

Description

LIQUIDOW Food Grade is a purified calcium chloride solution intended for direct addition to food products. This product is manufactured to meet or exceed the current edition of the Food Chemicals Codex (FCC) monograph for calcium chloride solutions and comply with the U.S. Food and Drug Administration's (FDA) Good Manufacturing Practice (GMP) requirements. This product is Kosher certified and Halal compliant.

Application

LIQUIDOW Food Grade may be used in a variety of direct food additive applications, including fruit and vegetable canning and dairy foods processing. It may also be used in indirect food applications, such as a low-temperature heat-transfer fluid in the brewing, dairy, and ice cream industries.

Storage and Shelf Life

Store in carbon steel tanks with a nontoxic epoxy-based interior lining and epoxy-based exterior paint. Common stainless steels should not be used for the storage of liquid calcium chloride because they are subject to chloride stress cracking, even at temperatures as low as 100°F (38°C). Nonmetallic materials, such as fiberglass or plastic, may work well for smaller tanks at near ambient temperature. The puncture resistance and structural strength of these materials, relative to carbon steel, should be evaluated.

When properly stored to protect from moisture contact and maintained above crystallization temperature, the expected shelf life for liquid calcium chloride products is 36 months. Calcium chloride does not degrade or deteriorate; however, the shelf life is limited based on the potential for moisture intrusion into the product. Moisture intrusion will cause a decrease in overall calcium chloride concentration.

Typical Properties⁽¹⁾

Characteristic	Value
Assay	
Calcium chloride	32.5%
Potassium chloride	0.8%
Sodium chloride	0.5%
Calcium bromide	0.3%
FCC requirements	
Fluoride	<0.004%
Lead	<4 mg/kg
Magnesium and alkali salts	<5.0%
Alkalinity	<0.3%

(1) These data are laboratory results typical of the product, and should not be confused with or regarded as specifications. All percentages are percent by weight.

Sales Specification and Certificate of Analysis

The sales specification for this product contains all original specification items listed in FCC, plus an additional OxyChem specific test item. A Certificate of Analysis (COA) is provided for every product shipment, containing the test results for all FCC items.

Product Quality Management

LIQUIDOW Food Grade is manufactured in OxyChem facilities in Ludington, Michigan using rigorous quality control procedures to help ensure outstanding product quality and application reliability. GMP principles are applied by OxyChem during all manufacturing and handling steps. Facilities associated with the manufacture of OxyChem Food Grade Calcium Chloride products are SQF-Certified and therefore undergo an annual audit of GMP requirements and food safety management systems conducted by a reputable, independent auditor.

Regulatory Information

This product, when used unmodified, will comply with the U.S. FDA Food Additive Regulations 21 CFR 184.1193. These regulations affirm that the product is Generally Recognized As Safe (GRAS) for use in human foods, subject to GMP requirements and any limitations that are part of the regulations. The regulations should be consulted for complete details.

Nutritional Summary⁽¹⁾ Based on 100-g sample

Ash	33 g	Magnesium	<5 mg
Calcium	12 g	Moisture	67 g
Caloric Value	0 cal	Potassium	412 mg
Carbohydrates	0 g	Protein	0 g
Fat	0 g	Sodium	226 mg
Fiber	0 g		

(1) All "non-zero" values are based on internal laboratory analysis. All "zero" values are estimates based on process knowledge and chemical structure.

For more information like safety data sheets (SDS), package options, calculation tools, etc., or to find an authorized distributor of OxyChem's calcium chloride products, please call or visit our website.

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