

Food Grade Anhydrous 94–97%

Calcium Chloride Pellets



General Description

Food Grade Anhydrous 94–97% Calcium Chloride Pellets from The Dow Chemical Company are manufactured according to the U.S. Food and Drug Administration's (FDA's) Good Manufacturing Practice (GMP) requirements. This product is intended for use as a direct food additive, and will meet or exceed the current edition of the Food Chemicals Codex (FCC) monograph for anhydrous calcium chloride. Food Grade Anhydrous 94–97% Calcium Chloride Pellets are Kosher certified and comply with Halal requirements.

Properties¹ of Food Grade Anhydrous 94–97% Calcium Chloride Pellets

Physical State	Solid pellets
Color	White
Odor	Odorless
Hygroscopic	Yes
Assay, % by Weight	
Calcium chloride	94.5%
Potassium chloride	2.5%
Sodium chloride	1.6%
Calcium bromide	0.9%
Water	0.5%

FCC Requirements for Anhydrous Calcium Chloride

Fluoride	< 0.004%
Lead	< 5 mg/kg
Magnesium and alkali salts	< 5.0%
Acid-insoluble matter	< 0.02%
Acid-insoluble particle size	< 2 mm
Arsenic	< 3 mg/kg

Applications

Food Grade Anhydrous 94–97% Calcium Chloride Pellets are most often used in solution form to enhance the flavor and/or texture of food products. In cheese-making, calcium chloride helps achieve desirable setting times and curd firmness, without adversely influencing cheese composition or quality. Calcium chloride solutions are effective in retarding the softening of processed pickles. In beer brewing, the addition of calcium chloride to brewing water reduces the pH of beer and increases the extract yield without negatively affecting taste.

Food Grade Anhydrous 94–97% Calcium Chloride Pellets are not recommended for food or beverage applications where a reaction of bromide impurity with oxidizing materials, such as ozone, may generate trace levels of impurities, such as bromate.

¹ These data are laboratory results typical of the product, and should not be confused with or regarded as specifications.



Nutritional Summary²

Based on 100-g sample

Ash	99 g	Chloride	62 g
Water	1 g	Calcium	34 g
Carbohydrates	0 g	Potassium	1288 mg
Fat	0 g	Sodium	650 mg
Protein	0 g		

Sales Specification and Certificate of Analysis

The sales specification for Food Grade Anhydrous 94–97% Calcium Chloride Pellets contains all of the specification items listed in FCC for anhydrous calcium chloride, plus two requirements governing pellet size. Three monograph specification items with a long history of levels at or below detection limits (fluoride, lead and arsenic) are audited once per production campaign. Every lot is analyzed for the remaining specification item. A Certificate of Analysis (CoA) is provided with every product shipment, containing the test results for all specification items.

Product Quality Management

Food Grade Anhydrous 94–97% Calcium Chloride Pellets are manufactured in Dow facilities, and transported by rail for packaging by a contract packager. Both facilities are located in Ludington, Michigan, and both use rigorous quality-control procedures to ensure outstanding product quality and application reliability. Current Good Manufacturing Practice (cGMP) principles, as published by the International Pharmaceutical Excipients Council (IPEC), are applied by Dow and its contract packager during all manufacturing and handling steps for Food Grade Anhydrous 94–97% Calcium Chloride Pellets.

Regulatory Information

This product, when used unmodified, will comply with the U.S. FDA Food Additive Regulations 21 CFR 184.1193 and 21 CFR 582.1193. These regulations affirm that the product is Generally Recognized As

² All “non-zero” values are based on internal laboratory analysis. All “zero” values are estimates based on process knowledge and chemical structure.

NOTICE: No freedom from any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer’s use and for ensuring that Customer’s workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

Safe (GRAS) for use in human foods. The uses above are subject to the GMP requirements and any limitations that are part of the regulations. The regulations should be consulted for complete details.

Availability

Food Grade Anhydrous 94–97% Calcium Chloride Pellets are available in 50-lb plastic bags.

Storage and Handling

Food Grade Anhydrous 94–97% Calcium Chloride Pellets have a shelf life of two years when stored in a manner that protects the product from absorption of significant amounts of atmospheric moisture.

For most handling situations, no precautions other than clean, body-covering clothing should be needed. Use of specific items such as goggles, gloves and aprons will depend on the specific application. Eye and face protection is recommended when handling solutions in a manner where splashing or spraying is possible. Avoid contact with leather.



The Dow Chemical Company is the world’s largest and most trusted manufacturer of calcium chloride products for use in a wide variety of applications.

Visit www.dowcalciumchloride.com for more information and for access to the Dow Answer Center. The Answer Center offers a comprehensive, searchable online knowledge base with answers to frequently asked questions and an “Ask an Expert” feature for your more specialized inquiries.

To find an authorized distributor near you or for more information about Food Grade Anhydrous 94–97% Calcium Chloride Pellets, please call our Customer Information Group:

United States or Canada, (800) 447-4369

Other locations worldwide, U.S.A. (989) 832-1466

