

Date of issue/ Date of revision : 08/16/2019  
Date of previous issue : 00/00/0000  
Version : 1.0

# SAFETY DATA SHEET

Calcinit Greenhouse/Solution Grade

## Section 1. Identification

**GHS product identifier** : Calcinit (Nitric acid, ammonium calcium salt)

**Product type** : solid (prills)

### Uses

**Area of application** : Not Applicable

### Supplier

**Supplier's details** : Greenway Biotech, Inc.

### Address

**Street** : 10632 Painter Ave

**Postal code** : 90670

**City** : Santa Fe Springs

**Country** : United States

**Telephone number** : +1 562-351-5168

**e-mail address of person responsible for this SDS** : sales@greenwaybiotech.com

**Emergency telephone number (with hours of operation)** : US: Chemtrec 24-hours Emergency Response: 1-800-424-9300  
Canada: 24 Hour Emergency Service, (Canutec 613-996-6666)

### National advisory body/Poison Center

**Name** : The National Poisons Emergency number

**Telephone number** : 1 800 222 1222

## Section 2. Hazards identification

**OSHA/HCS status:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification and labelling have been performed following the guidelines and recommendation of GHS and the intended use.**

**Classification of the substance or mixture:** ACUTE TOXICITY (oral) – Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION – Category 1

## GHS label elements



**Hazard Pictograms:**

**Signal words:** Danger

**Hazard Statements:** Harmful if swallowed. Causes serious eye damage.

### Precautionary statements

**Prevention:** Wear protective gloves and eye protection. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

**Response:** 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 SWALLOWED: Call a poison center or doctor/physician if you feel unwell. Rinse mouth.

**Hazards not otherwise classified:** Product forms slippery surface when combined with water.

## **Section 3. Composition/information on ingredients**

**Substance/mixture:** Substance

**Other means of identification:** Nitric acid, ammonium calcium salt

**CAS number:** 15245-12-2

Product/Ingredient Name	CAS Number	%
Nitric acid, ammonium calcium salt	CAS: 15245-12-2	100

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in section 8.

## **Section 4. First aid measures**

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, keeping eyelids open. Check for and remove any contact lenses. Get medical attention immediately.

**Inhalation:** If inhaled, remove to fresh air. Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.

**Skin Contact:** Wash with soap and water. Get medical attention if irritation develops.

**Ingestion:** Wash out mouth with water. If material has been swallowed and the exposed person is

conscious

, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if you feel unwell.

### **Most important symptoms/effects, acute and delayed / Potential acute health effects**

**Eye contact Inhalation:** Causes serious eye damage.

**Inhalation:** May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin Contact:** No known significant effects or critical hazards.

**Ingestion:** Harmful if swallowed. May cause burns to mouth, throat and stomach.

### **Over-exposure signs/symptoms**

**Eye contact:** Adverse symptoms may include the following: pain, watering, redness

**Inhalation:** No specific data

**Skin contact:** No specific data

**Ingestion:** Adverse symptoms may include stomach pains

### **Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician:** Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments:** No specific treatment.

**Protection of first-aiders:** No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**See toxicological information (Section 11)**

## **Section 5. Fire Fighting Measures**

**Suitable Extinguishing Media:** Use flooding quantities of water for extinction.

**Unsuitable Extinguishing Media:** Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand.

**Specific Hazards Arising from the Chemical:** No specific fire or explosion hazard.

**Hazardous Thermal Decomposition Products:** Avoid breathing dusts, vapors or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.

**Remark:** Non-flammable substance.

**Special Protective Actions for Fire-Fighters:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or

without suitable training.

**Special Protective Equipment for Fire-Fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Remark:** Non-flammable.

**Remark:** None.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders:** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel"

**Personal precautions, protective equipment and emergency procedure:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental precaution:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air)

### Methods and Material for containment and cleaning up

**Small spill:** Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill:** Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## Section 7. Handling and storage

**Protective measure:** Put on appropriate personal protective equipment (see section 8). Do not get in eyes or skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advise on General Occupational Hygiene:** Eating drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities:** Store in accordance with local

regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep away from: organic materials, oil and grease.

