

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

## 1 Identification

- **Product identifier**
- **Trade name:** Calcium granules
- **Article number:** 219630
- **CAS Number:**  
7440-70-2
- **EC number:**  
213-179-5
- **Index number:**  
020-001-00-X
- **Application of the substance / the mixture** Laboratory chemicals for research and development
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
BeanTown Chemical  
9 Sagamore Park Road  
Hudson, NH 03051  
USA  
  
Phone: (603) 402-2234  
Fax: (603) 402-9713  
Email: [technical@beantownchem.com](mailto:technical@beantownchem.com)  
[www.beantownchem.com](http://www.beantownchem.com)
- **Information department:** Technical Support Department
- **Emergency telephone number:**  
During normal operating hours, please call (603) 402-2234  
After hours, please call Chemtrec at (800) 424-9300

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Water-react. 2 H261 In contact with water releases flammable gas.

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



GHS02

- **Signal word** Danger
- **Hazard statements**  
In contact with water releases flammable gas.
- **Precautionary statements**  
Do not allow contact with water.  
Handle under inert gas. Protect from moisture.  
Wear protective gloves/protective clothing/eye protection/face protection.  
In case of fire: Use for extinction: CO2, sand, extinguishing powder.  
Store in a dry place. Store in a closed container.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

Trade name: Calcium granules

(Contd. of page 1)

- Dispose of contents/container in accordance with local/regional/national/international regulations.
- **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**  
7440-70-2 calcium
- **Identification number(s)**
- **EC number:** 213-179-5
- **Index number:** 020-001-00-X

## 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:**  
Extinguishing powder. Do not use water.  
CO<sub>2</sub>. Do not use water.  
Sand. Do not use water.  
Special powder for metal fires. Do not use water.  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** Water
- **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**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

Trade name: Calcium granules

(Contd. of page 2)

- **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**

|                 |
|-----------------|
| · <b>PAC-1:</b> |
|-----------------|

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|--------------------------|
| Substance is not listed. |
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| · <b>PAC-2:</b> |
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| Substance is not listed. |
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| · <b>PAC-3:</b> |
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| Substance is not listed. |
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## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling** *No special precautions are necessary if used correctly.*
- **Information about protection against explosions and fires:** *Keep ignition sources away - Do not smoke.*
- **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:**  
*Keep receptacle tightly sealed.*  
*Store in cool, dry conditions in well sealed receptacles.*
- **Specific end use(s)** *No further relevant information available.*

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:**  
*Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute*
- **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:**  
*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.*

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

Trade name: Calcium granules

(Contd. of page 3)

- **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.

## 9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

**Form:** Solid

**Color:** White

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

**Melting point/Melting range:** 850 °C (1,562 °F)

**Boiling point/Boiling range:** 1,484 °C (34.784 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Contact with water liberates extremely flammable gases.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Not determined.

- **Danger of explosion:** Not determined.

- **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

- **Vapor pressure at 20 °C (68 °F):** 0 hPa

- **Density at 20 °C (68 °F):** 1.54 g/cm<sup>3</sup> (12.8513 lbs/gal)

- **Bulk density:** 700 kg/m<sup>3</sup>

- **Relative density** Not determined.

- **Vapor density** Not applicable.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

**Water at 20 °C (68 °F):** 4 g/l

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

**Dynamic:** Not applicable.

**Kinematic:** Not applicable.

**VOC content:** 0.00 %

**Solids content:** 100.0 %

- **Other information** No further relevant information available.

US

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

Reviewed on 07/08/2024

Trade name: Calcium granules

(Contd. of page 4)

## 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** Contact with water releases flammable gases.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 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**

|                                                             |
|-------------------------------------------------------------|
| · <b>IARC (International Agency for Research on Cancer)</b> |
|-------------------------------------------------------------|

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|--------------------------|
| Substance is not listed. |
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|                                            |
|--------------------------------------------|
| · <b>NTP (National Toxicology Program)</b> |
|--------------------------------------------|

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| Substance is not listed. |
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|                                                                    |
|--------------------------------------------------------------------|
| · <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b> |
|--------------------------------------------------------------------|

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|--------------------------|
| 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 (Assessment by list): 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.

