

**Product Name:** POLYAMINE CALCIUM  
**Product ID # 7**

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**Section I MANUFACTURER'S INFORMATION**


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|-------------------------------|-----------------------------|-----------------|
| Manufacturer's Name & Address | Emergency Telephone Number: | 1-800-424-9300  |
| Verdesian Life Sciences       | Number for Information:     | 1-800-868-6446  |
| 12222 Ave 352                 | Date Prepared:              | January 9, 1996 |
| Visalia, CA 93291             | Revised:                    | January 4, 2008 |
|                               | Reviewed:                   | June 1, 2010    |

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**Section II PRODUCT IDENTIFICATION**


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|------------------|---|
| PRODUCT NAME:    | POLYAMINE CALCIUM                                       |
| COMMON SYNONYMS: | Calcium Chloride  |
| HEMICAL FAMILY:  | Calcium Chloride CaCl <sub>2</sub> , Calcium Amino Acid |
| FORMULA:         | CaCl <sub>2</sub> Calcium Chloride                      |
| FORMULA WT.:     | N/A   |
| NIOSH/RTECS NO.: | GL8900000   |
| HEALTH           | - 2 Moderate  |
| FLAMMABILITY     | - 0 None  |
| REACTIVITY       | - 0 None  |
| CONTACT          | - 2 Moderate  |

U.S. PRECAUTIONARY STATEMENT

WARNING: Causes irritation. Harmful if swallowed. Avoid contact with eyes, skin, clothing. Keep in tightly closed container. Use with adequate ventilation. Wash thoroughly after handling.

INTERNATIONAL STATEMENT

Harmful if swallowed. Irritating to respiratory system and skin. After contact with skin, wash immediately with plenty of soap and water. If irritation occurs, get medical attention.

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**Section III PHYSICAL DATA**


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|-------------------------------------|---------------------------------|
| Boiling Point:                      | @ 760 mm Hg 115.5 C             |
| Melting Point:                      | 653 C (1207 F) Decomposes       |
| Vapor Pressure (MMGH):              | N/A                             |
| Vapor Density (AIR=1):              | N/A (AT 760 MM HG)              |
| Specific Gravity: (H2O=1):          | 1.71                            |
| Evaporation Rate:                   | N/A                             |
| Solubility (H2O):                   | Appreciable (10%)               |
| % Volatile by Volume:               | 0 (21 C)                        |
| pH:                                 | 8 @ 100 GM/L (Range 4-5)        |
| Physical State:                     | Liquid                          |
| Coefficient water/oil distribution: | N/A                             |
| Appearance & Odor:                  | Light Brown liquid, slight odor |

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**Section IV FIRE AND EXPLOSION DATA**


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|--|--|---------------------------|-----|
| Flash Point (closed cup):                        | N/A  | Auto Ignition Temperature | N/A |
| Flammable Limits:                                | Upper - N/A  | Lower - N/A               |     |
| Fire Extinguishing Media:                        | Extinguishing Media appropriate for surrounding fire.  |                           |     |
| Special Fire Fighting Procedures:                | Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. |                           |     |
| Unusual Fire & Explosion Hazards:                | Decomposes at melting point  |                           |     |
| Explosion Data-Sensitivity to mechanical impact: | None   |                           |     |
| Explosion Data-Sensitivity to static discharge   | None   |                           |     |

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**Section V HEALTH AND HAZARD DATA**


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|---|---|
| Threshold limit value (TLV/TWA):            | 1 mg/m3   |
| TLV is for Calcium, dusts and mists, as CU. |   |
| Short-term exposure limit (stel):           | Not Established.  |
| Permissible exposure limit (pel):           | 1 mg/m3   |
| Carcinogenicity:                            | None Identified.  |
| Productive effects:                         | None Identified.  |
| Effects of overexposure:                    | None Identified.  |
| Inhalation:                                 | Inhalation of mist may cause irritation of the respiratory tract. |
| Skin contact:                               | Irritation  |
| Eye contact:                                | Irritation  |
| Skin absorption:                            | None identified.  |
| Ingestion:                                  | Nausea, vomiting, diarrhea, abdominal distress.                   |

Chronic effects: No known chronic effects.  
Target organs: Eyes, skin and blood.  
Medical conditions generally aggravated by exposure: None Identified.  
Primary routes of entry: Inhalation, ingestion, skin contact, and eye contact.

**EMERGENCY FIRST AID PROCEDURES**

Ingestion: Call physician. If swallowed, if conscious give large amounts of water. Induce vomiting.  
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.  
Skin contact: In case of contact, flush skin with water.  
Eye contact: In case of eye contact, immediately flush with plenty of water for at least fifteen minutes.

**SARA/TITLE III HAZARD CATEGORIES AND LISTS**

|              |                |                                   |
|--------------|----------------|-----------------------------------|
| Acute: Yes   | Chronic: Yes   | Flammability: No                  |
| Pressure: No | Reactivity: No | Extremely hazardous substance: No |

**Section VI REACTIVITY DATA**

|                           |  |
|---------------------------|--|
| Stability:                | Stable   |
| Hazardous Polymerization: | Will not occur   |
| Conditions to avoid:      | Heat   |
| Incompatibles:            | Strong reducing agents, strong oxidizing agents magnesium. |

**Section VII SPILL & DISPOSAL PROCEDURES**

Steps to be taken in the event of a spill or discharge:  
Wear self-contained breathing apparatus and full protective clothing. With clean shovel, carefully place material into clean, dry container and cover, remove from area. Flush spill area with water.  
Disposal procedure:  
Dispose in accordance with all applicable federal, state, and local environmental regulations.

**Section VIII INDUSTRIAL PROTECTIVE EQUIPMENT**

Ventilation requirements:  
Ventilation is not usually required for calcium chloride solutions. Avoid creation of mist or spray, if present provide local exhaust systems and wear NIOSH/MSHA approved respiratory protection if airborne exposure is possible.  
Respiratory:  
Provide mist protection where applicable. Use NIOSH/MSHA approved respirators.  
Eye/skin protection:  
Safety goggles. uniform, rubber gloves are recommended.

**Section IX TRANSPORTATION INFORMATION**

Special Shipping Notes: This product is not regulated under national or international transport regulations.

**Section X STORAGE AND HANDLING PRECAUTIONS**

Storage requirements:  
Keep container tightly closed. Suitable for any general chemical storage area. Isolate from incompatible materials.

**Section XI ADDITIONAL INFORMATION**

Calcium chloride is not classified as a hazardous material under regulations of the hazardous materials transportation act. Dot labels, placarding and marking are not required.  
The food, drug, and cosmetic act (FDA) designated calcium chloride as a "multiple-purpose gras food substance" (21 CFR 184. 1193) and a general purpose food additive (21 CFR 582.1193) when used in accordance with good manufacturing practice (21 CFR 184.1 (b) 1 ).  
OSHA standard 29 CFR 1910. 1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material request that you, and it is your legal duty to, make all information in this material safety data sheet available to your employees.

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DATE: January 9, 1996

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