

Calcium Balls	Pricing >
Calcium Band	Pricing >
Calcium Bars	Pricing >
Calcium Chunk	Pricing >
Calcium Coil	Pricing >
Calcium Concentrate	Pricing >
Calcium Cube	Pricing >
Calcium Cylinder	Pricing >
Calcium Dendritic Pieces	Pricing >
Calcium Disc	Pricing >
Calcium Flake	Pricing >
Calcium Flange	Pricing >
Calcium Foil	Pricing >
Calcium Granules	Pricing >
Calcium Ingot	Pricing >
Calcium Lump	Pricing >
Calcium Mesh	Pricing >
Calcium Metal	Pricing >
Calcium Microfoil	Pricing >
Calcium Microleaf	Pricing >
Calcium Nanoprisms	Pricing >
Calcium Particles	Pricing >
Calcium Parts	Pricing >
Calcium Pellets	Pricing >
Calcium Pieces	Pricing >
Calcium Plate	Pricing >
Calcium Powder	Pricing >
Calcium Puck	Pricing >
Calcium Ribbon	Pricing >
Calcium Ring	Pricing >

Calcium Rod	Pricing >
Calcium Rotatable Sputtering Target	Pricing >
Calcium Samples	Pricing >
Calcium Shavings	Pricing >
Calcium Sheet	Pricing >
Calcium Shot	Pricing >
Calcium Single Crystal	Pricing >
Calcium Sleeve	Pricing >
Calcium Slugs	Pricing >
Calcium Specimen	Pricing >
Calcium Spheres	Pricing >
Calcium Spring	Pricing >
Calcium Sputtering Target	Pricing >
Calcium Strip	Pricing >
Calcium Tape	Pricing >
Calcium Tube	Pricing >
Calcium Turnings	Pricing >
Calcium Wafer	Pricing >
Calcium Wire	Pricing >
Ultra Thin Calcium Nanofoil	Pricing >

Linear Formula	Ca
Pubchem CID	5460341
MDL Number	MFCD00085314
EC No.	231-179-5
Beilstein/Reaxys No.	4241647
SMILES	[Ca]
Inchl Identifier	InChI=1S/Ca
Inchl Key	OYPRJOBELJOOCE-UHFFFAOYSA-N
Signal Word	Danger
Hazard Statements	N/A
Hazard Codes	H261
Precautionary Statements	P231+P232-P280-P233-P370+P378c-P335+P334-P402+P404-P501a
Flash Point	Not applicable
Risk Codes	N/A
Safety Statements	N/A
RTECS Number	N/A

Transport Information	UN 1401 4.3 / PGII
WGK Germany	3

[Create Printable PDF](#)

SAFETY DATA SHEET

Date Accessed: 01/18/2022

Date Revised: 05/15/2015

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #7440-70-2

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
GHS02 Flame
Water-react. 2 H261 In contact with water releases flammable gas.
Classification according to Directive 67/548/EEC or Directive 1999/45/EC
F; Highly flammable
R15: Contact with water liberates extremely flammable gases.
Information concerning particular hazards for human and environment:
N/A
Hazards not otherwise classified
No data available
Label elements
Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labeled according to the CLP regulation.
Hazard pictograms



GHS02

Signal word

Danger

Hazard statements

H261 In contact with water releases flammable gas.

Precautionary statements

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

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

P233 Keep container tightly closed.

P370+P378 In case of fire: Use for extinction: CO₂, sand, extinguishing powder.

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

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

B6 - Reactive flammable material

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH

FIRE

REACTIVITY

1

3

2

Health (acute effects) = 1

Flammability = 3

Physical Hazard = 2

Other hazards

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

CAS No. / Substance Name:

7440-70-2 Calcium

Identification number(s):

EC number: 231-179-5

Index number: 020-001-00-X

SECTION 4. FIRST AID MEASURES

Description of first aid measures

If inhaled:

Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

In case of skin contact:

Immediately wash with soap and water; rinse thoroughly.

Seek immediate medical advice.

In case of eye contact:

Rinse opened eye for several minutes under running water. Consult a physician.

If swallowed:

Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed

No data available

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents

Special powder for metal fires. Do not use water.