US

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

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Reviewed on 07/08/2024

Trade name: Calcium granules

(Contd. of page 5)

## 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>                                                                | UN1401                                                                                                                                                                                                                                                                                      |
| · <b>DOT, IMDG, IATA</b>                                                          |                                                                                                                                                                                                                                                                                             |
| · <b>UN proper shipping name</b>                                                  | Calcium                                                                                                                                                                                                                                                                                     |
| · <b>DOT</b>                                                                      | CALCIUM                                                                                                                                                                                                                                                                                     |
| · <b>IMDG, IATA</b>                                                               |                                                                                                                                                                                                                                                                                             |
| · <b>Transport hazard class(es)</b>                                               |                                                                                                                                                                                                                                                                                             |
| · <b>DOT, IMDG, IATA</b>                                                          |                                                                                                                                                                                                                                                                                             |
| · <b>Class</b>                                                                    | 4.3 Substances which, in contact with water, emit flammable gases                                                                                                                                                                                                                           |
| · <b>Label</b>                                                                    | 4.3                                                                                                                                                                                                                                                                                         |
| · <b>Packing group</b>                                                            |                                                                                                                                                                                                                                                                                             |
| · <b>DOT, IMDG, IATA</b>                                                          | II                                                                                                                                                                                                                                                                                          |
| · <b>Environmental hazards:</b>                                                   |                                                                                                                                                                                                                                                                                             |
| · <b>Marine pollutant:</b>                                                        | No                                                                                                                                                                                                                                                                                          |
| · <b>Special precautions for user</b>                                             | Warning: Substances which, in contact with water, emit flammable gases                                                                                                                                                                                                                      |
| · <b>Hazard identification number (Kemler code):</b>                              | 423                                                                                                                                                                                                                                                                                         |
| · <b>EMS Number:</b>                                                              | F-G,S-O                                                                                                                                                                                                                                                                                     |
| · <b>Stowage Category</b>                                                         | E                                                                                                                                                                                                                                                                                           |
| · <b>Handling Code</b>                                                            | H1 Keep as dry as reasonably practicable                                                                                                                                                                                                                                                    |
| · <b>Segregation Code</b>                                                         | SG26 In addition: from goods of classes 2.1 and 3 when stowed on deck of a containership a minimum distance of two container spaces athwartship shall be maintained, when stowed on ro-ro ships a distance of 6 m athwartship shall be maintained.<br>SG35 Stow "separated from" SGG1-acids |
| · <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable.                                                                                                                                                                                                                                                                             |
| · <b>Transport/Additional information:</b>                                        |                                                                                                                                                                                                                                                                                             |
| · <b>DOT</b>                                                                      |                                                                                                                                                                                                                                                                                             |
| · <b>Quantity limitations</b>                                                     | On passenger aircraft/rail: 15 kg<br>On cargo aircraft only: 50kg                                                                                                                                                                                                                           |
| · <b>IMDG</b>                                                                     |                                                                                                                                                                                                                                                                                             |
| · <b>Limited quantities (LQ)</b>                                                  | 500 g                                                                                                                                                                                                                                                                                       |
| · <b>Excepted quantities (EQ)</b>                                                 | Code: E2<br>Maximum net quantity per inner packaging: 30 g<br>Maximum net quantity per outer packaging: 500 g                                                                                                                                                                               |

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2024

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Trade name: Calcium granules

(Contd. of page 6)

· UN "Model Regulation":

UN 1401 CALCIUM, 4.3, II

## 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 not listed.

· **TSCA (Toxic Substances Control Act):**

ACTIVE

· **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.

· **RTECS**

Substance is not listed.

· **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.

· **NFPA ratings (scale 0-4)**

Health = 0

Fire = 0

Reactivity = 2

The substance demonstrates unusual reactivity with water.

(Contd. on page 8)

**Safety Data Sheet**  
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**Trade name: Calcium granules**

(Contd. of page 7)

**· HMIS ratings (scale 0-4)**

Health = 0

Fire = 0

Reactivity = 2

**· Department issuing SDS:** Technical Support Department**· Contact:** Technical Support Department**· Date of preparation / last revision** 07/09/2024 / -**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Water-react. 2: Substances and mixtures which in contact with water emit flammable gases – Category 2

US