

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 18.12.2018

Version number 2

Revision: 18.12.2018

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

- **1.1 Product identifier**
  - **Trade name: HUMA GRO® Calcium**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.
- **Application of the substance / the mixture** Fertilizer
- **1.3 Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**

Bio Huma Netics, Inc.  
1331 W Houston Avenue  
Gilbert, Arizona 85233  
U.S.A.  
Tel. +1 800 961 1220  
Fax +1 480 425 3061  
<http://bhn.us>
  - Only Representative in the EU:

DEKRA Assurance Services GmbH  
Handwerkstr. 15  
D-70565 Stuttgart  
Germany  
<http://www.dekra-assurance-services.de>  
[reach@dekra.com](mailto:reach@dekra.com)
  - **Informing department:**

Only Representative in EC:  
DEKRA Assurance Services GmbH  
Tel.: (+49) 511 42079 311
- **1.4 Emergency telephone number:**

CHEMTREC: 1-800-424-9300 (24h emergency call).  
Outside continental USA please call CHEMTREC at +1-703-527-3887 (R-calls are accepted).

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

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- **Hazard pictograms**



GHS05

- **Signal word** Danger

- **Hazard-determining components of labelling:**

calcium nitrate  
nitric acid

- **Hazard statements**

H315 Causes skin irritation.  
H318 Causes serious eye damage.

- **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read label before use.  
P260 Do not breathe mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves / eye protection / face protection.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.  
· **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**

- **Description:**

Aqueous solution of substances listed below with additional ingredients not requiring labelling.

- **Dangerous components:**

CAS: 10124-37-5 EINECS: 233-332-1 Reg.nr.: 01-2119495093-35-0043	calcium nitrate ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	25 - 50%
CAS: 7697-37-2 EINECS: 231-714-2 Reg.nr.: 01-2119487297-23-0079	nitric acid ⚠ Ox. Liq. 2, H272; ⚠ Skin Corr. 1A, H314	≥ 2.5 - < 5%

· **Additional information** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**

· **General information** Instantly remove any clothing contaminated by the product.

- **After inhalation**

Move person to fresh air.  
In case of unsteady breathing or breathing arrest induce artificial respiration.  
Do not use mouth to mouth or mouth to nose resuscitation.  
In case of persistent symptoms consult doctor.

- **After skin contact**

Instantly wash with water and soap and rinse thoroughly.  
Remove contaminated clothing immediately.

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Wash contaminated clothing before re-use.

Call a doctor immediately.

· **After eye contact**

Keep eye lids open and rinse them with ample amounts of clean running water for at least 15 minutes.

Remove contact lenses if possible.

Call a doctor immediately.

· **After swallowing**

Rinse out mouth and then drink plenty of water.

Instantly call for doctor.

· **4.2 Most important symptoms and effects, both acute and delayed** Corrosivity

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents**

The product itself does not burn.

Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents** None known.

· **5.2 Special hazards arising from the substance or mixture**

Product releases oxygen when heated strongly which can intensify a fire.

Formation of poisonous gases during heating or in fires.

Can be released in case of fire:

Nitrogen oxides (NOx)

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus.

· **Additional information**

Cool closed containers near by fire source with water.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

· **6.2 Environmental precautions:**

Inform respective authorities in case product reaches water or sewage system.

Do not allow to enter drainage system, surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Should larger amounts of liquid run out stem it and dispose it of.

Use neutralising agent.

Complete cleaning with water.

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

· **6.4 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 information on disposal.

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### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
  - Ensure good ventilation/exhaustion at the workplace.
  - Do not inhale gases/vapours/aerosols.
  - Avoid direct contact with eyes, skin and clothing.
- **Information about protection against explosions and fires:**
  - Substance/product can reduce the ignition temperature of flammable substances.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
  - Store cool and dry in well sealed containers.
- **Information about storage in one common storage facility:**
  - Store away from flammable substances.
  - Keep away from food, drink and animal feeding stuffs.
- **Further information about storage conditions:**
  - Keep container tightly sealed.
  - Protect from heat and direct sunlight.
  - Storage between 10 and 30 °C.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
  - WEL: workplace exposure limit
  - IOELV: Indicative Occupational Exposure Limit Values, workplace threshold value of the European Union

#### 7697-37-2 nitric acid

WEL (Great Britain)	Short-term value: 2.6 mg/m <sup>3</sup> , 1 ppm
IOELV (European Union)	Short-term value: 2.6 mg/m <sup>3</sup> , 1 ppm

- **DNELs**

#### 10124-37-5 calcium nitrate

Oral	DNEL (consumer, long-term, systemic)	8.33 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	13.9 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	8.33 mg/kg bw/day (human)
Inhalative	DNEL (worker, long-term, systemic)	98 mg/m <sup>3</sup> (human)
	DNEL (consumer, long-term, systemic)	29 mg/m <sup>3</sup> (human)

- **PNECs**

#### 10124-37-5 calcium nitrate

PNEC aqua (freshwater)	0.45 mg/L (.)
PNEC STP	18 mg/L (.)
PNEC sediment (marine water)	0.045 mg/kg sedim. dw (.)
PNEC aqua (intermittent releases)	4.5 mg/L (.)

