

Product Information

Product data sheet

Calcium Ascorbate

Product code: 0419443

Description

Calcium Ascorbate is a white to yellowish, practically odourless powder, with a slightly bitter taste.

Product identification

Chemical name: calcium L-(+)-ascorbate dihydrate

Synonyms: calcium ascorbate dihydrate; calcium L-ascorbate; ascorbic acid (calcium salt); vitamin C (calcium salt)

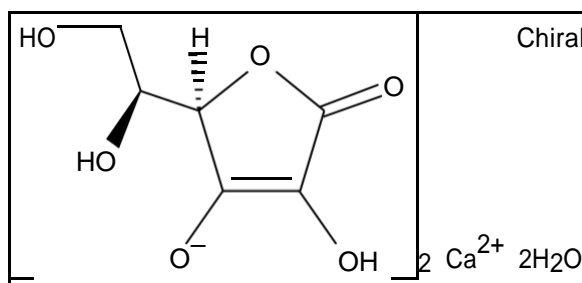
CAS No.: 5743-28-2 (as dihydrate)

EINECS No.: 227-261-5

E No.: E 302

Empirical formula: C₁₂H₁₄CaO₁₂ · 2H₂O

Molecular mass: 426.35 g/mol



Specifications

Appearance:	white to yellowish powder
Solution 10% in water:	clear, and not more intensely coloured than Ph. Eur. reference solution Y6
pH of 10% solution:	7.2 - 7.4
Identity:	corresponds
Specific rotation, 589 nm (c = 5 in water):	+95° to +97°
Specific rotation, 589 nm (c = 10 in water):	+95° to +97° (on dry material)
Loss on drying:	max. 0.1 %
Heavy metals:	max. 10 ppm
Lead:	max. 2 ppm
Mercury:	max. 1 ppm

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Cadmium:	max. 1 ppm
Zinc:	max. 25 ppm
Copper:	max. 5 ppm
Iron:	max. 2 ppm
Arsenic:	max. 3 ppm
Fluoride:	max. 10 ppm
Oxalate:	passes test
Assay:	99.0 - 100.5 % (as dihydrate)

Solubility

Calcium Ascorbate is freely soluble in water (approx. 50 g per 100 mL) and practically insoluble in alcohol.

Stability and storage

Calcium Ascorbate is fairly stable to air if protected from humidity, but is slightly sensitive to heat. It is less susceptible to discoloration than ascorbic acid. Calcium ascorbate is suitable for use in dry preparations only, because its solutions have a tendency to form precipitates of calcium oxalate. The product may be stored for 36 months from the date of manufacture in the unopened original container and at a temperature below 25°C. The 'best use before' date is printed on the label.

Uses

For the enrichment of dry food products.

For solid multivitamin and monovitamin preparations.

This product is not intended for use in the manufacture of sterile drug products. The purchaser assumes all responsibility for additional processing, testing, labelling and registration required for such use.

Compendial compliance

Calcium Ascorbate meets all requirements of the USP, FCC and Ph. Eur. when tested according to these compendia.

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Safety

This product is safe for the intended use. Avoid ingestion, inhalation of dust or direct contact by applying suitable protective measures and personal hygiene.

For full safety information and necessary precautions, please refer to the respective DSM Material Safety Data Sheet.

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Additional information

To find out more about our ingredients, please contact your nearest DSM Nutritional Products office.

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