## Section 8. Exposure controls / personal protection

### Control Parameters

**Occupational exposure limits:** None.

**Appropriate Engineering Controls:** If user operations generate dust, fumes gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual Protection Measures

**Hygiene Measures:** A washing facility or water for eye and skin cleaning purposes should be present.

**Eye/Face Protection:** Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.  
Recommended: Tightly-fitting goggles

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.  
>8 hours (breakthrough time): Protective gloves should be worn under normal conditions of use.

**Body Protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

**Other skin protection:** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection:** Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## Section 9. Physical and chemical properties

<b>Physical State</b>	:	Solid (Prills)
<b>Color</b>	:	White
<b>Odor</b>	:	Odorless
<b>Odor threshold</b>	:	Not determined
<b>pH</b>	:	5-7 (Conc.: 110 g/l)
<b>Melting/Freezing Point</b>	:	400 °C (752.00 °F)
<b>Boiling/Condensation point</b>	:	Not determined
<b>Sublimation Temperature</b>	:	Not determined

Flash Point	:	Not determined
Evaporation Rate	:	Not determined
Flammability	:	Non-flammable
Lower and Upper Explosive (Flammable) Limits	:	Lower & Upper not determined
Vapor Pressure	:	Not determined
Relative Density	:	Not determined
Solubility	:	> 100 g/l Easily soluble in the following materials: cold water
Solubility in Water	:	> 100 g/l
Partition Coefficient: Noctanol/Water	:	Not determined
Auto-ignition Temperature	:	Not determined
Decomposition Temperature	:	Not determined
Viscosity	:	Dynamic & Kinematic not determined
Explosive Properties	:	None
Oxidizing Properties	:	None

## Section 10. Stability and Reactivity

**Reactivity:** No specific test data related to reactivity available for this product or its ingredients.

**Chemical Stability:** The product is stable

**Possibility of Hazardous Reactions:** Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to Avoid:** Avoid contamination by any source including metals, dust and organic materials.

**Incompatible Materials:** Alkalis, combustible materials reducing materials, organic materials, and acids

**Hazardous decomposition products:** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on Toxicological effects

#### Acute Toxicity

Product Name/Ingredient	Results	Species	Dose	Exposure	References
Nitric Acid, Ammonium Calcium Salt	LD50 Oral	Rat	500 mg/kg 423 Acute Oral toxicity – Acute Toxic Class Method	-	IUCLID 5
	LD50 Dermal	Rat	>2,000 mg/kg OECD 402	-	IUCLID 5

**Conclusion/Summary** : Harmful if swallowed.

#### Irritation/Corrosion

Product/Ingredient Name	Result	Species	Score	Exposure	Observation	References
Nitric acid, ammonium calcium salt	Eyes- Severe irritant OECD 405	Rabbit	-	24-72 h	21 d	IUCLID

## Conclusion/Summary

**Skin:** Non-irritating to the skin.  
**Eyes:** Causes serious eye damage.

**Respiratory:** Non-irritating to the respiratory system.

## Sensitization

**Skin:** Not sensitizing

**Respiratory:** Not determined

## Mutagenicity

**Conclusion/Summary:** No mutagenic effect.

## Carcinogenicity

**Conclusion/Summary:** No known significant effects or critical hazards.

## Reproductive Toxicity

Product Name/Ingredient	Maternal Toxicity	Fertility	Development Toxin	Species	Dose	Exposure	References
Nitric Acid, Ammonium Calcium Salt	Negative	Negative	Negative	Rat	Oral: 1500 mg/kg OECD 422	53 days	IUCLID 5

**Conclusion/Summary:** No known significant effects or critical hazards.

## Teratogenicity

**Conclusion/Summary:** No known significant effects or critical hazards.

**Specific target organ toxicity (single exposure):** No known significant effects or critical hazards.

**Specific target organ toxicity (repeated exposure):** No known significant effects or critical hazards.

**Aspiration Hazard:** No known significant effects or critical hazards.

**Information on the likely routes of exposure:** Not available.

## Potential Acute Health Effects:

**Eye Contact:** Causes serious eye damage.

**Inhalation:** May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin Contact:** No known significant effects or critical hazards

