



Hummel Croton Inc.
10 Harmich Road
South Plainfield, NJ 07080

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MSDS



Calcium Silicide

In case of Emergency Call Chemtrec®
(U.S.) (800)-424-9300
(International) (703)-527-3887

Section I. Chemical Product and Company Identification

Supplier:

Hummel Croton Inc.
10 Harmich Road
South Plainfield, NJ 07080
(908)-754-1800

Chemical Name: Calcium Silicide

Synonym: Calcium Silicon Alloy

CAS Number: 12013-56-8

Chemical Formula: CaSi₂

HMIS Rating

Health	1
Flammability	3
Reactivity	2
Personal Protection	E

Section II. Composition and Information on Ingredients

Material	CAS#	%	OSHA	ACGIH
Silicon	7440-21-3	60-65%	15mg/m ³	10mg/m ³
Calcium	7440-70-2	28-32%	5mg/m ³	2mg/m ³
Iron	7439-89-6	1-8%	10mg/m ³ *	5mg/m ³ *

*These values are for iron oxide fume

Section III Hazards Identification:

Acute Health 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.

Chronic Health Effects: This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.

Acute Health Effects: This product is not listed by NTP, IARC or regulated as a Carcinogen by OSHA.

Section IV. First Aid Measures

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.

Section V. Fire and Explosion Data

Flammability: Non-Flammable

Flash Points: Not Applicable

Auto-Ignition: (Dust Layer): 1004°F(540°C)

Flammable Limits: Not Applicable

Extinguishing Media: Class D Fire: Use dry powder, dry sand or CO₂ 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 the 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

Section VI. Accidental Release Measures

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

Section VII. Handling and Storage

Storage Temperatures: Store at ambient temperature

Shelf Life: Unlimited in tightly closed 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 (see Section X). Reseal containers immediately after use. Store away from food and beverages.

Section VIII. Exposure Controls/Personal Protection

Eye Protection: Safety glasses or goggles.

Skin Protection: PVC gloves with impervious boots, apron or coveralls. Employees should wash their hands and face before eating, drinking or using tobacco products.

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

Section IX. Physical and Chemical Properties

Physical Form: Solid coarse granular material

Color: Grey Metallic

Odor: Odorless

Molecular Weight: 96.25

Boiling Point: Not Applicable

Melting/Freezing Point: 700-900°C

Solubility In Water: Insoluble

Specific Gravity: 2.0-2.5

Section X. Stability And Reactivity

Stability: Stable

Hazardous Polymerization: Will Not occur

Incompatibilities: Moisture and Acids

Instable Conditions: Excessive temperatures (see Incompatibilities).

Decomposition Temperature: Auto Ignition Temperature 1004°F (540°C)

Decomposition products: Oxides of Calcium, Silicon and Iron

Section XI. 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: This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.

Acute Toxic Effects: Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucous 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.

Section XII. Ecological Information

Ecotoxicity: Not available at this time.

Section XIII. Disposal Considerations

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

Section XIV. Transportation Information

Proper Shipping Name: Calcium Silicide

UN Number: 1405

Class: 4.3

P.G.: II

Label Code: 4.3

Section XV. 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 302 Extremely Hazardous Substances: None

Section 311/312 Hazardous Categories: None

Section 313 Toxic Chemicals: None

Section XVI. Other Information

Prepared By: Mark Dugan

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