



Specification

Product Name: Calcium Lactate

Product Code: SPEC0006

Description:

Our Calcium Lactate is a premium quality product and an extract of Lactic Acid. It works well in the production of Caviar, pearls, spaghetti and spheres using spherification techniques. Calcium Lactate can also be used to coat fresh fruit and cantaloupes to keep them firm and extend the shelf life. It's a white non-hygroscopic salt and is a recommended source of calcium. It provides calcium salts in a soluble form to react with Alginate, Gellan or certain kinds of Carrageenan which permit gel formation without heating. Its taste is more discreet than Calcium Chloride (salty and sometimes bitter). Calcium Lactate is recommended for all reactions of inverse spherification and reacts where Alginate and Calcium sources are intimately mixed when in a diffuse setting or full contact gelling. Calcium Lactate also works well in the production of drops, Caviar pearls and all shapes of spaghetti by immersion of an Alginate solution in a Calcium setting bath.

Formula (Molecular): $(\text{CH}_3\text{CHOHCOO})_2\text{Ca}\cdot 5\text{H}_2\text{O}$

Chemical name: Calcium-2-hydroxypropanoate

CAS No.: 814-80-2

Specifications:

Specifications	
Assay	98 - 101 %
Loss on drying	22 - 27 %
Magnesium + Alkali salts	Max 1 %
Acidity (On Dry matter)	Max 0.45 %
pH (5% Solution)	6 - 8
Reducing Substances	No reduction on Fehling's solution
Granulations (< 30%)	>95 %
Total Heavy Metals	<10 ppm, mg/kg
Arsenic	<2 ppm, mg/kg
Lead	<2 ppm, mg/kg
Mercury	<1 ppm, mg/kg
Fluoride	<15 ppm, mg/kg
Iron (Fe)	<50 ppm, mg/kg

Microbiological	
Total plate count	<1000 cfu/g
Yeasts	<100 cfu/g
Moulds	<100 cfu/g

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Salmonella	Absent/25g
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Ingredients:

Calcium Lactate (E327).

Dietary Information:

Suitable for Vegans & Vegetarians, Non-GMO, Gluten Free.

Nutritional Information:

Based on typical content/100g: Energy: 927kj/222kcal, Fat: 0g, Carbohydrates: 62g, Of which sugars: 0g, Protein: 0g, Salt: 0g.

Storage:

Store in dry, cool conditions and not in direct sunlight.

Packaging:

Size	EAN
50g	5060341111075
100g	5056191012174
250g	5060341111136
500g	5060341111396
5kg	5056191004780
10kg	5056191004797

Shelf Life:

36 months from production date.

Allergen Declaration

Allergen	Contains (Y/N)
Cereals containing Gluten	N
Crustaceans	N
Eggs	N
Fish	N
Peanuts	N
Soybeans	N
Milk	N
Nuts	N
Celery	N
Mustard	N
Sesame Seeds	N
Sulphur Dioxide and Sulphites (at concentration of more than 10mg/kg or 10mg/L in terms of Sulphur Dioxide)	N
Lupin	N
Molluscs	N



Material Safety Data Sheet

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

1.1 – Product Identifier

Product Form: Substance
Substance Name: Calcium Lactate
Chemical name: Calcium lactate
EC-No.: 212-406-7
CAS-No.: 814-80-2
Product group: Raw material

1.2 – Relevant identified uses of the substance or mixture and uses advised against

1.2.1: Relevant identified uses
Main use category: Industrial use
Industrial/Professional use spec: Food/feedstuff additives
Use of the substance/mixture: Preservative
Food industry: Preserving agent
Feed additive
Function or use category: Food/feedstuff additives

1.3 – Suppliers Details

Special Ingredients Ltd, 4 Foxwood View, Chesterfield, S41 9RN. Tel: 0044 (0)1246 906247.
E-mail address: <https://specialingredients.co.uk/pages/contact>.
Emergency Telephone Contact: 07701 095864.

2: Hazard Identification:

2.1 – Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]: Not classified.
Adverse physicochemical, human health and environmental effects: No additional information available

2.2 – Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: No labelling applicable

2.3 – Other hazards

No additional information available

3: Composition and Information on Ingredients:

3.1 – Substances

Substance type: Mono-constituent

Name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium Lactate	(CAS-No.) 814-80-2 (EC-No.) 212-406-7	≤ 97	Not classified

3.2 – Mixtures

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Not applicable

4: First Aid Measures:

4.1 – Description of first aid measures

First-aid measures after inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove the victim into fresh air.

First-aid measures after skin contact: Rinse with water. Soap may be used. When symptoms occur: rinse immediately with plenty of water.

First-aid measures after eye contact: Rinse immediately with plenty of water.

First-aid measures after ingestion: Immediately consult a doctor/medical service. Ingestion of large quantities: immediately to hospital.

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

Symptoms/effects after inhalation: Irritation of the respiratory tract.

Symptoms/effects after skin contact: Contact during a long period may cause light irritation.

Symptoms/effects after eye contact: May cause slight irritation.

Symptoms/effects after ingestion: Irritation of the gastric/intestinal mucosa.

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

No additional information available

5: Firefighting Measures:

5.1 – Extinguishing media

Suitable extinguishing media: Carbon dioxide. Water.

5.2 – Special hazards arising from the substance or mixture

No additional information available

5.3 – Advice for firefighters

No additional information available

6: Accidental Release Measures:

6.1 – Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Protective clothing.

6.1.2. For emergency responders

No additional information available

6.2 – Environmental precautions

No additional information available.

