CALCIUM, Turnings

MATERIAL SAFETY DATA SHEET

INTEGRA Chemical Company
1216 6th Ave N
Kent WA 98032
Phone: 253-479-7000
24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)

Product Identification

Product Name: CALCIUM, Turnings
Synonyms: 
Chemical Formula: Ca
Formula Weight: 40.06
Chemical Family: Metal
Integra Product Numbers: C043.50

Hazard Overview

HMIS Rating: 1-2-2-C  NFPA Rating: 3-1-2-W
Warning Label:
Warning!
Flammable solid. Keep away from heat sparks and open flame. Dusts may form flammable or explosive mixtures with air. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Contact with moisture generates flammable hydrogen gas. Keep away from water and moist air.

Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>07440-70-2</td>
<td>100</td>
</tr>
</tbody>
</table>

Physical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>1440 °C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>850 °C</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.54 Water=1</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NA</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>1.4 Air = 1</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Reacts violently with water.</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Silvery to gray granules or turnings.</td>
</tr>
</tbody>
</table>

Fire and Explosion Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>NA</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>NA</td>
</tr>
<tr>
<td>Flammable Limits (% by volume in air)</td>
<td>Upper: NA Lower: NA</td>
</tr>
</tbody>
</table>

Fire Extinguishing Media:
DO NOT use water. Use special dry chemical mixtures or smother with dry sand, clay, or ground limestone.

Special Firefighting Procedures:
Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

Unusual Fire and Explosion Hazards:
Dust explosion hazard. Dangerous fire hazard in the presence of moisture. Dust explosion hazard. Dust is easily ignited with greater flammability as fineness of powder increases.

Health Hazard Information

Effects of Overexposure
Skin Contact: 
CALCIUM, Turnings

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MSDS Number: C043
Revision Date: 16-Apr-08
Revision No.: 002

Health Hazard Information

Effects of Overexposure

Skin Contact:
May cause burns in contact with wet skin due to formation of caustic calcium hydroxide from reaction with body moisture.

Eye Contact:
Contact may cause severe irritation or burns.

Ingestion:
Harmful if swallowed. Ingestion may cause nausea, vomiting and gastrointestinal irritation and burns to the mouth and throat.

Inhalation:
May be harmful if inhaled. Dusts may cause burns to the mucous membranes and respiratory system.

Chronic Effects of Overexposure:
None Identified

Exposure Limits:

<table>
<thead>
<tr>
<th>Component</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
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</table>

ACGIH TLV

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<tr>
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<th>STEL</th>
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<tr>
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<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

Toxicity Data:
Calcium
No information available.

Medical Conditions Generally Aggravated by Exposure:
None Identified

Target Organs:
None Identified

Reproductive Effects:
None Identified

Carcinogenicity:
None Identified

<table>
<thead>
<tr>
<th>Component</th>
<th>NTP Listing</th>
<th>IARC Listing</th>
<th>OSHA Regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>No listing</td>
<td>No listing</td>
<td></td>
</tr>
</tbody>
</table>

Emergency First Aid Procedures

Skin Contact:
Immediately remove contaminated clothing. Flush skin with water for at least 15 minutes. Seek immediate medical attention. Brush away all visible solid material prior to rinsing with cold water.

Eye Contact:
Flush with water for at least 15 minutes. Seek immediate medical attention. Carefully remove all solid material prior to rinsing with cold water.

Inhalation:
Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.
Emergency First Aid Procedures

Ingestion:
Do not induce vomiting. Rinse out mouth with water and seek medical attention. Never give anything by mouth to an unconscious person.

Additional First aid and Treatment Notes:
No information available

Reactivity Data

Stability: Stable
Hazardous Polymerization: Will Not Occur

Incompatibles:
Incompatible with strong acids and strong oxidizers. Water, air, alcohols, carbonates, chlorine, chlorine trifluoride, dinitrogen tetraoxide, fluorine, halogens, halogen compounds, sulfur, silicon.

Decomposition Products:
Liberates hydrogen in contact with acids or moisture.

Conditions to Avoid:
Reacts vigorously with oxidizers and water.

Spill and Disposal Procedures

Spill and Leak Procedures:
Remove all ignition sources. Sweep or scoop into disposal container in a manner that minimizes dust dispersion. Eliminate and avoid all sources of moisture.

Disposal Procedures:
Dispose in accordance with all Local, State and Federal regulations.

Protective Equipment

Ventilation:
Use adequate general or local exhaust ventilation to keep fume and/or dust levels as low as possible.

Respiratory Protection:
None needed unless use generates annoying or irritating dusts, mists or vapors. Use a dust/mist respirator mask if necessary.

Skin and Eye Protective Equipment:
Safety goggles, protective clothing and gloves. Maintain an eyewash station and safety shower nearby.

Storage and Handling Precautions

Storage Area: FLAMMABLE SOLID/WATER REACTIVE
Store in a cool, dry, well-ventilated flammable solids storage area or cabinet. Isolate from incompatible materials. Minimize exposure to air and light sources. Protect containers from physical damage. Protect from moisture. Handle and store under an inert gas, such as argon.

Transportation Information

- Regulated Material domestic ground transportation
  (reference: CFR Title 49, Transportation)
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Transportation Information

Proper Shipping Name:Calcium
UN or NA Identification number: UN1401
Packing Group: II
Hazard Class and Label: 4.3
Subsidiary Risk and Label:

☑ Regulated Material via Air Transportation

Passenger Aircraft:
Packing Instruction Max net qty per package
415/Y415 15kg/5kg
Cargo Aircraft:
417 50kg

Regulatory Information

Component TSCA CERCLA SARA EHS SARA 313 Toxic Release
Calcium Inventory lbs lbs lbs lbs
RQ NE NE NE

SARA Hazard Categories: Acute Chronic Flammability Pressure Reactivity
Calcium NE NE ✔ ✔ ✔

Clean Air Act Categories: SOCMI HAP Volatile HAP Organic HAP Ozone Depleting
Calcium NE NE NE NE NE

MSDS Revision History:
002 - Updated Header Information

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***** END OF MSDS *****