

Anhydrous Calcium Chloride 94-97% Mini-Pellets

Versatile Performance for Industry and Beyond



Application

Anhydrous Calcium Chloride 94-97% Mini-Pellets are commonly used to formulate high density, solids-free drilling fluids for the oil and gas industry. The product is also used in concrete acceleration and dust control applications.

Some applications require putting anhydrous calcium chloride into solution. (See tables on reverse.)

Description

Anhydrous Calcium Chloride 94-97% is a purified inorganic salt produced by removing water from a naturally occurring brine solution. Unlike other processes

used to produce calcium chloride, the brine process does not involve reactions with chemicals such as hydrochloric acid or ammonia. The National Organic Standards Board noted this distinction when it classified the brine process as “non-synthetic.”

Anhydrous Calcium Chloride 94-97% meets or exceeds ASTM D98 and AASHTO M144 requirements for calcium chloride purity. ASTM classification for anhydrous calcium chloride is Type S, Grade 3, Class B.

Properties

Characteristic	Typical Value ⁽¹⁾
Calcium chloride assay	>94%
Pellet size distribution	
Larger than 2.4 mm	<20%
From 0.6 to 2.4 mm	>76%
Smaller than 0.6 mm	<4%
Bulk density	52-58 lb/ft ³
ASTM D98 purity requirements ⁽²⁾	
Total alkali chlorides (as NaCl)	<6%
Total magnesium (as MgCl ₂)	<0.5%
Calcium hydroxide	<0.2%

(1) All percentages are by weight.

(2) On an active ingredient basis.

Storage

Solid calcium chloride is both hygroscopic and deliquescent. This means that the product can absorb moisture from the air, even to the point of converting to liquid brine. For this reason, solid calcium chloride should be protected from excessive exposure to moisture to maintain product quality while in storage. Store in a dry area. Opened packages should be tightly resealed after each use.

For full safety and handling details, refer to the current Material Safety Data Sheet for this product, available at www.oxycalciumchloride.com.

Availability

Anhydrous Calcium Chloride 94-97% Mini-Pellets are available in various package sizes, and in bulk truck and bulk rail quantities.



Making Calcium Chloride Solutions From Anhydrous Calcium Chloride 94-97% Mini-Pellets

Calcium chloride releases heat when it is dissolved. Make sure that the dissolving vessel is appropriately constructed for handling hot solutions. Fill the vessel with cool water (less than 80°F/26°C), then slowly add calcium chloride while continuously stirring. Solids kept in motion will dissolve quickly; however, solids that sit motionless on the vessel bottom may form a hard cake that will dissolve more slowly.

Making 100 Gallons of Solution From Anhydrous Calcium Chloride 94-97% Mini-Pellets

% CaCl ₂ Target	Specific Gravity (77°F)	Density @ 77°F (lb/gal)	Weight of Product to Dissolve (lb)	Water Volume (gal)	Expected Temp. Rise (°F)	Solution Freeze Point (°F)
26	1.251	10.40	288	90	90	-31
28	1.275	10.60	316	89	97	-46
30	1.298	10.79	344	88	104	-52
32	1.322	10.99	374	87	111	-17
34	1.345	11.18	404	86	117	10
36	1.369	11.38	436	84	124	30
38	1.392	11.57	468	83	131	48
40	1.416	11.77	501	81	138	61
42	1.439	11.96	534	79	144	69

Making 100 Liters of Solution From Anhydrous Calcium Chloride 94-97% Mini-Pellets

% CaCl ₂ Target	Specific Gravity (26°C)	Density @ 25°C (kg/L)	Weight of Product to Dissolve (kg)	Water Volume (L)	Expected Temp. Rise (°C)	Solution Freeze Point (°C)
26	1.251	1.247	34	90	50	-35
28	1.275	1.271	38	89	54	-43
30	1.298	1.294	41	88	58	-47
32	1.322	1.318	45	87	61	-27
34	1.345	1.341	48	86	65	-12
36	1.369	1.365	52	84	69	-1
38	1.392	1.388	56	83	73	9
40	1.416	1.412	60	81	76	16
42	1.439	1.435	64	79	80	21

For more information or to find an authorized distributor of OxyChem's calcium chloride products, please call or visit our website.

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www.oxycalciumchloride.com

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