

United Nuclear

Scientific Equipment & Supplies

SAFETY DATA SHEET

Preparation Date: 02/26/2019

Revision date 02/26/2019

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product Name: CALCIUM METAL, PIECES, PURIFIED

Other means of identification

Synonyms: No information available
CAS #: 7440-70-2
RTECS # EV8040000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: United Nuclear Scientific
125 N. 8th Street
Klamath Falls, OR 97601
(541) 205-6855

Order Online At: www.unitednuclear.com
Emergency telephone number VelocityEHS (USA) 800-255-3924

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Substances or mixtures which, in contact with water, emit flammable gases	Category 2

Label elements

Danger

Hazard statements

Causes severe skin burns and eye damage
In contact with water releases flammable gases



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Handle under inert gas. Protect from moisture
Keep away from any possible contact with water, because of violent reaction and possible flash fire

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
In case of fire: Use CO₂, dry chemical, or foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage

Store locked up
Store in a dry place. Store in a closed container

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Calcium	7440-70-2	100

4. FIRST AID MEASURES

First aid measures

General Advice:

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact:

Wash off immediately with soap and plenty of water. Remove all contaminated clothes and shoes. Continue flushing with plenty of water for at least 15 minutes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Eye Contact: Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

Most important symptoms and effects, both acute and delayed

Symptoms Causes severe skin burns and eye damage
 May cause digestive (gastrointestinal) tract irritation
 May cause irritation of respiratory tract
 May cause coughing and shortness of breath
 Headache
 Nausea

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Soda Ash. Limestone powder. Dry powder.

Unsuitable Extinguishing Media: Water.

Specific hazards arising from the chemical

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). Metallic oxides.

Specific hazards Produces flammable gases on contact with water.

Special Protective Actions for Firefighters

Specific Methods: Do not use water on material itself

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Moisture sensitive. Protect from moisture. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Moisture
Acids
Strong oxidizing agents
Alcohols
Ammonia
Halogens

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Calcium	7440-70-2	None	None	None	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
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Calcium	7440-70-2	None	None	None	None
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Australia and Mexico

Component	CAS No	Australia	Mexico
Calcium	7440-70-2	None	None

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles
- Skin and body protection:** Long sleeved clothing
Chemical resistant apron
Gloves
- Respiratory protection:** Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: Metal.	Color: No information available.
Odor: No information available.	Taste No information available.	Formula Ca
Molecular/Formula weight (g/mole): 40.08	Flammability (solid, gas) no data available	Flashpoint (°C/°F): No information available
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 839-850°C/ 1542.2-1562°F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 1484°C/ 2703.2°F	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: 1.54	pH No information available	Vapor pressure @ 20°C (kPa): No information available

Evaporation rate:
No information available

Vapor density:
No information available

VOC content (g/L):
No information available

Odor threshold (ppm):
No information available

**Partition coefficient
(n-octanol/water):**
No information available

Viscosity:
No information available

Miscibility:
No information available

Solubility:
Reacts with water
Insoluble in Benzene

10. STABILITY AND REACTIVITY

Reactivity

Reacts with water
Produces flammable gases on contact with water

Chemical stability

Stability: Moisture Sensitive. Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Exposure to moisture. Exposure to moist air. Incompatible materials.

Incompatible Materials: Moisture
Acids
Strong oxidizing agents
Alcohols
Ammonia
Halogens

Hazardous decomposition products: Calcium oxides.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Eyes. Inhalation. Ingestion.

Acute Toxicity

Component Information

Calcium	
CAS No	7440-70-2

LD50/oral/rat = No information available
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available

Product name: CALCIUM METAL,
PIECES, PURIFIED

LD50/dermal/rat = No information available
 LC50/inhalation/rat = No information available
 LC50/inhalation/mouse = No information available
 Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
 Value - Acute Tox = No information available

LD50/oral/mouse =
 Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
 Value - Acute Tox = No information available

