

## Properties of Magnesium Chloride Solutions

Weight (%)	Density (kg/m <sup>3</sup> )	Cl <sup>-</sup> (mg/L)	Mg <sup>+2</sup> (mg/L)	MgCl <sub>2</sub> (kg/m <sup>3</sup> )	Water (m <sup>3</sup> )	Crystallization Point (°C)	Water Activity
1	1006	7,492	2,568	10.1	0.9962	-0.5	0.995
2	1014	1,506	5,178	20.5	0.9941	-1.1	0.990
3	1023	22,842	7,830	31.3	0.9919	-1.7	0.984
4	1031	30,703	10,524	42.4	0.9897	-2.3	0.978
5	1039	38,696	13,264	53.9	0.9874	-3.0	0.972
6	1048	46,814	16,047	65.7	0.9850	-4.3	0.964
7	1056	55,060	18,873	80.0	0.9825	-5.4	0.957
8	1065	63,444	21,747	90.5	0.9799	-5.8	0.948
9	1074	71,957	24,665	10.5	0.9772	-6.8	0.939
10	1083	80,608	27,631	116.9	0.9744	-7.7	0.929
12	1101	98,329	33,705	145.0	0.9685	-9.7	0.906
14	1119	116,635	39,980	174.8	0.9623	-14.5	0.879
16	1137	135,477	46,439	206.4	0.9552	-18.8	0.848
18	1155	154,838	53,075	239.7	0.9474	-25.0	0.812
20	1174	174,856	59,937	275.1	0.9394	-33.2	0.772
22	1194	195,553	67,031	312.8	0.9312	-28.1	0.727
24	1214	216,940	74,362	352.9	0.9226	-24.3	0.677
26	1235	239,006	81,926	395.4	0.9136	-20.5	0.624
28	1256	261,748	89,722	440.3	0.9039	-17.1	0.567
30	1276	285,091	97,723	487.6	0.8934	-16.4	0.507