



DOW Mini-Pellets

Anhydrous Calcium Chloride 94-97% Mini-Pellets

General Description

Anhydrous Calcium Chloride 94-97% Mini-Pellets meet ASTM D 98 and AASHTO M 144 requirements for calcium chloride purity. The ASTM classification for Anhydrous Calcium Chloride 94-97% Mini-Pellets is "Type S, Grade 3, Class B."

Applications

This product is primarily used in industrial applications, including concrete acceleration, tire weighting and brine refrigeration systems. It may also be used as a calcium source for chemical processing, as an additive to oil well completion fluids and as a dust suppressant on unpaved roads and parking lots.

Some applications require the product to be put into solution. Typical properties of these solutions are found in Tables 1 & 2 on the back of this sheet.

Physical Properties

Appearance	White Pellets
Odor	None
Bulk Density	52-58 lbs. / cu. ft.
Sieve Analysis	0% > #4 sieve 0-20% > #8 sieve 90-100% > #20 sieve 96-100% > #30 sieve

Availability

DOW Mini-Pellets 94-97% calcium chloride is available in various package sizes and in bulk truck and bulk rail.



Typical Chemical Properties

Item	Composition	Unit
Calcium Chloride, min.	94	%
Total Alkali Salts (as NaCl)	3.7	%
Total Magnesium (as MgCl ₂)	0.04	%
Other Impurities	0.45	%
Calcium Hydroxide	0.08	%
Calcium Carbonate	0.02	%

Safety and Handling

For brief contact, no precautions other than clean body-covering clothing should be needed. Selection of specific items such as goggles, gloves, and apron will depend on the operation. Eye/face protection is recommended for dusty operations or when handling solutions.

Appropriate ventilation should be in place to keep atmospheric levels below industrial hygiene guidelines (DOW IHG for calcium chloride is 10 mg/cu. meter).

Rubber boots and gloves are recommended, due to the adverse effect of calcium chloride on leather.

Calcium chloride generates a great deal of heat when it is dissolved. Use cool (less than 80°F/26°C) water when making solutions.

Consult authorities for proper disposal information.

For full safety and handling details, contact The Dow Chemical Company for a current copy of the Material Safety Data Sheet for this product.

For more information contact The Dow Chemical Company Customer Information Center at 1-800-447-4369.

**Table 1—Typical Physical Properties of Solutions of DOW Mini-Pellets 94–97% Calcium Chloride—
English System**

% CaCl ₂	Approximate Specific Gravity @ 77°F	Weight (lbs./gal.) @ 77°F	Lbs. DOW Mini-Pellets 94–97% per Gal. Sol. @ 77°F	Gals. Solution per Ton DOW Mini-Pellets 94–97% @ 77°F	Lbs. DOW Mini-Pellets 94–97% per Gal. H ₂ O @ 77°F	Final Volume Gallons	Freezing Point (°F)
0	1.000	8.31	0	—	0	1.000	+32
10	1.090	9.06	0.96	2097	0.98	1.025	+20
11	1.100	9.14	1.06	1890	1.09	1.028	+18
12	1.110	9.22	1.16	1717	1.20	1.031	+16
13	1.120	9.31	1.27	1570	1.32	1.034	+14
14	1.129	9.38	1.38	1447	1.44	1.039	+12
15	1.139	9.47	1.50	1338	1.56	1.042	+10
16	1.149	9.55	1.61	1243	1.68	1.046	+8
17	1.159	9.63	1.72	1161	1.81	1.051	+5
18	1.169	9.71	1.84	1087	1.94	1.056	+2
19	1.179	9.80	1.96	1020	2.08	1.060	-1
20	1.189	9.88	2.08	962	2.22	1.066	-4
21	1.199	9.96	2.20	908	2.36	1.071	-8
22	1.209	10.05	2.33	859	2.50	1.076	-12
23	1.219	10.13	2.45	815	2.65	1.082	-16
24	1.228	10.20	2.58	776	2.81	1.090	-20
25	1.240	10.30	2.71	738	2.97	1.095	-25
26	1.251	10.40	2.85	703	3.13	1.100	-31
27	1.263	10.50	2.98	670	3.30	1.106	-38
28	1.275	10.60	3.12	640	3.47	1.111	-46
29	1.287	10.69	3.26	613	3.65	1.119	-53
29.6	1.294	10.75	3.35	597	3.76	1.123	-60
30	1.298	10.79	3.41	587	3.84	1.126	-52
31	1.310	10.89	3.55	563	4.03	1.133	-34
32	1.322	10.99	3.70	540	4.22	1.140	-17
33	1.334	11.09	3.85	519	4.42	1.148	-4
34	1.345	11.18	4.00	500	4.63	1.157	+10
35	1.357	11.28	4.16	481	4.85	1.167	+20
36	1.369	11.38	4.31	464	5.07	1.176	+30
37	1.381	11.48	4.47	447	5.30	1.186	+39
38	1.392	11.57	4.63	432	5.54	1.197	+48
39	1.404	11.67	4.79	417	5.79	1.208	+55
40	1.416	11.77	4.96	404	6.04	1.219	+61
41	1.428	11.87	5.12	390	6.31	1.232	+65
42	1.439	11.96	5.29	378	6.59	1.275	+69
45	1.474	12.25	5.80	345	7.48	1.289	+78

