Volume Correction Factors to 15 ºC for Anhydrous Ammonia (NH_3)								
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	677.5	1.0968	-6.5	647.4	1.0481	17	614.8	0.9953
-29.5	676.9	1.0958	-6	646.7	1.0469	17.5	614.1	0.9942
-29	676.2	1.0948	-5.5	646.1	1.0459	18	613.4	0.9930
-28.5	675.6	1.0938	-5	645.4	1.0448	18.5	612.7	0.9918
-28	675	1.0927	-4.5	644.7	1.0437	19	611.9	0.9906
-27.5	674.4	1.0917	-4	644	1.0426	19.5	611.2	0.9894
-27	673.7	1.0907	-3.5	643.4	1.0415	20	610.4	0.9882
-26.5	673.1	1.0897	-3	642.7	1.0404	20.5	609.7	0.9870
-26	672.5	1.0887	-2.5	642	1.0394	21	609	0.9858
-25.5	671.9	1.0877	-2	641.3	1.0383	21.5	608.3	0.9846
-25	671.2	1.0867	-1.5	640.7	1.0372	22	607.5	0.9834
-24.5	670.6	1.0857	-1	640	1.0361	22.5	606.8	0.9823
-24	670	1.0846	-0.5	639.3	1.0350	23	606	0.9810
-23.5	669.4	1.0836	0	638.6	1.0339	23.5	605.3	0.9798
-23	668.7	1.0825	0.5	638	1.0328	24	604.5	0.9786
-22.5	668.1	1.0815	1	637.3	1.0317	24.5	603.8	0.9774

Volume Correction Factors to 15 ºC for Anhydrous Ammonia (NH_3)								
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
-22	667.4	1.0805	1.5	636.6	1.0306	25	603	0.9762
-21.5	666.8	1.0795	2	635.9	1.0295	25.5	602.3	0.9750
-21	666.2	1.0784	2.5	635.2	1.0284	26	601.5	0.9737
-20.5	665.6	1.0774	3	634.5	1.0273	26.5	600.8	0.9725
-20	664.9	1.0764	3.5	633.9	1.0262	27	600	0.9713
-19.5	664.3	1.0754	4	633.2	1.0250	27.5	599.4	0.9701
-19	663.6	1.0743	4.5	632.5	1.0239	28	598.4	0.9688
-18.5	663.0	1.0733	5	631.8	1.0228	28.5	597.7	0.9676
-18	662.3	1.0722	5.5	631.1	1.0217	29	596.9	0.9663
-17.5	661.7	1.0712	6	630.4	1.0206	29.5	596.4	0.9651
-17	661	1.0702	6.5	629.7	1.0190	30	595.4	0.9638
-16.5	660.4	1.0691	7	629	1.0183	30.5	594.6	0.9627
-16	659.8	1.0681	7.5	628.3	1.0172	31	593.8	0.9614
-15.5	659.2	1.0671	8	627.6	1.0161	31.5	593.1	0.9601
-15	658.5	1.0660	8.5	626.9	1.0150	32	592.3	0.9588
-14.5	657.9	1.0650	9	626.2	1.0138	32.5	591.5	0.9576

Volume Correction Factors to 15 ºC for Anhydrous Ammonia (NH_3)								
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
-14	657.2	1.0639	9.5	625.5	1.0127	33	590.7	0.9563
-13.5	656.6	1.0629	10	624.8	1.0115	33.5	589.9	0.9551
-13	655.9	1.0618	10.5	624.1	1.0104	34	589.1	0.9538
-12.5	655.3	1.0608	11	623.4	1.0092	34.5	588.4	0.9525
-12	654.6	1.0597	11.5	622.7	1.0081	35	587.6	0.9512
-11.5	654	1.0587	12	622	1.0069	35.5	586.8	0.9501
-11	653.3	1.0576	12.5	621.3	1.0058	36	586	0.9487
-10.5	652.7	1.0566	13	620.6	1.0046	36.5	585.2	0.9474
-10	652	1.0555	13.5	620	1.0035	37	584.4	0.9461
-9.5	651.3	1.0544	14	619.1	1.0023	37.5	583.6	0.9448
-9	650.6	1.0533	14.5	618.4	1.0012	38	582.8	0.9435
-8.5	650	1.0523	15	617.7	1.0000	38.5	582.0	0.9422
-8	649.3	1.0512	15.5	617.0	0.9989	39	581.2	0.9409
-7.5	648.7	1.0502	16	616.3	0.9977	39.5	580.4	0.9396
-7	648	1.0491	16.5	615.6	0.9965	40	579.6	0.9383

Cubical cœfficient of expansion is out of range for API 54C

To obtain the net volume of liquid at 15 ºC, 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) are taken from: Thermodynamic Properties of Ammonia, by L. Haar and S.J. Gallagher, Journal of Physics Chemistry Ref. Data, Volume 7, No. 3, 1978.

Revision 1 (July 2015)

Corrected VCF values at -6.5, 22.5 and 36.5.