6.3 – Methods and material for containment and cleaning up

For containment: Collect spillage.

Methods for cleaning up: Clean contaminated surfaces with an excess of water.

7: Handling And Storage:

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7.1 – Precautions for safe handling

Precautions for safe handling: Avoid contact with skin and eyes. Keep container tightly closed.

7.2 – Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep container tightly closed. Store in a dry place.

Incompatible products: Oxidizing agent.

7.3 – Specific end use(s)

No additional information available.

8: Exposure Controls/ Personal Protection:**8.1 – Control parameters**

No additional information available

8.2 – Exposure controls

Personal protective equipment: Dust formation: dust mask. Safety glasses.

Hand protection: Protective gloves

Eye protection: Safety glasses

Skin and body protection: Wear suitable protective clothing

Respiratory protection: Dust formation: dust mask.

Personal protective equipment symbol(s):**9: Physical and Chemical Properties:****9.1 – Information on basic physical and chemical properties**

Physical state: Solid

Appearance: Powder.

Colour: white.

Molecular mass: 308,29 g/mol

Colour: White.

Odour: Odourless.

Odour threshold: No data available

pH: 6 ($\geq$ 8) (5% solution)

Relative evaporation rate (butylacetate=1): No data available

Melting point: > 200 °C

Freezing point: No data available

Boiling point: No data available

Flash point: No data available

Auto-ignition temperature: No data available

Decomposition temperature: > 200 °C

Flammability (solid, gas): No data available

Vapour pressure: No data available

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Relative vapour density at 20 °C: No data available
Relative density: No data available
Solubility: Water: 7 – 9 g / 100g (25°C)
Partition coefficient n-octanol/water (Log Pow): No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidising properties: No data available
Explosive limits: No data available

9.2 – Other information

No additional information available

10: Stability and Reactivity:

10.1 – Reactivity

No additional information available

10.2 – Chemical stability

No additional information available

10.3 – Possibility of hazardous reactions

No additional information available

10.4 – Conditions to avoid

Heat

10.5 – Incompatible materials

Oxidizing agent.

10.6 – Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

11: Toxicological Information:

11.1 – Information on toxicological effects

Acute toxicity (oral): Not classified
Acute toxicity (dermal): Not classified
Acute toxicity (inhalation): Not classified
Skin corrosion/irritation: Not classified
pH: 6 ($\geq$ 8) (5% solution)
Serious eye damage/irritation: Not classified
pH: 6 ($\geq$ 8) (5% solution)
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Additional information: Not listed by ACGIH, IARC, NIOSH, NTP, OSHA

Calcium Lactate (814-80-2)

NOAEL (chronic, oral, animal/male, 2 years)	not available
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Reproductive toxicity: Not classified
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified

12: Ecological Considerations:

12.1 – Toxicity

Hazardous to the aquatic environment, short-term (acute): Not classified
Hazardous to the aquatic environment, long-term (chronic): Not classified

12.2 – Persistence and degradability

No additional information available

12.3 – Bioaccumulative potential

No additional information available

12.4 – Mobility in soil

No additional information available

12.5 – Other adverse effects

No additional information available

12.6 – Other adverse effects

No additional information available

13: Disposal considerations:

13.1 – Waste treatment methods:

No additional information available

14: Transport Information:

In accordance with ADR / RID / IMDG / IATA / AND

14.1 – UN number

UN-No. (ADR): Not applicable
UN-No. (IMDG): Not applicable
UN-No. (IATA): Not applicable
UN-No. (ADN): Not applicable
UN-No. (RID): Not applicable

14.2 – Proper Shipping Name

Proper Shipping Name (ADR): Not applicable
Proper Shipping Name (IMDG): Not applicable
Proper Shipping Name (IATA): Not applicable
Proper Shipping Name (ADN): Not applicable
Proper Shipping Name (RID): Not applicable

14.3 – Transport hazard class(es)**ADR**

Transport hazard class(es) (ADR): Not applicable

IMDG

Transport hazard class(es) (IMDG): Not applicable

IATA

Transport hazard class(es) (IATA): Not applicable

ADN

Transport hazard class(es) (ADN): Not applicable

RID

Transport hazard class(es) (RID): Not applicable

14.4 – Packing group

Packing group (ADR): Not applicable

Packing group (IMDG): Not applicable

Packing group (IATA): Not applicable

Packing group (ADN): Not applicable

Packing group (RID): Not applicable

14.5 – Environmental Hazards

Dangerous for the environment: No

Marine pollutant: No

Other information: No supplementary information available

14.6 – Special precautions for user

Overland transport: No data available

Transport by sea: No data available

Air transport: No data available

Inland waterway transport: No data available

Rail transport: No data available

14.7 – Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

15: Regulatory Information:**15.1 – Safety, health and environmental national regulations specific for the product****15.1.1 EU Regulations**

No REACH Annex XVII restrictions

CALCIUM LACTATE is not on the REACH Candidate List

CALCIUM LACTATE is not on the REACH Annex XIV List

CALCIUM LACTATE is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

CALCIUM LACTATE is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2 National Regulations

Germany

Water hazard class (WGK): Not classified according to Regulation Governing Systems for Handling Substances. Hazardous to Waters (AwSV)

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Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling: The substance is not listed

15.2 Chemical safety assessment

No additional information available.

16: Other Information:

The information contained in this data sheet is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions of use are beyond our control. We do not accept any liability whatsoever, however arising, which results directly or indirectly from the use of the product.