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
  - Keep away from foodstuffs, beverages and food.
  - Take off all contaminated clothing immediately.
  - Wash hands during breaks and at the end of the work.
  - Avoid contact with the eyes and skin.

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- **Breathing equipment:**  
Not necessary if room is well-ventilated.  
Use breathing protection in case of insufficient ventilation.

- **Protection of hands:**



Protective gloves.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Chloroprene rubber, CR

Nitrile rubber, NBR

- **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.

In case of a layer thickness of 0.33 mm the penetration time is longer than 480 minutes.

- **Eye protection:**



Tightly sealed safety glasses.

- **Body protection:** Wear safety footwear.

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Light yellow
<b>Odour:</b>	Acidic
<b>Odour threshold:</b>	Not determined.

- **pH-value at 20 °C:** 0.1 - 0.5  
Dilution 1 : 100 in water: pH < 2.5 at 20°C

- **Change in condition**

<b>Melting point/freezing point:</b>	< 0 °C
<b>Initial boiling point and boiling range:</b>	>100 °C

- **Flash point:** Not applicable

- **Inflammability (solid, gaseous)** Not applicable.

- **Decomposition temperature:** Not determined.

- **Self-inflammability:** Product is not selfigniting.

- **Explosive properties:** Product is not explosive.

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· <b>Critical values for explosion:</b> <b>Oxidising properties</b>	Dried product might have oxidizing properties.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density</b>	Not determined
· <b>Relative density at 20 °C</b>	1.39 - 1.46
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
Avoid temperatures above 30°C.  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Light metals  
Reducing agents  
alkali hydroxides  
combustible materials
- **10.6 Hazardous decomposition products:**  
None in case of intended use and storage in compliance with instructions.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

#### · **LD/LC50 values that are relevant for classification:**

##### 10124-37-5 calcium nitrate

Oral	LD50	< 2,000 mg/kg (rat) (OECD 423)
Dermal	LD50	> 2,000 mg/kg (rat) (OECD 402)

- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

#### · **Repeated dose toxicity**

##### 10124-37-5 calcium nitrate

Oral	NOAEL (28d)	1,000 mg/kg bw/day (rat) (OECD 407)
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- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.

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- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### · 12.1 Toxicity

##### · **Aquatic toxicity:**

##### 10124-37-5 calcium nitrate

EC50	490 mg/l/48h (Daphnia magna)
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LC50	1,378 mg/l/96h (Poecilia reticulata) (OECD 203)
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- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** There are no data available about the preparation.
- **12.3 Bioaccumulative potential** Does not accumulate in organisms
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**

##### · **Behaviour in sewage processing plants:**

##### 10124-37-5 calcium nitrate

EC50	> 1,000 mg/l/3h (activated sludge) (OECD 209)
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##### · **Additional ecological information:**

##### · **General notes:**

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

##### · **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

#### · 13.1 Waste treatment methods

##### · **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

The waste code numbers mentioned are recommendations based on the probable use of the product.

##### · **European waste catalogue**

02 00 00	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01 00	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 08*	agrochemical waste containing hazardous substances
06 00 00	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 10 00	wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture
06 10 02*	wastes containing hazardous substances
HP 4	Irritant - skin irritation and eye damage
HP 6	Acute Toxicity

##### · **Uncleaned packagings:**

##### · **Recommendation:**

Dispose of packaging according to regulations on the disposal of packagings.

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Non contaminated packagings can be used for recycling.  
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.  
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

<ul style="list-style-type: none"> <li>· <b>14.1 UN-Number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	UN1760
<ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID) CORROSIVE LIQUID, N.O.S. (NITRIC ACID)
<ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 (C9) Corrosive substances. 8
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 Corrosive substances. 8
<ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	III
<ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> <li>· <b>Kemler Number:</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Segregation groups</b></li> <li>· <b>Stowage Category</b></li> <li>· <b>Stowage Code</b></li> </ul>	Warning: Corrosive substances. 80 F-A,S-B Acids A SW2 Clear of living quarters.
<ul style="list-style-type: none"> <li>· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	<hr style="border-top: 1px dashed black;"/>
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<ul style="list-style-type: none"> <li>· <b>Transport category</b></li> <li>· <b>Tunnel restriction code</b></li> </ul>	3 E
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml

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	Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID), 8, III

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Directive 2012/18/EU**
  - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
  - **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
  - **National regulations**
  - **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - **Substances of very high concern (SVHC) according to REACH, Article 57**
- |                                       |
|---------------------------------------|
| None of the ingredients is contained. |
|---------------------------------------|
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**  
 H272 May intensify fire; oxidiser.  
 H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.
- **Department issuing data specification sheet:**  
 This Material Safety Data Sheet has been drawn up in cooperation with:  
 DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,  
 phone: (+49) 511 42079 - 0, reach@dekra.com.  
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- **Abbreviations and acronyms:**  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 SVHC: Substances of Very High Concern  
 vPvB: very Persistent and very Bioaccumulative  
 Ox. Liq. 2: Oxidizing liquids – Category 2  
 Acute Tox. 4: Acute toxicity – Category 4  
 Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- **\* Data compared to the previous version altered.**