

# Hydrogen Chloride

## Description

Formula: HCl


## Gas Data

Molecular Weight: 36.46  
 Density: 1.50 kg/m<sup>3</sup> @ 25°C, 101.325 kPa  
 0.094 lb/ft<sup>3</sup> @ 70°F, 14.696 psia  
 Specific Volume: 0.662 m<sup>3</sup>/kg @ 21.1°C, 101.325 kPa  
 10.6 ft<sup>3</sup>/lb @ 70°F, 14.696 psia

## Safety Information

Permissible Exposure Limit (TLV): 5 ppm

## Shipping Information

CAS Registry Number: 7647-01-0  
 UN Number: UN 1050  
 ECCN Number: EAR99  
 DOT Proper Shipping Name: Hydrogen Chloride, Anhydrous  
 DOT Classification: 2.3, Hazard Zone C (gas poisonous by inhalation)  
 DOT Label: INHALATION HAZARD  CORROSIVE GAS  
 TC Shipping Name: Hydrogen Chloride, Anhydrous  
 TC Classification: 2.3, 8  
 TC Label: POISON GAS, CORROSIVE GAS

## Cylinder Specifications

Cylinder Size	Valve Outlet CGA No.	Pressure psig @ 70°F	Pressure kPa @ 21.1°C	Approximate Ship Weight	
				lb	kg
1T	330	613	4,226	1910	866
1A	330	613	4,226	192	87
2	330	613	4,226	94	43
3	330	613	4,226	47	22
4	330	613	4,226	24	11
LB	180	613	4,226	6	3
QI	330/634	613	4,226	1910	866
QK	330/634	613	4,226	210	95
QF	330/634	613	4,226	187	85
GF	330/634	613	4,226	94	43
UF	330/634	613	4,226	47	21

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.	Page No.
			US	Metric			
<b>Hydrogen Chloride, Research Purity 99.999%</b> <i>Guaranteed Specifications</i>	G2148326	QK	60 lb	27.22 kg	Single Stage Reg. Cross Purge Personal Monitor Leak Detector Leak Detector Detector Tube Cyl. Valve Wrench	Series 3210A-330 3330-180 4775-330 IQ250 8057 8081A 8014-1735B TW-2	301 302 422 398 402 404 382 430
	G2148323	QF	55 lb	24.95 kg			
	G2148343	GF	20 lb	9.07 kg			
	G2148355	UF	8 lb	3.63 kg			
	Carbon Dioxide < 4 ppm						
	Carbon Monoxide < 1 ppm						
	Iron < 0.5 ppm						
	Methane < 1 ppm						
Nitrogen < 2 ppm							
Oxygen < 1 ppm							
Water < 1 ppm							
<i>A Certificate of Analysis is available on request at a nominal charge.</i>							
<b>Hydrogen Chloride, Matheson Purity 99.995%</b> <i>Guaranteed Specifications</i>	G1851633	QI	600 lb	272.16 kg	Single Stage Reg. L B Regulator Cross Purge Personal Monitor Leak Detector Leak Detector Detector Tube Cyl. Valve Wrench	Series 3210A-330 3330-180 4775-330 IQ250 8057 8081A 8014-1735B TW-2*	301 302 422 398 402 404 392 430
	G1851623	QF	55 lb	24.95 kg			
	G1851643	GF	20 lb	9.07 kg			
	G1851655	UF	8 lb	3.63 kg			
	G1851675	LB	0.5 lb	227 gm			
	Carbon Dioxide < 10 ppm						
	Methane < 2 ppm						
	Nitrogen < 10 ppm						
Oxygen < 4 ppm							
Water < 10 ppm							
<i>A Certificate of Analysis is available on request at a nominal charge.</i> <i>*Except LB</i>							
<b>Hydrogen Chloride, UHP 99.5%</b> <i>Guaranteed Specifications</i>	G2670736	1L	65 lb	29.50 kg	Single Stage Reg. L B Regulator Cross Purge Personal Monitor Leak Detector Leak Detector Detector Tube Cyl. Valve Wrench	Series 3210A-330 3330-180 4775-330 IQ250 8057 8081A 8014-1735B TW-2*	301 302 422 398 402 404 392 430
	G2670496	1A	60 lb	27.22 kg			
	Oxygen < 100 ppm						
THC < 60 ppm							
<i>A Certificate of Analysis is available on request at a nominal charge.</i> <i>*Except LB</i>							
<b>Hydrogen Chloride, Technical Purity 99%</b>	G1531120	1T	600 lb	272.16 kg	Single Stage Reg. L B Regulator Cross Purge Personal Monitor Leak Detector Leak Detector Detector Tube Cyl. Valve Wrench	Series 3210A-330 Series 3330-180 4775-330 IQ250 8057 8081A 8014-1735B TW-2*	301 302 422 398 402 404 392 430
	G1531101	1A	60 lb	27.22 kg			
	G1531140	2	20 lb	9.07 kg			
	G1531150	3	8 lb	3.63 kg			
	G1531165	4	2 lb	0.91 kg			
	G1531175	LB	0.5 lb	227 gm			

Liquid phase, weight/weight%

A Certificate of Conformance will be provided on request.

Recommended shelf life — 6 months.

\*Except LB