



# Ammonia

**Description**

Formula: NH<sub>3</sub>

**Gas Data**

Molecular Weight: 17.03  
 Density: 0.709 kg/m<sup>3</sup> @ 21.1°C, 101.325 kPa  
 0.0442 lb/ft<sup>3</sup> @ 70°F, 14.696 psia  
 Specific Volume: 1.41 m<sup>3</sup>/kg @ 21.1°C, 101.325 kPa  
 22.6 ft<sup>3</sup>/lb @ 70°F, 14.696 psia

**Safety Information**

LFL in Air: 16%  
 UFL in Air: 25%  
 Permissible Exposure Limit (TLV): 25 ppm

**Shipping Information**

CAS Registry Number: 7664-41-7  
 UN Number: UN 1005  
 ECCN Number: 1C980  
 DOT Proper Shipping Name: Ammonia, Anhydrous  
 DOT Classification: 2.2 (Nonflammable Gas)  
 DOT Label: NON-FLAMMABLE GAS  
 TC Shipping Name: Ammonia, Anhydrous, Liquefied  
 TC Classification: 2.4, 9.2  
 TC Label: CORROSIVE GAS

**Cylinder Specifications**

Cylinder Size	Valve Outlet CGA No.	Pressure psig @ 70°F	Pressure kPa @ 21.1°C	Approximate Ship Weight	
				lb	kg
1K	705	114	786	308	140
1M	705	114	786	224	102
1A	705	114	786	172	78
1R	660	114	786	93	42
2	705	114	786	89	40
2R	660	114	786	57	26
3	705	114	786	44	20
4	705	114	786	24	11
LB	180	114	786	12	5
QF	660/720	114	786	182	83
QH	660/720	114	786	93	42
UH	660/720	114	786	31	14

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content US	Content Metric	Equipment Recommendations	Model No.	Page No.			
<b>Ammonia, Research Purity 99.9992%</b>	G2100823	QF	50 lb	22.68 kg	Single Stage Reg. Cross Purge Personal Monitor Leak Detector Detector Tube Cyl. Valve Wrench	Series 3610A-660 4774-660 IQ250 8081A 8014-105SD TW-2	316 422 398 404 391 430			
<i>Guaranteed Specifications</i>	G2100832	QH	34 lb	15.45 kg						
Carbon Dioxide < 1 ppm	G2100860	UH	5 lb	2.27 kg						
Carbon Monoxide < 0.1 ppm										
Methane < 0.1 ppm										
Nitrogen < 2 ppm										
Oxygen < 1 ppm										
Water < 2 ppm										
<i>A Certificate of Analysis is available on request at a nominal charge.</i>										
<b>Ammonia, Matheson Purity 99.999%</b>	G1800823	QF	50 lb	22.68 kg				Single Stage Reg. Tee Purge Personal Monitor Leak Detector Detector Tube Cyl. Valve Wrench	Series 3610A-660 4754-660 IQ250 8081A 8014-105SD TW-2	316 423 398 404 391 430
<i>Guaranteed Specifications</i>	G1800832	QH	34 lb	15.45 kg						
Carbon Monoxide < 2 ppm	G1800860	UH	5 lb	2.27 kg						
Methane < 3 ppm										
Nitrogen < 6 ppm										
Oxygen < 4 ppm										
Water < 2 ppm										
<i>A Certificate of Analysis is available on request at a nominal charge.</i>										
<b>Ammonia, SFC Purity 99.995%</b>	G2400318	1R	34 lb	15.43 kg	Single Stage Reg. Tee Purge Personal Monitor Leak Detector Detector Tube Cyl. Valve Wrench	Series 3610A-660 4754-660 IQ250 8081A 8014-105SD TW-2	316 423 398 404 391 430			
<i>Guaranteed Specifications</i>	G2400347	2R	15 lb	6.80 kg						
Carbon Dioxide < 10 ppm										
Oxygen < 10 ppm										
THC < 10 ppm										
<i>A lot analysis will be provided with each order. Please inquire for individual cylinder analysis. Supplied with full length eductor tube. Pressurized to 1500 psig with helium on request.</i>										
<b>Ammonia, Anhydrous 99.99%</b>	G1501211	1K	140 lb	63.64 kg				Single Stage Reg. LB Regulator Tee Purge Personal Monitor Leak Detector Detector Tube Cyl. Valve Wrench	Series 3610A-705 Series 3330-180 4754-705 IQ250 8081A 8014-105SD TW-2*	316 302 423 398 404 391 430
	G1501213	1M	90 lb	40.82 kg						
	G1501201	1A	40 lb	18.14 kg						
	G1501240	2	15 lb	6.80 kg						
	G1501250	3	5 lb	2.27 kg						
	G1501265	4	2 lb	0.91 kg						
	G1501275	LB	0.375 lb	170 gm						
<i>Liquid phase, weight/weight% A Certificate of Conformance will be provided on request. By request, all except LB can be furnished with full length eductor tubes for liquid withdrawal. *Except LB</i>										