

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name Calcium metal, granular
CAS number 7440-70-2
Synonyms No information available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses Manufacturing, processing, laboratory, or repacking use only.

1.3 Details of the supplier of the safety data sheet

Company Lab Alley, LLC
 12501 Pauls Valley Road
 Austin, Texas 78737
 U.S.A.

Telephone 512-668-9918
Fax 512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Water-react: Category 2

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

In contact with water releases flammable gases.

Precautionary
Statements:

Do not allow contact with water. Handle under inert gas. Protect from moisture. Wear protective gloves/protective clothing/eye protection/face protection. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages. In case of fire: Use appropriate elements to extinction. Store in a dry place. Store in a closed container. Dispose of contents / container according the regulation.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Calcium metal	-	7440-70-2	100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

General advice

If inhaled

Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear.

In case of skin contact

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

In case of eye contact

If wearing contact lenses, remove them. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

If swallowed If accidentally ingest, seek immediate medical attention. Keep calm. NEVER induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Corrosive product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage, if this occurs immediate medical assistance is required.

4.3 Indication of any immediate medical attention and special treatment needed

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media Do not use a direct stream of water to extinguish.

5.2 Specific hazards arising from the substance or mixture

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Special protective equipment and precautions for firefighters

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways. According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available.

Lower No data available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA No information available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate possible ignition points and ventilate the area. Avoid breathing fumes. For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions

Prevent the contamination of drains, surface, or subterranean water, and the ground.

6.3 Methods and materials for containment and cleaning up

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements. For exposure control and individual protection measures, see section 8. For later elimination of waste, follow the recommendations under section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers. In the application area, smoking, eating, and drinking must be prohibited. Follow legislation on occupational health and safety. Keep the product in containers made of a material identical to the original.

Hygiene measures

No information available.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store according to local legislation. Observe indications on the label. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

Incompatibilities

Oxidising agents, highly acidic materials, alkaline materials.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

No information available.

US. ACGIH Threshold Limit Values

No information available.

US. NIOSH: Pocket Guide to Chemical Hazards

No information available.

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Personal protective equipment**Eye/face protection**

Face shield. Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions. Make sure that mobile parts move smoothly. Face shields should offer a field of vision with a dimension in the central line of, at least, 150 mm vertically once attached to the frame.

Skin protection

Anti-static protective clothing. In order to guarantee uniform protection, follow the washing and the maintenance instructions provided by the manufacturer. The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and expected time of use. Anti-static safety footwear. The footwear should be checked regularly. The level of comfort during use and acceptability are factors that are assessed very differently depending on the used. Therefore, it is advisable to try on different footwear models and, if possible, different widths.

Body Protection

Protective gloves. Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.

Respiratory protection

Filter mask for protection against gases and particles. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight. Should not be stored in places exposed to high temperatures and damp environments before use. Special attention should be paid to that state of the inhalation and exhalation valves in the face adaptor. Carefully read the manufacturer's instructions regarding the equipment's use and maintenance. Attach the necessary filters to the equipment according to the specific nature of the risk.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Not applicable.
Odor	Not applicable.
Odor Threshold	Not applicable.
pH	14 (0.4%, 20 °C)
Melting Point/Range	850 °C
Boiling Point/Range	1175 °C
Evaporation Rate	Not applicable.
Flammability (solid)	Not applicable.
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	Not applicable.
Vapor Density	Not applicable.
Density	Not applicable.
Solubility	4 g/l (20 °C)
Partition coefficient; n-octanol/water	Not applicable.
Autoignition Temp	Not applicable.
Decomposition Temp	Not applicable.
Viscosity	Not applicable.
Molecular Formula	Ca
Molecular Weight	40.08
VOC Content(%)	Not applicable.
Oxidizing properties	Not applicable.

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

In contact with water releases flammable gases.

10.2 Chemical stability

Unstable in contact with acids and water.

10.3 Possibility of hazardous reactions

It can cause excessive heat. Neutralization can occur on contact with acids.

10.4 Conditions to avoid

Humidity, contact with incompatible materials, contact with water, avoid contact with acids.

10.5 Incompatible materials

Acids, bases, water, flammable materials, explosives materials

10.6 Hazardous decomposition products

CO_x (carbon oxides), NO_x (nitrogen oxides), Oxygen, Corrosive vapors or gases

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Not conclusive data for classification.

Skin corrosion/irritation

Not conclusive data for classification.

Serious eye damage/eye irritation

Not conclusive data for classification.

Respiratory or skin sensitization

Not conclusive data for classification.

Germ cell mutagenicity

Not conclusive for classification

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Calcium metal	7440-70-2	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

Not conclusive data for classification

Specific target organ toxicity - repeated exposure

Not conclusive data for classification

Reproductive toxicity

Not conclusive data for classification.

Chronic effects

Not conclusive data for classification.

11.2 Additional Information

No additional information available.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Calcium metal	EC50	Daphnia magna (Aquatic invertebrates)	330 mg/l (48 h)

12.2 Persistence and degradability

No information is available.

12.3 Bio accumulative potential

No information is available.

12.4 Mobility in soil

The product must not be allowed to go into sewers or waterways. Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment

No information is available.

12.6 Endocrine disrupting properties

No information is available.

12.7 Other adverse effects

No information is available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Do not dump into sewers or waterways. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN No.

UN1401

Proper Shipping Name	CALCIUM
Hazard Class	4.3
Packing Group	II

IMDG

UN No.	UN1401
Proper Shipping Name	CALCIUM
Hazard Class	4.3
Packing Group	II

IATA

UN No.	UN1401
Proper Shipping Name	CALCIUM
Hazard Class	4.3
Packing Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

CERCLA Hazardous Substance List (40 CFR 302.4)

Not regulated

SARA 304 Emergency release notification

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Not regulated.

SARA 313 (TRI reporting)

Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not listed

**FEMA Priority Substances Respiratory Health and Safety in the Flavor
Manufacturing Workplace**

Not listed

US state regulations

US. Massachusetts RTK - Substance List

Not listed

US. New Jersey Worker and Community Right-to-Know Act

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed

California Proposition 65

Not listed

SECTION 16: Other information

Issue date: 15/04/2016

Revision 1: 07/16/2024

Revision 2: 07/03/2025

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.