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

Emergency telephone number
Emergency Phone #: Chemtrec US: 1-800-424-9300
ChemTel International: +1-813-248-0585

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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Formula</th>
<th>Molecular weight</th>
<th>CAS-No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Silicide</td>
<td>CaSi₂</td>
<td>96.25</td>
<td>12013-56-8</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS</th>
<th>%</th>
<th>OSHA</th>
<th>ACGIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Silicide</td>
<td>12013-56-8</td>
<td>100%</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

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 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 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)

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: March 20, 2018
Reason For Issue: Emergency Contact Update

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