**Ingestion:** Harmful if swallowed. May cause burns to mouth, throat and stomach.

## Symptoms related to the physical, chemical and toxicological characteristics

**Eye Contact:** Adverse symptoms may include the following: pain, watering and redness.

**Inhalation:** No specific data.

**Skin Contact:** No specific data.

**Ingestion:** Adverse symptoms may include the following: stomach pains

## Delayed and immediate effects and also chronic effects from short and long term exposure

### Short Term Exposure

**Potential immediate effects:** Adverse health effects are considered unlikely, when the product is used according to directions.

**Potential delayed effects:** None identified

**Long Term Exposure**

**Potential immediate effects:** Adverse health effects are considered unlikely, when the product is used according to directions.

**Potential delayed effects:** None identified.

**Potential Chronic Health Effects**

Product Name/Ingredient	Result	Species	Dose	Exposure	References
Nitric Acid, Ammonium Calcium Salt	NOAEL Oral	Rat	>1000 mg/kg OECD 407	28 days	IUCLID 5

**Conclusion/Summary:** Not toxic

**General:** No known significant effects or critical hazards

**Carcinogenicity:** No known significant effects or critical hazards.

**Mutagenicity:** No known significant effects or critical hazards.

**Teratogenicity:** No known significant effects or critical hazards.

**Developmental Effects:** No known significant effects or critical hazards.

**Fertility Effects:** No known significant effects or critical hazards.

**Over-Exposure Signs/Symptoms**

**Eye Contact:** Adverse symptoms may include the following: pain, watering, redness.

**Inhalation:** No specific data.

**Skin Contact:** No specific data.

**Ingestion:** Adverse symptoms may include the following: stomach pains

**Numerical measures of toxicity**

**Acute toxicity estimates:** Not available.

## Section 12. Ecological Information

**Toxicity**

Product Name/Ingredient	Result	Species	Exposure	References
Nitric Acid, Ammonium Calcium Salt	Acute LC50 447 Mg/l Fresh Water	Fish – Labeo Boga	48 H	IUCLID 5
Nitric Acid, Ammonium Calcium Salt	Acute EC50 > 100 mg/l Fresh Water OECD 202	Aquatic Invertebrates - Daphnia	48 H	IUCLID 5
Nitric Acid, Ammonium Calcium Salt	Acute LC50 > 100 mg/l Fresh Water OECD 201	Aquatic plants – Heterosigma Akashiwo	72 H	IUCLID 5
Nitric Acid, Ammonium Calcium Salt	Acute EC50 > 1000 mg/l Activated Sludge OECD 209	Micro- Organism	3 H	IUCLID 5



**Conclusion/Summary:** The product does not show any bioaccumulation phenomena. The product is not expected to harm the environment when used properly according to directions.

**Persistence/Degradability**

**Conclusion/Summary:** Readily biodegradable in plants and soils.

Product Ingredient/Name	Aquatic Half-Life	Photolysis	Biodegradability
Nitric Acid, Ammonium Calcium Salt	-	-	Not relevant for inorganic substances

**Bioaccumulative potential**

Product Ingredient/Name	LogPow	BCF	Potential
Nitric Acid, Ammonium Calcium Salt	< 0	-	Low

**Conclusion/Summary:** No known significant effects or critical hazards.

**Mobility in Soil:**

**Soil/water partition:** < 1

**Coefficient (KOC) Mobility:** This product may move with surface or groundwater flows because its water solubility is high

**Other adverse effects:** No known significant effects or critical hazards.

## Section 13. Disposal Considerations

**Methods of Disposal:** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**United States – RCRA Acute hazardous waste “P” List:** Not Listed

**United States – RCRA Toxic hazardous waste “U” List:** Not Listed

## Section 14. Transportation Information

**UN Class**

**UN Number:** Not regulated

**Environmental Hazards:** No

**Additional Information:** No

**IMDG****UN Number:** Not regulated**Environmental Hazards:** No**Marine Pollutant:** No**IATA****UN Number:** Not regulated.**Environmental Hazards:** No**Marine Pollutant:** No**DOT Classification****UN Number:** Not regulated**Environmental Hazards:** No**Additional Information:** No**TDG Class****UN Number:** Not regulated**Environmental Hazards:** No**Additional information:** No