**Table 2—Typical Physical Properties of Solutions of DOW Mini-Pellets 94–97% Calcium Chloride—
Metric System**

% CaCl ₂	Approximate Specific Gravity @ 25°C	Weight (kg/liter) @ 25°C	Kg DOW Mini-Pellets 94–97% per Liter Sol. @ 25°C	Liters Solution per Metric Ton DOW Mini-Pellets 94–97% @ 25°C	Kg DOW Mini-Pellets 94–97% per Liter H ₂ O @ 25°C	Final Volume Liters	Freezing Point (°C)
0	1.000	0.997	0.000	—	—	1.000	0
10	1.090	1.087	0.114	8742	0.117	1.025	-7
11	1.100	1.097	0.127	7875	0.131	1.028	-8
12	1.110	1.107	0.140	7154	0.144	1.031	-9
13	1.120	1.117	0.153	6544	0.158	1.034	-10
14	1.129	1.126	0.166	6028	0.172	1.038	-11
15	1.139	1.136	0.179	5577	0.187	1.042	-12
16	1.149	1.146	0.193	5183	0.202	1.046	-13
17	1.159	1.156	0.207	4836	0.217	1.050	-15
18	1.169	1.165	0.221	4528	0.233	1.056	-17
19	1.179	1.175	0.235	4254	0.249	1.060	-18
20	1.189	1.185	0.250	4007	0.266	1.066	-20
21	1.199	1.195	0.264	3784	0.283	1.071	-22
22	1.209	1.205	0.279	3582	0.300	1.076	-24
23	1.219	1.215	0.294	3399	0.318	1.082	-27
24	1.228	1.224	0.309	3233	0.337	1.090	-29
25	1.24	1.236	0.325	3074	0.356	1.095	-32
26	1.251	1.247	0.341	2930	0.376	1.101	-35
27	1.263	1.259	0.358	2794	0.396	1.106	-39
28	1.275	1.271	0.375	2669	0.417	1.113	-43
29	1.287	1.283	0.392	2553	0.438	1.118	-47
29.6	1.294	1.290	0.402	2488	0.451	1.122	-51
30	1.298	1.294	0.409	2447	0.460	1.126	-47
31	1.31	1.306	0.426	2346	0.483	1.133	-37
32	1.322	1.318	0.444	2252	0.506	1.140	-27
33	1.334	1.330	0.462	2165	0.531	1.149	-20
34	1.345	1.341	0.480	2084	0.556	1.158	-12
35	1.357	1.353	0.498	2006	0.582	1.167	-7
36	1.369	1.365	0.517	1933	0.608	1.176	-1
37	1.381	1.377	0.536	1865	0.636	1.186	4
38	1.392	1.388	0.555	1801	0.665	1.197	9
39	1.404	1.400	0.575	1740	0.694	1.208	13
40	1.416	1.412	0.594	1682	0.725	1.220	16
41	1.428	1.424	0.614	1627	0.757	1.232	18
42	1.439	1.435	0.634	1577	0.790	1.245	21
45	1.474	1.470	0.696	1437	0.897	1.288	26

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