

Material Safety Data Sheet

Calcium Gluconate

Section 1 - Product Identification

Synonyms : Calcium (2R,3S,4R,5R)- 2,3,4,5,6-pentahydroxyhexanoate
Molecular Weight : 430.37 g/mol
Chemical Formula : $C_{12}H_{22}CaO_{14}$
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Recommended use of the chemical and restrictions on use:

Research and Development, Manufacturing

Section 2 – Composition/Information on Ingredients

Product Name	EC/CAS No	Concentration
Calcium Gluconate	206-075-8/299-28-5	>= 99.0%

Section 3 – Hazards Identification

3.1 GHS Classification

Not a hazardous substance or mixture

3.2 Label elements

Not a hazardous substance or mixture

3.3 Other hazards

N.A.

Section 4 – First-Aid Measures

4.1. Description of first aid measures

Skin contact

Wash off with soap and plenty of water.

Eye contact

Flush eyes with water as a precaution.

Inhalation

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Ingestion

Never give anything by mouth to an unconscious person. Rinse mouth with water.

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

Most important known symptoms and effects are described in the labelling (section 2.2) and/or in section 11.

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

N.A.

Section 5 – Fire Fighting Measures

5.1. Suitable Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Specific hazards arising from the chemical

Carbon oxides, Calcium Oxide

5.3. Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary

5.4. Further information

Section 6 – Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

Section 7 – Handling and Storage

7.1. Precautions for safe Handling

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Section 8 – Exposure Controls/Personal Protection

8.1. Control parameters

Contains no substances with occupational exposure limit values.

8.2. Appropriate engineering controls

General industrial hygiene practice. Wash hands before breaks and at the end of workday.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Respirator:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Clothing:

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Gloves:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection:

Wear safety goggles or face shield which are tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance : White powder

Odour : N.A.

Odour threshold : N.A.

pH @ 20°C : N.A.

Melting point : N.A.

Boiling point : N.A.

Flash point : N.A.

Evaporation rate : N.A.

Flammability : N.A.

Upper/lower flammability or explosive limits : N.A.

Vapour pressure : N.A.

Vapour density : N.A.

Relative density : N.A.

Solubility in water : N.A.

Partition coefficient, n-octanol/water: N.A.

Auto-ignition temperature: N.A.

Decomposition Temperature: 100°C

Section 10 – Stability and Reactivity

10.1. Reactivity

N.A.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

N.A.

10.4. Conditions to avoid:

N.A.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions – carbon oxides and calcium oxides.

Section 11 – Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 950 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 – Ecological Information

12.1. Toxicity

No data available

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Other adverse effects

No data available

Section 13 – Disposal Considerations

13.1. Disposal methods

Product:

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging:

Dispose of as unused product.

Section 14 – Transport Information

- 14.1. UN number :** ADR/RID: - IMDG: - IATA-DGR: -
- 14.2. UN proper shipping name:** ADR/RID, IMDG, IATA-DGR – Not dangerous goods
- 14.3. Transport of hazard classes :** ADR/RID: - IMDG: - IATA-DGR: -
- 14.4. Packing group :** ADR/RID: - IMDG: - IATA-DGR: -
- 14.5. Environmental hazards :** ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no
- 14.6. Special precautions for user :** No data available
- 14.7. Incompatible materials:** Strong oxidizing agents

Section 15 – Regulatory Information

15.1. Safety, health and environmental regulations for the substance/mixture:

Notification status

AICS: On the inventory, or in compliance with the inventory

DSL: All components of this product are on the Canadian DSL

ENCS: On the inventory, or in compliance with the inventory

ISHL: On the inventory, or in compliance with the inventory

KECI: On the inventory, or in compliance with the inventory

NZIoC: On the inventory, or in compliance with the inventory

PICCS: On the inventory, or in compliance with the inventory

Section 16 : Additional Information

16.1. Disclaimer of Liability

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