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Note: These tables are intended for inspection purposes only and are not suitable in determining corrections for trade transactions of bulk commodities.

Isopropyl alcohol (anhydrous)

Volume correction factors to 15 °C for isopropyl alcohol (anhydrous)								
Temperature °C	**Density (kg/m^3)**	**Volume correction factor**	**Temperature °C**	**Density (kg/m^3)**	**Volume correction factor**	**Temperature °C**	**Density (kg/m^3)**	**Volume correction factor**
-30	823.2	1.0432	-6.5	806.1	1.0215	17	787.5	0.9979
-29.5	822.9	1.0427	-6	805.8	1.0210	17.5	787.1	0.9974
-29	822.5	1.0423	-5.5	805.4	1.0206	18	786.7	0.9969
-28.5	822.2	1.0418	-5	805.0	1.0201	18.5	786.3	0.9963
-28	821.8	1.0414	-4.5	804.6	1.0196	19	785.9	0.9958
-27.5	821.5	1.0409	-4	804.2	1.0191	19.5	785.4	0.9953
-27	821.1	1.0405	-3.5	803.9	1.0186	20	785.0	0.9948
-26.5	820.8	1.0401	-3	803.5	1.0181	20.5	784.6	0.9942
-26	820.4	1.0396	-2.5	803.1	1.0176	21	784.2	0.9937
-25.5	820.1	1.0392	-2	802.7	1.0172	21.5	783.8	0.9932
-25	819.7	1.0387	-1.5	802.3	1.0167	22	783.4	0.9926
-24.5	819.4	1.0383	-1	801.9	1.0162	22.5	782.9	0.9921
-24	819.0	1.0378	-0.5	801.5	1.0157	23	782.5	0.9916
-23.5	818.7	1.0374	0	801.1	1.1052	23.5	782.1	0.9910
-23	818.3	1.0369	0.5	800.8	1.0147	24	781.7	0.9905
-22.5	817.9	1.0365	1	800.4	1.1042	24.5	781.2	0.9900
-22	817.6	1.0360	1.5	800.0	1.0137	25	780.8	0.9894
-21.5	817.2	1.0356	2	799.6	1.0132	25.5	780.4	0.9889
-21	816.9	1.0351	2.5	799.2	1.1027	26	780.0	0.9884

Volume correction factors to 15 °C for isopropyl alcohol (anhydrous)								
Temperature °C	**Density (kg/m^3)**	**Volume correction factor**	**Temperature °C**	**Density (kg/m^3)**	**Volume correction factor**	**Temperature °C**	**Density (kg/m^3)**	**Volume correction factor**
-20.5	816.5	1.0346	3	798.8	1.0122	26.5	779.5	0.9878
-20	816.1	1.0342	3.5	798.4	1.0117	27	779.1	0.9873
-19.5	815.8	1.0337	4	798.0	1.0112	27.5	778.7	0.9867
-19	815.4	1.0333	4.5	797.6	1.0107	28	778.3	0.9862
-18.5	815.1	1.0328	5	797.2	1.0102	28.5	777.8	0.9856
-18	814.7	1.0324	5.5	796.8	1.0097	29	777.4	0.9851
-17.5	814.3	1.0319	6	796.4	1.0092	29.5	777.0	0.9846
-17	814.0	1.0314	6.5	796.0	1.0087	30	776.5	0.9840
-16.5	813.6	1.0310	7	795.6	1.0082	30.5	776.1	0.9835
-16	813.2	1.0305	7.5	795.2	1.0077	31	775.7	0.9829
-15.5	812.0	1.0300	8	794.8	1.0072	31.5	775.2	0.9824
-15	812.5	1.0296	8.5	794.4	1.0067	32	774.8	0.9818
-14.5	812.1	1.0291	9	794.0	1.0062	32.5	774.4	0.9813
-14	811.8	1.0286	9.5	793.6	1.0057	33	773.9	0.9807
-13.5	811.4	1.0282	10	793.2	1.0052	33.5	773.5	0.9802
-13	811.0	1.0277	10.5	792.8	1.0046	34	773.1	0.9796
-12.5	810.7	1.0272	11	792.4	1.0041	34.5	772.6	0.9791
-12	810.3	1.0268	11.5	792	1.0036	35	772.2	0.9785
-11.5	809.9	1.0263	12	791.6	1.0031	35.5	771.8	0.9779
-11	809.5	1.0258	12.5	791.2	1.0026	36	771.3	0.9774
-10.5	809.2	1.0253	13	790.8	1.0021	36.5	770.9	0.9768
-10	808.8	1.0249	13.5	790.4	1.0016	37	770.4	0.9763
-9.5	808.4	1.0244	14	790	1.0010	37.5	770.0	0.9757

Volume correction factors to 15 °C for isopropyl alcohol (anhydrous)								
Temperature °C	**Density (kg/m^3)**	**Volume correction factor**	**Temperature °C**	**Density (kg/m^3)**	**Volume correction factor**	**Temperature °C**	**Density (kg/m^3)**	**Volume correction factor**
-9	808.0	1.0239	14.5	789.6	1.0005	38	769.6	0.9752
-8.5	807.7	1.0234	15	789.2	1.0000	38.5	769.1	0.9746
-8	807.3	1.0230	15.5	788.8	0.9995	39	768.7	0.9740
-7.5	806.9	1.0225	16	788.3	0.9990	39.5	768.2	0.9735
-7	806.5	1.0220	16.5	787.9	0.9984	40	767.8	0.9729

Cubical coefficient of expansion at 15 °C = 0.001 016 per °C

To obtain the net volume of liquid at 15 °C, multiply the uncompensated meter reading by the volume correction factor (VCF) which corresponds to the average measured temperature of the liquid during the delivery.

Densities are mass (in vacuum) and are based on specification grade isopropyl alcohol whose mass density is 785.027 kg/m^3 at 20 °C. Volume correction factor data was derived using the equation in Table 4 of ASTM E 201-70.

Table last updated: September 2016