



Ammonia. NH₃

Product information Ammonia is a nitrogen precursor for silicon nitride and metal nitride thin films.

Characteristics Colorless flammable liquefied gas with a penetrating and suffocating odor.

Physical data	Molecular weight	[g/mol]	17.031		
	Boiling point	at 1.013 bar [°C]	-33.43	at 14.5 psi [°F]	-241.17
Density	at 1.013 bar, 15 °C [kg/m ³]	0.728	at 1 atm., 70 °F [lb/ft ³]	0.044	
Vapor pressure	at 0 °C [bar]	4.29	at 32 °F [psi]	62.21	
	at 20 °C [bar]	8.55	at 70 °F [psi]	128.51	
Flammability range in air (% volume)		15.0 ~ 30.0			

Product specification	Purity grade	Typical purity	Typical impurities [ppm]					
			H ₂ O	Ar+O ₂	H ₂	N ₂	CO	CO ₂
5.0N	≥99.999 %	≤2	≤1	-	≤5	≤0.5	≤0.5	≤1
6.5N	≥99.99995 %	0.1	0.1	0.1	0.1	0.01	0.01	0.02

Shipping information	UN number	CAS number	EC number	DOT label	Hazard labels required
	1005	7664-41-7	231-635-3	Poison Gas, Corrosive	ADR Class 2, 2TC DOT Class 2.3,8 (I) DOT Class 2.2 (D)

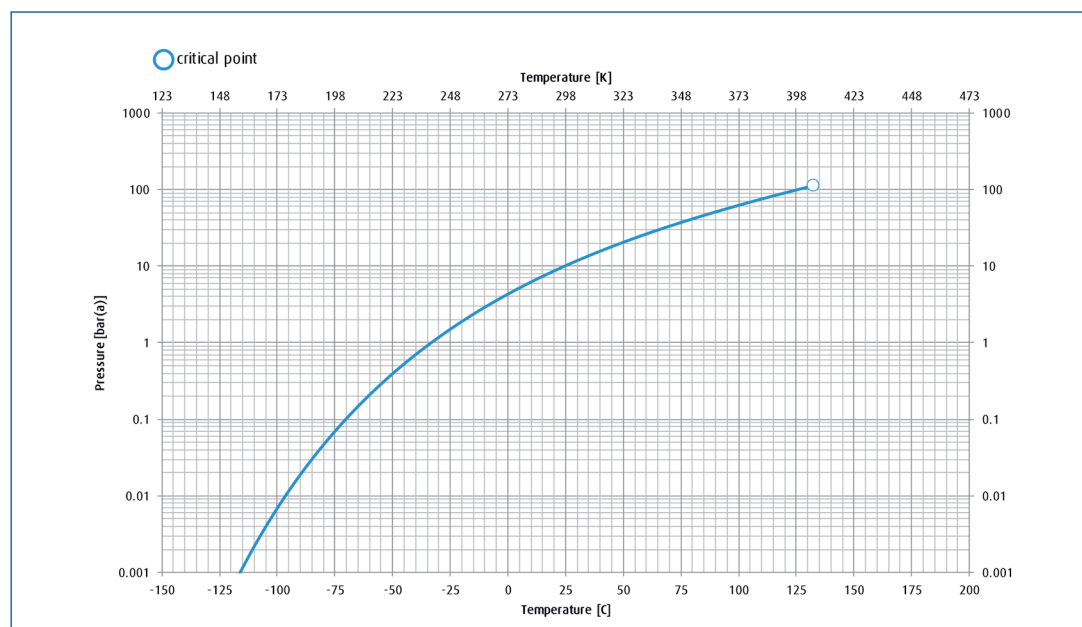
Packaging information	Package options	Cylinder designation	Cylinder internal volume	Cylinder material	Cylinder diameter	Cylinder height to valve outlet	Cylinder tare weight	Fill contents	Pressure (psig) @ 70°	Valve outlet ⁽²⁾	Valve material
	Drum	918	803L	Steel	30 in	18 in	1450 lb	885 lb	<400	CGA 720	SS
	Ton container	920	446L	Steel	24 in	16.1 in	1100 lb	500 lb	115	CGA 660/ CGA 720	SS
	Cylinder	302	46L	Aluminum	9.8 in	54 in	98 lb	50 lb	115	CGA 660/ CGA 720	SS
	Cylinder	200	44L	Steel	9 in	52 in	133 lb	50 lb	115	CGA 660/ CGA 720	SS
	Cylinder	152	29.5L	Aluminum	8 in	49 in	49.5 lb	30 lb	115	CGA 660/ CGA 720	SS
	Cylinder	32	6L	Aluminum	6.5 in	17 in	15 lb	5 lb	115	CGA 660/ CGA 720	SS

Packaging information

	Package options	Cylinder designation	Cylinder internal volume	Cylinder material	Cylinder diameter	Cylinder height to valve outlet	Cylinder tare weight	Fill contents	Pressure (psig) @ 70°	Valve outlet ⁽²⁾	Valve material
EU	Drum	950L	950L	Steel	800 mm	460 mm	1450 kg	500 kg	<400	CGA 720	SS
	Drum	825L	825L	Steel	1000 mm	160 mm	1960 kg	430 kg	115	CGA 720	SS
	Cylinder	50L	50L	Steel	237 mm	1500 mm	70 kg	25 kg	115	DIN6	SS
	Cylinder	47L	47L	Stainless Steel	230 mm	1320 mm	60 kg	24.5 kg	115	CGA 720	SS
	Cylinder	10L	10L	Steel	200 mm	110 mm	24 kg	5 kg	115	DIN6	SS
	Cylinder	2L	2L	Steel	165 mm	430 mm	7 kg	1 kg	115	DIN6	SS
China	Drum	950L	950L	Steel	800 mm	460 mm	1450 kg	500 kg	115	CGA 720	SS
	Ton container	470L	470L	Steel	610 mm	500 mm	500 kg	250 kg	115	CGA 720	SS
	Cylinder	47L	47L	Steel	237 mm	1450 mm	65 kg	20 kg	115	CGA 660/720	SS
Other	ISO T50 Portable Tank	T50	22000L	Stainless Steel	2500 mm	1800 mm	11500 kg	11000 kg	115	1" MVCR	SS

Please inquire about other package size availability

Vapor pressure curve



Additional information

The information, recommendations, and data contained in this publication are intended to give basic guidance for safe handling and use of gases. For more information, please refer to Safety Data Sheets. You can locate these through the [Linde Safety Data Sheet Search](#). It is essential for the safe use of gases that personnel are properly trained and are fully aware of the possible hazards. Further information and advice on any matter relating to the safe handling or use of these products may be obtained from the nearest Linde office.

Please visit www.linde.com/electronics for Linde Electronics sales offices information.