

# GRANICRETE INTERNATIONAL, INC.

## Material Safety Data Sheet

### 1. Chemical Product and Company Identification

**Granicrete**  
3420 S. 7<sup>th</sup> Street, Suite 6  
Phoenix, Arizona 85040  
Telephone Number: (602) 438-9464  
24-Hour Emergency Telephone Number: PERS: 1-800-633-8253

**Product Name:** Forming Mix Activator  
**Chemical Name:** Calcium Chloride  
**Common Names/Synonyms:** Anhydrous Calcium Chloride, Prilled Calcium Chloride, Calcium Dichloride  
**HMIS Classification:**     **H**   **F**   **R**  
                                      1   0    1

**Prepared By:** Granicrete Loss Control  
**Preparation Date:** April 05, 2002  
**Review Dates:** April 05, 2002

### 2. Composition, Information on Ingredients

Hazardous Components	CAS #	OSHA PEL	ACGIH TLV OTHER	mm HG @ TEMP	WT %
Calcium Chloride	10043-52-4	N/A	N/A	N/A	N/A

### 3. Physical / Chemical Characteristics

**Boiling Point:** 1600 deg C; 2912 deg F  
**Melting Point:** 782 deg C; 1440 deg F  
**Vapor Density:** Heavier than air  
**Appearance & Odor:** Colorless to white, deliquescent crystals.  
**Molecular Weight:** 110.986

**Specific Gravity (H2O=1):** 2.15 @ 25 deg C  
**pH:** 9-10  
**Evaporation Rate:** Slower than ether  
**Solubility In Water:** Approx. 40 weight % @ 20 deg C w/ evolution of heat.

### 4. Fire and Explosion Hazard Data

**Flash Point:** Negligible Fire  
**Auto Ignition Temperature:** Negligible Fire Hazard  
**Flammable Limits in Air by Volume - Lower:** N/A     **Upper:** N/A  
**Extinguishing Media:** Dry chemical, carbon dioxide, water spray or regular foam. (1990 Emergency Response Guidebook, DOT P 5800.5).  
**Special Firefighting Procedures:** Move containers from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Extinguish fire using agent suitable for type of surrounding fire. Do not use water directly on material. Avoid breathing corrosive vapors; keep upwind.  
**Unusual Fire and Explosion Hazards:** Negligible Fire Hazard when exposed to heat or flame.

### 5. Reactivity Data

**Stability:** Stable  
**Conditions to avoid:** Anhydrous form reacts exothermically with water. Flammable, poisonous gases may accumulate in tanks and hopper cars. May ignite combustibles (wood, paper, oil, etc.).  
**Incompatibility (Materials to Avoid):** Boric Acid + Calcium Oxide, Bromine Trifluoride, Furan-2-Peroxyacetic Acid, Metals (corrosive in the presence of moisture), Methyl Vinyl Ether, Zinc.  
**Hazardous Decomposition or Byproducts:** Thermal decomposition products may include toxic and corrosive fumes of chlorine and hydrogen chloride.  
**Hazardous Polymerization:** Will not occur.

## 6. Health Hazard Data

**Eye Contact Health Risks and Symptoms of Exposure: Acute:** Direct contact with the dust may cause irritation with redness and pain and superficial injury. Lacrimation and eye discharge may also occur. Direct contact of calcium chloride in solution is essentially innocuous. Application of 2 – 10% solution to rabbit eyes caused no permanent injury. **Chronic:** Repeated or prolonged exposure may result in conjunctivitis.

**Skin Absorption Health Risks and Symptoms of Exposure: Acute:** Single, short exposure not likely to cause significant skin irritation. However, direct contact with dust or solutions may cause severe irritation. Erythema, blistering, exfoliation, ulceration, necrosis, and scarring. The degree of irritation depends on the concentration and duration of contact. **Chronic:** Effects depend on concentration and duration of exposure. Repeated or prolonged contact with corrosive substances may result in dermatitis or effects similar to those in acute exposure.

**Ingestion Health Risks and Symptoms of Exposure: Acute:** May cause abdominal spasms and nausea. Overdoses may cause gastro-intestinal tract or cardiovascular irregularities. The fatal dose is estimated to be about 30 gms. **Chronic Exposure:** No adverse effects have been reported from its use as a food additive.

**Inhalation Health Risks and Symptoms of Exposure: Acute:** Inhalation of dust may cause irritation with coughing and shortness of breath. **Chronic:** Reported cases of burning sensation and pain in the nasal cavities. Occasional nose bleed, and tickling in the throat. Perforation of the nasal septum has been reported.

**Summary of Chronic Health Hazards:** N/A

**Signs and Symptoms of Exposure:** N/A

**Effects of Overexposure:** N/A

**Medical Conditions Generally Aggravated by Exposure:** N/A

**Note to Physicians:** N/A

**Carcinogenicity:**

**NTP?** No

**IARC Monographs?** No

**OSHA Regulated?** No

**Emergency and First Aid Procedures: Ingestion:** Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. If vomiting occurs, keep head lower than hips to prevent aspiration. **Inhalation:** Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. **Skin:** Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). In case of burns, cover area with sterile, dry dressing. Bandage securely, but not too tightly. GET MEDICAL ATTENTION IMMEDIATELY. **Eyes:** Wash eyes immediately with large amounts of water or normal saline solution, occasionally lifting upper and lower lids until no evidence of chemical remains (approx. 15-20 minutes). GET MEDICAL ATTENTION IMMEDIATELY.

## 7. Precautions for Safe Handling and Use

**Steps to be taken in Case Material is Released or Spilled:** Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard and deny entry.

**Waste Disposal Method:** Observe all federal, state, and local regulations when disposing of this substance.

**Precautions to be taken in Handling and Storage:** Observe all federal, state, and local regulations when storing this substance. Store in a tightly closed container. Store away from incompatible substances.

**Other Precautions:** N/A

## 8. Control Measures

**Respiratory Protection:** Avoid breathing dust. If necessary, use only MSHA- or NIOSH-approved respirators.

**Ventilation:** N/A

**Protective Clothing:** Employees must wear protective clothing, shoes and equipment to prevent repeated or prolonged skin contact with this substance.

**Eye Protection:** Employees must wear safety glasses with splash shields or safety goggles to prevent contact with this substance.

**Other Protective Clothing or Equipment:** Where there is any possibility that an employee's eyes and/or skin may be exposed to this substance, the employer should provide an eye wash fountain and quick drench shower within the

immediate work area for emergency use.

**Work / Hygienic Practices:** Wash hands with soap and water before eating, drinking, smoking, or using toilet facilities.

**NOTE:** The above information is based on current formulation and information available at this time. Since conditions of use are outside our control we make no warranties, expressed or implied, and assume no responsibility or liability in connection with any use of this information.