



Hummel Croton Inc.  
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In Case Of Emergency Call Chemtrec®  
(U.S.) (800) 424-9300  
(International) (703) 527-3887

## Calcium Silicide Safety Data Sheet

### 1. Product and Company

Product name: Calcium Silicide  
Synonym: Calcium Silicon Alloy  
CAS-No.: 12013-56-8  
Company: Hummel Croton Inc.  
10 Harmich Rd.  
South Plainfield, NJ 07080  
Telephone: 908-754-1800  
Fax: 908-754-1815

HMIS Rating	
Health	1
Flammability	3
Reactivity	2
Personal Protection	E

Emergency telephone number

Emergency Phone #: Chemtrec US: 800-424-9300  
Chemtrec International: 703-527-3887

### 2. Hazards

GHS Classification Substances and mixtures, which in contact with water, emit flammable gases (Category 2), H261

#### GHS Label elements

Pictogram(s)



Signal word **DANGER**

Hazard statement(s)

H261 In contact with water releases flammable gases.

#### Precautionary statement(s)

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231 + P232 Handle under inert gas. Protect from moisture.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P335 + P334 Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P402 + P404 Store in a dry place. Store in a closed container.

P501 Dispose of contents/ container to an approved waste disposal plant.

#### Hazards not otherwise classified (HNOC) or not covered by GHS

None

### 3. Composition/Ingredients

#### Substance

Formula:  $\text{CaSi}_2$

Molecular weight: 96.25

CAS-No.: 12013-56-8

Material	CAS	%	OSHA	ACGIH
Calcium Silicide	12013-56-8	100%	Not Established	Not Established

### 4. First Aid

**First Aid For Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**First Aid For Skin:** In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.

**First Aid For Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**First Aid For Ingestion:** If swallowed, call a physician immediately.

### 5. Fire Data

Flammability: Non-Flammable

Flash Point: Not Applicable

Auto Ignition: 540°C (1004°F)

Flammable Limits: Not Applicable

Extinguishing Media: Class D Fire: Use dry powder, dry sand or CO<sub>2</sub> to smother fire.

Fire Fighting Procedure: If material cannot be smothered, fire could be isolated and allowed to burn itself out. Do not disturb burning metal while extinguishing fire.

Fire/Explosion Hazards: Lump material is not combustible. When suspended in air, dust of calcium-silicon alloys can be readily ignited, propagate flames, and generate considerable pressure or explode. The degree of combustibility in air is dependent upon particle size, oxide coating, and quantity of dispersion. The hazard increases with particle fineness. Avoid generating sparks or ignition sources in areas of high airborne dust levels or in areas with accumulated dust. Thoroughly clean areas or equipment to be maintained prior to dust disturbing or ignition source generation activities. MINIMUM IGNITION ENERGY: 115 millijoules

## 6. Accidental Release

Spill Or Leak Procedures: Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Collect wash water for approved disposal. Keep from entering water or ground water.

## 7. Handling And Storage

Storage Temperatures: Store at ambient temperature.

Shelf Life: Unlimited in tightly sealed container

Special Sensitivity: None

Handling/Storage Precautions: Avoid breathing dust. Avoid getting in eyes or on skin. Wash thoroughly after handling. Store in a dry place away from direct sunlight, heat and incompatible materials. Reseal containers immediately after use. Store away from food or beverages.

## 8. Exposure Controls/Personal Protection

Eye Protection: Safety glasses or goggles.

Skin Protection: PVC gloves with impervious boots, apron or coveralls. Wash hands and face before eating, drinking or using tobacco.

Respirator: Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator must be worn.

Ventilation: Use local ventilation if dusting is a problem, to maintain air levels below the recommended exposure limit.

Additional Measures: Emergency showers and eye wash stations should be available. Educate and train employees in the safe handling of hazardous chemicals.

## 9. Physical And Chemical Properties

Physical Form: Solid coarse granular material

Color: Gray metallic

Odor: Odorless

Molecular Weight: 96.25 g/mol

Boiling Point: N/A

Melting/Freezing Point: 700-900°C

Solubility In Water: Insoluble

Specific Gravity: 2.0-2.5

## 10. Stability And Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur.  
Incompatibilities: Moisture or acids.  
Instable Conditions: Excessive temperatures (see incompatibilities).  
Decomposition Temperature: Auto-ignition temperature 540°C (1004°F)  
Decomposition Products: Oxides of calcium and silicon. Reacts with water to form hydrogen gas.

## 11. Toxicological Information

RTECS Number: Not established.  
Routes Of Exposure: Eye contact. Ingestion. Inhalation. Skin contact.  
Toxicity Data: To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.  
Chronic Toxic Effects: Not known to cause any long term harmful health effects.  
Acute Toxic Effects: Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound

## 12. Ecological Information

Ecotoxicity: Not available at this time.

## 13. Disposal Considerations

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental regulations.

## 14. Transportation Information

Proper Shipping Name: Calcium Silicide  
UN Number: 1405  
Class: 4.3  
P.G.: II  
Label Code: 4.3

## 15. Regulatory Information

OSHA Status: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.  
TSCA Chemical Inventory: This compound is on the EPA Toxic Substance Control Act (TSCA) Inventory List  
California Proposition 65: To the best of our knowledge, this product contains no levels of listed substances which the state of California has found to cause cancer, birth defects, or other reproductive effects.  
SARA 313 Title III:  
Section 320 Extremely Hazardous Substances: None  
Section 311/312 Hazardous Categories: None  
Section 313 Toxic Chemicals: None

## **16. Other Information**

Prepared By: Michael Richard

Date: June 3, 2015

Reason For Issue: GHS Compliance

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