**Special precautions for user:** Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accidental spillage.

**Remark:** Not a regulated product. 49 CFR 172.102. Special provision 34 specifically removes the calcium nitrate double salt (calcium nitrate and ammonium Nitrate) from the hazardous materials table 49 CFR 172.101

**IMSBC****Bulk Cargo shipping name:** CALCIUM NITRATE FERTILIZER**Class:** Not applicable**Group:** C

**Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code:** Not applicable

## Section 15. Regulatory information

**United States****U.S. Federal regulations:****United States – TSCA 12 (b) – Chemical export notification:** None of the components are listed**United States – TSCA 4 (a) – Final Test Rules:** Not listed**United States – TSCA 4 (e) – ITC Priority list:** Not listed**United States – TSCA 4 (a) – Proposed test Rules:** Not listed**United States – TSCA 4 (f) – Priority risk review:** Not listed**United States – TSCA 5(a)2 – Final significant new use rules:** Not listed**United States – TSCA 5(a)2 – Proposed significant new use rules:** Not listed**United States – TSCA 5(e) – Substances consent order:** Not listed

United States – TSCA 6 – Final risk management: Not listed

United States – TSCA 6 – Proposed risk management: Not listed

United States - TSCA 8(a) - Comprehensive assessment report (CAIR): Not listed

United States - TSCA 8(a) - Chemical risk rules: Not listed

United States - TSCA 8(a) - Dioxin/Furane precursor: Not listed

United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not determined

United States - TSCA 8(a) - Preliminary assessment report (PAIR): Not listed

United States - TSCA 8(c) - Significant adverse reaction (SAR): Not listed

United States - TSCA 8(d) - Health and safety studies: Not listed

United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Not listed

United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Not listed

United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Not listed

United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed

United States - Department of commerce - Precursor chemical: Not listed

Clean Air Act section 112(b) Hazardous Air Pollutants (HAPs): Not listed

Clean Air Act section 602 Class I Substances: Not listed

Clean Air Act section 602 Class II substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302/304: Not applicable

SARA 304 RQ: Not applicable

SARA 311/312 Classification: Immediate (acute) health hazard

#### State Regulations

**Massachusetts:** None of the components are listed.

**New York:** None of the components are listed.

**New Jersey:** None of the components are listed.

**Pennsylvania:** None of the components are listed.

#### **California Prop. 65**

This product contains a chemical (or chemicals) known to the state of California to cause cancer and birth defects or other reproductive harm.

#### International Lists

**New Zealand Inventory of chemicals (NZIoC):** All components are listed or exempted.

**Korea inventory:** All components are listed or exempted

**United states inventory (TSCA 8b):** All components are listed or exempted

**EC INVENTORY (EINECS/ELINCS):** All components are listed or exempted

## Section 16. Other information

#### Hazardous Material Information System (U.S.A)

Health	-	2
Flammability		0
Physical hazards		0

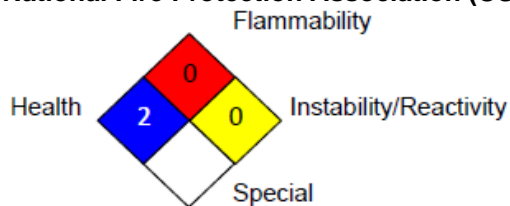
Caution: HMIS ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks although HMIS ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS ratings are to be used with a fully implemented HMIS program. HMIS is a registered mark of the national paint and coatings association (NPCA). HMIS materials may be purchased exclusively from J.J. Keller.

The customer is responsible for determining the PPE code for this material.

**Chronic toxicity:** No data available.

\*Carcinogen, Target organs, Reproductive effects, Sensitizer to lungs.

**National Fire Protection Association (USA)**



Reprinted with permission from NFPA 704-2001, Identification of the hazards of materials for emergency Response Copyright 1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright 2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NNDPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.