For safety reasons unsuitable extinguishing agents

Water

Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:

Calcium oxide

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

Environmental precautions:

Do not allow material to be released to the environment without official permits.

Do not allow product to enter drains, sewage systems, or other water courses.
Do not allow material to penetrate the ground or soil.
Methods and materials for containment and cleanup:
Keep away from ignition sources.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Prevention of secondary hazards:
Keep away from ignition sources.
Reference to other sections
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

Handling

Precautions for safe handling

Handle under dry protective gas.

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Reacts violently with water

Information about protection against explosions and fires:

Protect from humidity and water.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Store away from air.

Store away from water/moisture.

Further information about storage conditions:

Store under dry inert gas.

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Protect from humidity and water.

Specific end use(s)

No data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and

having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that should be monitored at the workplace.

Additional information: No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Recommended filter device for short term use:

Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protection of hands: Impervious gloves

Inspect gloves prior to use.

Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.

Material of gloves

Nitrile rubber, NBR

Penetration time of glove material (in minutes)

480

Glove thickness

0.11 mm

Eye protection: Safety glasses

Full face protection

Body protection: Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Solid in various forms

Color: Silvery-white

Odor: Odorless

Odor threshold: No data available.

pH: N/A
Melting point/Melting range: 842 °C (1548 °F)
Boiling point/Boiling range: 1440 °C (2624 °F)
Sublimation temperature / start: No data available
Flammability (solid, gas): Contact with water liberates extremely flammable gases.
Ignition temperature: No data available
Decomposition temperature: No data available
Autoignition: No data available.
Danger of explosion: No data available.
Explosion limits:
Lower: No data available
Upper: No data available
Vapor pressure at 20 °C (68 °F): 0 hPa
Density at 20 °C (68 °F): 1.54 g/cm³ (12.851 lbs/gal)
Bulk density at 20 °C (68 °F): 700 kg/m³
Relative density: No data available.
Vapor density: N/A
Evaporation rate: N/A
Solubility in Water (H₂O): Contact with water releases flammable gases
Partition coefficient (n-octanol/water): No data available.
Viscosity:
Dynamic: N/A
Kinematic: N/A
Other information
No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

In contact with water releases flammable gases which may ignite spontaneously.

Chemical stability

Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions

Contact with water releases flammable gases

Conditions to avoid

No data available

Incompatible materials:

Air

Water/moisture

Hazardous decomposition products:

Calcium oxide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: No effects known.

LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: May cause irritation

Eye irritation or corrosion: May cause irritation

Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.

Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity: No effects known.

Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: No effects known.

Aspiration hazard: No effects known.

Subacute to chronic toxicity: No effects known.

Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Carcinogenic categories

OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Additional ecological information:

Do not allow material to be released to the environment without official permits.

Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT: N/A

vPvB: N/A

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Consult official regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations

SECTION 14. TRANSPORT INFORMATION

UN-Number

DOT, IMDG, IATA

UN1401

UN proper shipping name

DOT

Calcium

IMDG, IATA

CALCIUM

Transport hazard class(es)

DOT

Class

4.2 Substances liable to spontaneous combustion.

Label

4.3

Class

4.3 (W2) Substances which, in contact with water, emit flammable gases

Label

4.3

IMDG

Class

4.2 Substances liable to spontaneous combustion.

Label

4.3

IATA

Class

4.3 Substances which, in contact with water, emit flammable gases.

Label

4.3

Packing group

DOT, IMDG, IATA

II

Environmental hazards: N/A

Special precautions for user

Warning: Substances which, in contact with water, emit flammable gases

EMS Number:

F-G,S-O

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code
N/A
Transport/Additional information:
DOT
Marine Pollutant (DOT):
No
UN "Model Regulation":
UN1401, Calcium, 4.3, II

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings) Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer Substance is not listed.

Prop 65 - Developmental toxicity Substance is not listed.

Prop 65 - Developmental toxicity, female Substance is not listed.

Prop 65 - Developmental toxicity, male Substance is not listed.

Information about limitation of use:
For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed. Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed.

REACH - Pre-registered substances Substance is listed.

Chemical safety assessment:
A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2016 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
