



CALCIUM NITRATE (15N2, 98%+)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 3.1

NLM-499

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

1.1. Product identifier

Product form : Substance
Substance name : CALCIUM NITRATE (15N2, 98%+)
EC-No. : 233-332-1 (Unlabeled)
CAS-No. : 31432-44-7
Product code : NLM-499
Formula : Ca(*NO3)2

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000
cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)
International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302
Eye Dam. 1 H318

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xn; R22
Xi; R41

Full text of R-phrases: see section 16

GHS-US classification

Acute Tox. 4 (Oral) H302
Eye Dam. 1 H318

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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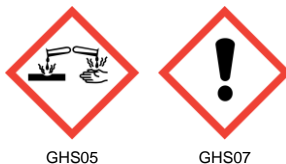
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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazard statements (CLP) :

H302 - Harmful if swallowed
H318 - Causes serious eye damage

Precautionary statements (CLP) :

P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective clothing, protective gloves.
P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a doctor, a POISON CENTER.
P330 - Rinse mouth.
P501 - Dispose of contents/container to Comply with applicable regulations

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H302 - Harmful if swallowed
H318 - Causes serious eye damage

Precautionary statements (GHS-US) :

P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective clothing, protective gloves.
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a poison center or doctor
P330 - Rinse mouth.
P501 - Dispose of contents/container to Comply with applicable regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Directive 67/548/EEC
CALCIUM NITRATE (15N2, 98%+)	(CAS-No.) 31432-44-7 (EC-No.) 233-332-1 (Unlabeled) (EC Index-No.)	100	Xn; R22 Xi; R41
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
CALCIUM NITRATE (15N2, 98%+)	(CAS-No.) 31432-44-7 (EC-No.) 233-332-1 (Unlabeled) (EC Index-No.)	100	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Full text of R- and H- phrases: see section 16

Name	Product identifier	%	GHS-US classification
CALCIUM NITRATE (15N2, 98%+) (Main constituent)	(CAS-No.) 31432-44-7	100	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Full text of H-phrases: see section 16

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3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- First-aid measures after inhalation : If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
- First-aid measures after skin contact : Wash with soap and plenty of water. Consult a physician.
- First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : May be harmful if inhaled. May cause respiratory tract irritation.
- Symptoms/effects after skin contact : May be harmful if absorbed through skin. May cause skin irritation.
- Symptoms/effects after eye contact : Causes serious eye damage.
- Symptoms/effects after ingestion : Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid dust formation.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal.
- Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Keep container tightly closed in a dry and well-ventilated place.
- Storage conditions : Store at room temperature away from light and moisture.

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



Materials for protective clothing : Wear suitable protective clothing and gloves.

Hand protection : Wear suitable protective clothing and gloves.

Eye protection : Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : When appropriate, use NIOSH/CEN approved respirator.

Environmental exposure controls : Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline powder.
Molecular mass	: 166.08 g/mol (Labeled)
Color	: Colourless.
Odor	: No data available
Odor threshold	: No data available
pH	: 5.5 - 7
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 44 °C (111 °F) - dec.
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1.82 g/cm ³ at 20 °C (68 °F)
Solubility	: Water: 1293 g/l at 20 °C (68 °F)
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

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10.2. Chemical stability

Stable if stored under recommended conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Avoid contact with combustible material (paper, wool, oil).

10.5. Incompatible materials

Strong oxidizing agent.

10.6. Hazardous decomposition products

Nitrogen oxides. Calcium oxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

CALCIUM NITRATE (15N2, 98%+) (31432-44-7)	
LD50 oral rat	300 - 2000 mg/kg (OECD Test Guideline 423)
ATE CLP (oral)	500.000 mg/kg body weight

Skin corrosion/irritation : Skin - Rabbit Result: No skin irritation. (OECD Test Guideline 404)
pH: 5.5 - 7

Serious eye damage/irritation : Eyes - Rabbit Result: Risk of serious damage to eyes. (OECD Test Guideline 405)
pH: 5.5 - 7

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Symptoms/effects after inhalation : May be harmful if inhaled. May cause respiratory tract irritation.

Symptoms/effects after skin contact : May be harmful if absorbed through skin. May cause skin irritation.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

CALCIUM NITRATE (15N2, 98%+) (31432-44-7)	
LC50 fish 1	> 98.9 mg/l <i>Oncorhynchus mykiss</i> (rainbow trout) - 96 h

12.2. Persistence and degradability

CALCIUM NITRATE (15N2, 98%+) (31432-44-7)	
Persistence and degradability	The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

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12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.
- Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
- Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

- Other information : No supplementary information available.
- Special transport precautions : Not dangerous goods.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

14.4. Environmental hazards

- Other information : No supplementary information available.

14.5. Special precautions for user

- Special transport precautions : Not dangerous goods.

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

CALCIUM NITRATE (15N2, 98%+) (31432-44-7)	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

15.2. International regulations

CANADA

CALCIUM NITRATE (15N2, 98%+) (31432-44-7)	
Listed on the Canadian DSL (Domestic Substances List)	

15.2.1. National regulations

No additional information available

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15.3. US State regulations

CALCIUM NITRATE (15N2, 98%+)(31432-44-7)	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	RTK - U.S. - Pennsylvania - RTK (Right to Know) List RTK - U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases:

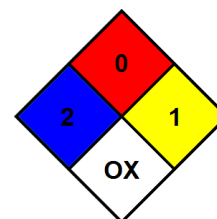
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
H302	Harmful if swallowed
H318	Causes serious eye damage
R22	Harmful if swallowed
R41	Risk of serious damage to eyes
Xi	Irritant
Xn	Harmful

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.

NFPA specific hazard : OX - Materials that possess oxidizing properties.



Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 0 Minimal Hazard

Physical : 1 Slight Hazard

CIL Substance SDS

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