LD50/dermal/rat
 VALUE - Acute Tox Dermal = No information available

LC50/inhalation/rat
 VALUE-Vapor = No information available
 VALUE-Gas = No information available
 VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
 VALUE-Vapor = No information available
 VALUE - Gas = No information available
 VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes severe irritation and burns.
Eye Contact: Causes severe irritation and burns.
Inhalation May cause irritation of respiratory tract.
Ingestion May be harmful if swallowed. May cause digestive (gastrointestinal) tract irritation.
Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Calcium	7440-70-2	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available
Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Calcium	7440-70-2	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN1401
Proper Shipping Name: Calcium
Hazard Class 4.3
Subsidiary Class No information available
Packing group: II

Emergency Response Guide 138**Number****Marine Pollutant****DOT RQ (lbs):****Special Provisions****Symbol(s):****Description:**

Severe Marine Pollutant

No information available

IB7, IP2, IP21, T3, TP33, W31, W40

No information available

UN1401, Calcium, 4.3, II

TDG (Canada)**UN-No:****Proper Shipping Name:****Hazard Class****Subsidiary Risk:****Packing Group:****Marine Pollutant****Description:**

UN1401

Calcium

4.3

No information available

II

No Information available

UN1401, Calcium, 4.3, II

ADR**UN Number****Proper Shipping Name:****Transport hazard class(es)****Packing group****Subsidiary Risk:****Description:**

UN1401

Calcium

4.3

II

No information available

UN1401, Calcium, 4.3, II

IMDG**UN-No:****Proper Shipping Name:****Hazard Class:****Subsidiary Risk:****Packing Group:****Marine Pollutant****EMS:****Description**

UN1401

Calcium

4.3

No information available

II

No information available

F-G

UN1401, Calcium, 4.3, II

RID**UN Number****Proper Shipping Name:****Transport hazard class(es)****Subsidiary Risk:****Packing group****Description:**

UN1401

Calcium

4.3

No information available

II

UN1401, Calcium, 4.3, II

ICAO (air)**UN-No:****Proper Shipping Name:****Hazard Class****Subsidiary Risk:****Packing Group:****Description:**

UN1401

Calcium

4.3

No information available

II

UN1401, Calcium, 4.3, II

IATA**UN Number****Proper Shipping Name:****Transport hazard class(es)****Subsidiary Risk:****Packing group****Precautionary Statements -**

UN1401

Calcium

4.3

No information available

II

4W

Response
Special Provisions No information available
Description: UN1401, Calcium, 4.3, II

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia AICS	EINECS-No.
Calcium	7440-70-2	PresentACTIVE	Present KE-04462	Present	Not present	Present	Present	Present 231-179-5

U.S. Regulations

Calcium

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0309
Pennsylvania RTK: Present
California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Calcium	7440-70-2	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Calcium	7440-70-2	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Calcium	7440-70-2	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
 Calcium
 7440-70-2 (100)

WHMIS 2015 Hazard Classification
 Substances and mixtures which in contact with water emit flammable gases - Category 2: H261 In contact with water releases flammable gases.; Combustible Dust - Category 1: May

form combustible dust concentrations in air (factors such as combustibility and explosiveness of dusts including composition and shape and size of particles could cause substance to belong to 'Combustible dust' hazard class)

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Calcium	7440-70-2	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Calcium	7440-70-2	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Calcium	7440-70-2	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Calcium	7440-70-2	Substances and mixtures which in contact with water emit flammable gases - Water-react. 2: H261 In contact with water releases flammable gases.020-001-00-X

EU - CLP (1272/2008)

R-phrase(s)

R15 - Contact with water liberates extremely flammable gases
R34 - Causes burns

S -phrase(s)

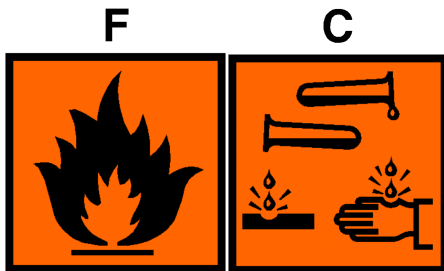
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S43 - In case of fire, use dry chemical. Never use water
S36 - Wear suitable protective clothing

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Calcium	7440-70-2	F; R15	No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

F - Highly flammable
C - Corrosive



16. OTHER INFORMATION

Preparation Date: 02/26/2019
Revision date 02/26/2019
Prepared by: United Nuclear Scientific

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. United Nuclear Scientific assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, United Nuclear Scientific assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet