



Chlorine. Cl₂

Product information High purity chlorine is used in the silicon anisotropic plasma etch, Atomic Layer Etch (ALE) and pulsed plasma etch, Also etching metal nitrides in LED (e.g. GaN), metal oxides in FPD, and III-V fiber optics components.

Characteristics Yellowish-green liquefied gas with irritating odor and corrosive. Heavy oxidizing agent. Gas density is heavier than air.

Physical data	Molecular weight	[g/mol]	70.905
	Boiling point	at 1.013 bar [° C]	-34.03 at 14.5 psi [° F]
	Density	at 1.013 bar, 15° C [kg/m ³]	3.042 at 1 atm., 70° F [lb/ft ³]
	Vapor pressure	at 0° C [bar]	3.7 at 32° F [psi]
		at 20° C [bar]	6.8 at 70° F [psi]
	Flammability range in air (% volume)	Non-combustible	

Product specification

Purity grade	Typical purity	Typical impurities [ppm]						
		N ₂	O ₂ +Ar	CO	CO ₂	CH ₄	H ₂ O	H ₂
5.0N	≥99.999 %	≤3	≤1	≤0.5	≤2	≤0.5	≤2	≤1

Contact our team for higher grade or different specification products.

Shipping information

UN number	CAS number	EC number	DOT label	Hazard labels required
1017	7782-50-5	231-959-5	Poison gas	ADR Class 2, 2 TOC DOT Class 2.3

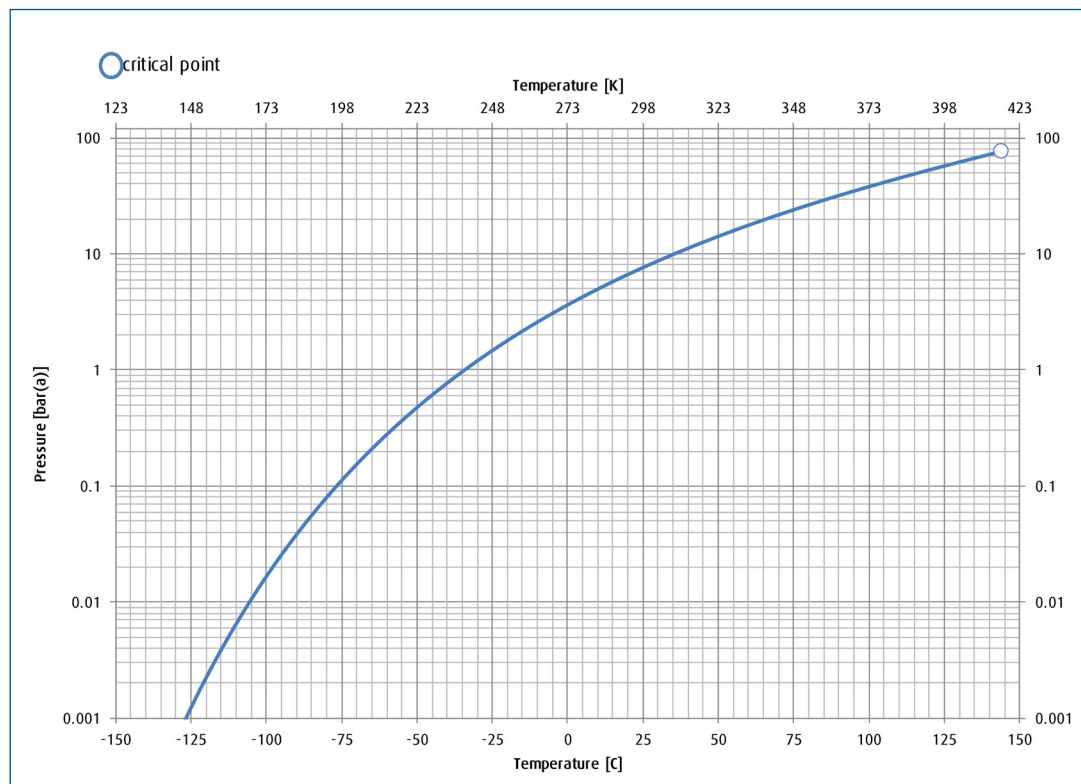
Packaging information

Package options	Cylinder designation	Cylinder internal volume	Cylinder material	Cylinder diameter	Cylinder height to valve outlet	Cylinder tare weight	Fill contents	Pressure (psig) @ 70° F	Valve outlet	Valve material
US Cylinder	204	44L	Steel	9 in	52 in	130 lb	52 kg	85	CGA 728	SS
Cylinder	84	16L	Steel	7 in	33 in	63 lb	20 kg	85	CGA 728	SS
Cylinder	209	44L	Nickel lined steel	9 in	52 in	130 lb	52 kg	85	CGA 728	SS
Cylinder	89	16L	Nickel lined steel	7 in	33 in	63 lb	20 kg	85	CGA 728	SS
Cylinder	39	8L	Nickel lined steel	7 in	20 in	40 lb	7 kg	85	CGA 728	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° F	Valve outlet	Valve material
EU	Cylinder	50L	50L	Steel	229 mm	1640 mm	67 kg	60 kg	85	DIN 6/CGA728	SS
	Cylinder	10L	10L	Steel	140 mm	970 mm	16 kg	10 kg	85	DIN 6/CGA728	SS
	Cylinder	2L	2L	Steel	100 mm	490 mm	5.3 kg	2 kg	85	DIN 6/CGA728	SS
	Cylinder	55L	55L	Stainless steel	219 mm	1660 mm	50 kg	50 kg	85	DIN 6/CGA728	SS
	Cylinder	10L	10 L	Stainless steel	219 mm	560 mm	21 kg	10 kg	85	DIN 6/CGA728	SS
China	Cylinder	47L	47L	Steel	237 mm	1500 mm	65 kg	50 kg	85	CGA 634/660	SS

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.