILITY/AQUATIC TOXICITY  |  | OCTANOL/WATER PARTITION COEFFICIENT<br>N.D. |                   |
| Aquatic toxicity: TLm96: over 1000 ppm (anhydrous) -- Reference (a).  |  |   |                   |
| EPA HAZARDOUS SUBSTANCES<br>(CLEAN WATER ACT SEC. 311)  | <input type="checkbox"/> YES<br><input checked="" type="checkbox"/> NO | IF SO REPORTABLE QUANTITY: -- #             | 40 CFR<br>116-117 |
| WASTE DISPOSAL METHODS (DISPOSER MUST COMPLY WITH FEDERAL, STATE AND LOCAL DISPOSAL OR DISCHARGE LAWS)  |  |   |                   |
| Treatment or disposal of waste generated by use of this product should be reviewed in terms of applicable federal, state and local laws and regulations. Users are advised to consult with appropriate regulatory agencies before discharge, treatment or disposal. |  |   |                   |
| RCRA STATUS OF UNUSED MATERIAL IF DISCARDED<br>Not a "hazardous waste"  |  | HAZARDOUS WASTE NUMBER: (IF APPLICABLE)     | 40 CFR<br>261     |

**J. REFERENCES**

|  |                                      |            |
|--|--------------------------------------|------------|
| PERMISSIBLE CONCENTRATION REFERENCES   |                                      |            |
| None.  |                                      |            |
| REGULATORY STANDARDS   | D.O.T. CLASSIFICATION: Not regulated | 49 CFR 173 |
| None.  |                                      |            |
| GENERAL  |                                      |            |
| (a) NIOSH, <b>Registry of Toxic Effects of Chemical Substances</b> , 1979, Accession No. EV 98 00 000.<br>(b) Weast, R.C. editor, <b>CRC Handbook of Chemistry and Physics</b> , 60th Edition, 1979-80, CRC Press, Inc., Boca Raton 33431.<br>(c) Hawley, G.N., editor, <b>Condensed Chemical Dictionary</b> , 9th Edition, 1977, Van Nostrand Reinhold, NYC.<br>(d) Bretherick, L., <b>Handbook of Reactive Chemical Hazards</b> , 2nd Edition, 1979, Butterworths, Boston.<br>(e) General Chemical Corporation tests, unpublished. (The medium was a solution of 25 g/100 ml water.) |                                      |            |

**K. ADDITIONAL INFORMATION**

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| None. |
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PSDS FILE No.- GC-1002

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