



PRODUCT IN FOCUS



Calcium Gluconate

INTRODUCTION

Calcium Gluconate is the calcium salt of gluconic acid, an oxidation product of glucose, and contains 9.3% calcium, which is about one-third of the calcium in the strength of calcium chloride. It is an ingredient found in a variety of supplements and vitamins and is used to lower potassium in the blood. Calcium gluconate is used as a mineral supplement and medication when there is insufficient calcium in the diet. Supplementation may be done to treat or prevent osteoporosis or rickets, consequences of hypocalcemia.

Manufacture

It is made by mixing gluconic acid with calcium carbonate or calcium hydroxide

Applications

- ✔ Calcium gluconate is used to prevent or treat calcium deficiencies. Oral calcium salts are used as dietary supplemental therapy for people who may not get enough calcium in their regular diet
- ✔ Calcium gluconate is used as a cardioprotective agent in high blood potassium
- ✔ Calcium gluconate is the antidote for magnesium sulfate toxicity

Calcium gluconate is also used as/for:

- ✔ Hyperkalemia
- ✔ Hypocalcemia tetany
- ✔ Dietary Supplement
- ✔ Hungry Bone Syndrome
- ✔ Tumor Lysis Syndrome

Synonyms	Calcium di-(D-gluconate) D-Gluconic acid calcium salt
CAS no.	299-28-5
EINECS no.	206-075-8
Molecular formula	$C_{12}H_{22}CaO_{14}$
Molecular weight	430.37
Structure	



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SPECIFICATIONS – for injection, EP

Test	Unit	Specification
Appearance	-	White or almost white, crystalline or granular powder
Solubility	-	Sparingly soluble in water, freely soluble in boiling water
Identification		
A. TLC	-	Shall pass the test
B. Reaction of Calcium	-	Shall pass the test
Appearance of solution	-	At 60°C, solution S is not more intensely colored than reference solution B7. After cooling to 20°C, it is not more opalescent than reference suspension II.
pH	-	Between 6.4 and 8.3
Organic impurities & Boric acid	-	Shall pass the test
Oxalates	ppm	Max 100
Sucrose & reducing sugars	-	No red precipitate is formed
Chlorides	ppm	Max 50
Phosphates	ppm	Max 100
Sulphates	ppm	Max 50
Iron	ppm	Max 5
Magnesium & alkali metals	%	Max 0.4
Assay as C ₁₂ H ₂₂ CaO ₁₄ H ₂ O	%	Between 99.0 and 101.0
<u>Microbial Contamination</u>		
Bacterial endotoxins	IU/g	Max 167
Total aerobic microbial count	CFU/g	Max 10 ²



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STORAGE

Store in a cool & dry place. Keep away from moisture.

PACKING

25 kg drum.

REGISTRATION / CERTIFICATION

US-DMF, CEP, EU-GMP, EU-WC (Written Confirmation)

No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.