

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/03/2024

Reviewed on 07/02/2024

## 1 Identification

- **Product identifier**
- **Trade name:** Calcium Nitrate, Laboratory Grade Granular
- **Article number:** C0878
- **CAS Number:**  
13477-34-4
- **EC number:**  
233-332-1
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
techservices@ofite.com  
Technical Coordinator  
Sherman Nelson shermann@aquasolutions.org
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS03 Flame over circle

Oxidizing Solids 2 H272 May intensify fire; oxidizer.

- **Label elements**

- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS03

- **Signal word** Danger

- **Hazard statements**

May intensify fire; oxidizer.

- **Precautionary statements**

Keep away from heat.

Keep/Store away from clothing/combustible materials.

Take any precaution to avoid mixing with combustibles.

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

In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.

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

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/03/2024

Reviewed on 07/02/2024

**Trade name: Calcium Nitrate, Laboratory Grade Granular**

(Contd. of page 1)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 3  
Reactivity = 0

The substance possesses oxidizing properties.

- **HMIS-ratings (scale 0 - 4)**



Health = 2  
Fire = 0  
Reactivity = 3

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### \* 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
CAS: 13477-34-4 Calcium Nitrate Tetrahydrate
- **Identification number(s)**
- **EC number:** 233-332-1

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.

(Contd. on page 3)

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 07/03/2024

Reviewed on 07/02/2024

**Trade name: Calcium Nitrate, Laboratory Grade Granular**

(Contd. of page 2)

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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.
- **Protective Action Criteria for Chemicals**
- **PAC-1:** 12 mg/m<sup>3</sup>
- **PAC-2:** 130 mg/m<sup>3</sup>
- **PAC-3:** 770 mg/m<sup>3</sup>

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:** Protective work clothing

US

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/03/2024

Reviewed on 07/02/2024

Trade name: Calcium Nitrate, Laboratory Grade Granular

(Contd. of page 3)

## 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Crystalline
· <b>Color:</b>	white to yellow
· <b>Odor:</b>	Odorless
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value:</b>	Not applicable.
· <b>Change in condition</b>	
· <b>Melting point/Melting range:</b>	44 °C (111.2 °F)
· <b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Product is not flammable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Ignition temperature:</b>	Not determined.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20 °C (68 °F):</b>	1.86 g/cm <sup>3</sup> (15.5217 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with</b>	
· <b>Water at 20 °C (68 °F):</b>	1293 g/l
· <b>Partition coefficient (n-octanol/water):</b> Not determined.	
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not applicable.
· <b>Kinematic:</b>	Not applicable.
· <b>Other information</b> No further relevant information available.	

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/03/2024

Reviewed on 07/02/2024

Trade name: Calcium Nitrate, Laboratory Grade Granular

(Contd. of page 4)

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- **Water hazard class 1 (Self-assessment):** slightly hazardous for water
- **Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
- **Must not be disposed of together with household garbage. Do not allow product to reach sewage system.**
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |                                  |                 |
|----------------------------------|-----------------|
| · <b>UN-Number</b>               |                 |
| · <b>DOT, IMDG, IATA</b>         | UN1454          |
| · <b>UN proper shipping name</b> |                 |
| · <b>DOT</b>                     | Calcium nitrate |
| · <b>IMDG, IATA</b>              | CALCIUM NITRATE |

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/03/2024

Reviewed on 07/02/2024

Trade name: Calcium Nitrate, Laboratory Grade Granular

(Contd. of page 5)

· Transport hazard class(es)

· DOT



· Class

5.1 Oxidizing substances

· Label

5.1

· IMDG, IATA



· Class

5.1 Oxidizing substances

· Label

5.1

· Packing group

· DOT, IMDG, IATA

III

· Environmental hazards:

· Marine pollutant:

No

· Special precautions for user

Warning: Oxidizing substances

· Hazard identification number (Kemler code): 50

· EMS Number:

F-A,S-Q

· Stowage Category

A

· Stowage Code

SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:

· DOT

· Quantity limitations

On passenger aircraft/rail: 25 kg

On cargo aircraft only: 100 kg

· IMDG

· Limited quantities (LQ)

5 kg

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· UN "Model Regulation":

UN 1454 CALCIUM NITRATE, 5.1, III

## 15 Regulatory information

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

No further relevant information available.

· Sara

· Section 355 (extremely hazardous substances): Substance is not listed.

· Section 313 (Specific toxic chemical listings): Substance is listed.

(Contd. on page 7)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/03/2024

Reviewed on 07/02/2024

**Trade name: Calcium Nitrate, Laboratory Grade Granular**

(Contd. of page 6)

- **TSCA (Toxic Substances Control Act):**
- **Hazardous Air Pollutants Substance** is not listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS03

- **Signal word** *Danger*
- **Hazard statements**  
*May intensify fire; oxidizer.*
- **Precautionary statements**  
*Keep away from heat.*  
*Keep/Store away from clothing/combustible materials.*  
*Take any precaution to avoid mixing with combustibles.*  
*Wear protective gloves/protective clothing/eye protection/face protection.*  
*In case of fire: Use CO2, powder or water spray to extinguish.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** Environment protection department.
- **Contact:**  
*Date of Preparation / Last Revision:*
- **Date of preparation / last revision**  
*Revision 1.2 07/03/2024: Reviewed SDS for accuracy. MH/STN*  
*Revision 0.0, 05-29-2024: Creation date for SDS. STN*  
*07/03/2024 / -*
- **Abbreviations and acronyms:**  
*IMDG: International Maritime Code for Dangerous Goods*  
*DOT: US Department of Transportation*  
*IATA: International Air Transport Association*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*NIOSH: National Institute for Occupational Safety*  
*OSHA: Occupational Safety & Health*  
*TLV: Threshold Limit Value*

(Contd. on page 8)

US

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 07/03/2024

Reviewed on 07/02/2024

**Trade name: Calcium Nitrate, Laboratory Grade Granular**

(Contd. of page 7)

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*Oxidizing Solids 2: Oxidizing solids – Category 2*

**. \* Data compared to the previous version altered.**

US