

Safety Data Sheet

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking****1.1 Product identifier**

Product Name	• Hydrogen Chloride
Synonyms	• Anhydrous hydrochloric acid; HCl; Hydrochloric acid
CAS Number	• 7647-01-0
Product Code	• 20095
EC Number	• 231-595-7
Molecular Formula	• :H 1:Cl 1:

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s)	• Semiconductor Uses
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1.3 Details of the supplier of the safety data sheet

Manufacturer	• Air Liquide 2700 Post Oak Blvd. Houston, TX 77056 United States www.us.airliquide.com sds@airliquide.com
Telephone (Technical)	• 713-896-2896
Telephone (Technical)	• 800-819-1704

1.4 Emergency telephone number

Manufacturer	• 800-424-9300 - CHEMTREC
Manufacturer	• +1 703-527-3887 - Outside United States

Section 2: Hazards Identification**EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP	• Liquefied Gas - H280 Skin Corrosion 1A - H314 Acute Toxicity Inhalation 3 - H331
DSD/DPD	• Toxic (T) Corrosive (C) R23, R35

2.2 Label Elements

CLP

DANGER

- Hazard statements**
- H280 - Contains gas under pressure; may explode if heated
 - H314 - Causes severe skin burns and eye damage
 - H331 - Toxic if inhaled

Precautionary statements

- Prevention**
- P260 - Do not breathe fume/gas.
 - P264 - Wash thoroughly after handling.
 - P270 - Do not eat, drink or smoke when using this product.
 - P271 - Use only outdoors or in a well-ventilated area.
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P310 - Immediately call a POISON CENTER or doctor/physician.
 - P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 - P363 - Wash contaminated clothing before reuse.
 - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P311 - Call a POISON CENTER or doctor/physician.
 - P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 - P321 - Specific treatment, see supplemental first aid information.
- Storage/Disposal**
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
 - P405 - Store locked up.
 - P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD

- Risk phrases**
- R23 - Toxic by inhalation.
 - R35 - Causes severe burns.

- Safety phrases**
- S36 - Wear suitable protective clothing.
 - S37 - Wear suitable gloves.
 - S39 - Wear eye/face protection.
 - S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazards

- CLP**
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- DSD/DPD**
- This product is considered dangerous according to the European Directive 67/548/EEC.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012**
- Liquefied Gas - H280
 - Skin Corrosion 1A - H314
 - Serious Eye Damage 1 - H318
 - Acute Toxicity Inhalation 3 - H331

2.2 Label elements

OSHA HCS 2012

DANGER

- Hazard statements**
- Contains gas under pressure; may explode if heated - H280
 - Causes severe skin burns and eye damage - H314
 - Causes serious eye damage - H318
 - Toxic if inhaled - H331

Precautionary statements

- Prevention**
- Do not breathe fume/gas. - P260
 - Wash thoroughly after handling. - P264
 - Do not eat, drink or smoke when using this product. - P270
 - Use only outdoors or in a well-ventilated area. - P271
 - Wear protective gloves/protective clothing/eye protection/face protection. - P280
- Response**
- Specific treatment, see supplemental first aid information. - P321
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340
 - Call a POISON CENTER or doctor/physician. - P311
 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353
 - Wash contaminated clothing before reuse. - P363
 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338
 - Immediately call a POISON CENTER or doctor/physician. - P310
 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. - P301+P330+P331
- Storage/Disposal**
- Store in a well-ventilated place. Keep container tightly closed. - P403+P233
 - Store locked up. - P405

2.3 Other hazards**OSHA HCS 2012**

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada**According to WHMIS****2.1 Classification of the substance or mixture****WHMIS**

- Compressed Gas - A
- Very Toxic - D1A
- Corrosive - E

2.2 Label elements**WHMIS**

- Compressed Gas - A
- Very Toxic - D1A
- Corrosive - E

2.3 Other hazards**WHMIS**

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive
Hydrogen Chloride	CAS:7647-01-0 EC Number:231-595-7 EU Index:017-002-00-2	>= 99%	Inhalation-Rat LC50 • 3124 ppm 1 Hour(s) Ingestion/Oral-Rabbit LD50 • 900 mg/kg	EU DSD/DPD: Annex I - T; R23 C; R35 EU CLP: Annex VI - Press. Gas, H280; Acute Tox. 3 * H331; Skin Corr. 1A, H314 OSHA HCS 2012: Press. Gas - Liq.; Eye Dam. 1; Skin Corr. 1A; Acute Tox. 3 (inhalation)

3.2 Mixtures

- Material does not meet the criteria of a mixture in accordance with Regulation (EC) No 1272/2008.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- If frostbite has occurred, seek medical attention immediately; do NOT rub the affected area(s) or flush them with water. In order to prevent further tissue damage, do NOT attempt to remove frozen clothing from frostbitten areas. If frostbite has not occurred, immediately and thoroughly wash contaminated skin with soap and water.

Eye

- If eye tissue is frozen, seek medical attention immediately; if tissue is not frozen, immediately and thoroughly flush the eyes with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation, pain, swelling, lacrimation or photophobia persist, get medical attention as soon as possible.

Ingestion

- If frostbite has occurred, seek medical attention immediately; do NOT rub the affected area(s) or flush them with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

4.4 Other information

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO GASES WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus must be worn. Victim(s) who experience any adverse effect after over-exposure to this gas mixture must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take a copy of the label and the MSDS to physician or other health professional with victim(s).

Section 5 - Firefighting Measures

5.1 Extinguishing media

- Suitable Extinguishing Media**
- Use extinguishing agent suitable for type of surrounding fire.
SMALL FIRES: Dry chemical or CO₂.
LARGE FIRES: Water spray or fog.

- Unsuitable Extinguishing Media**
- No data available

5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- TOXIC; may be fatal if inhaled, ingested or absorbed through skin.
Vapors are extremely irritating and corrosive.
Cylinders exposed to fire may vent and release toxic and/or corrosive gas through pressure relief devices.
Containers may explode when heated.
Ruptured cylinders may rocket.
Will be easily ignited by heat, sparks or flames.
Will form explosive mixtures with air.
May emit hydrogen gas upon contact with metal. Contact with water causes formation of dense hydrochloric acid fumes.

- Hazardous Combustion Products**
- No data available

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.
Wear positive pressure self-contained breathing apparatus (SCBA).
Move containers from fire area if you can do it without risk.
FIRE: If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.
FIRE INVOLVING TANKS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
FIRE INVOLVING TANKS: Cool containers with flooding quantities of water until well after fire is out.
FIRE INVOLVING TANKS: Do not direct water at source of leak or safety devices; icing may occur.
FIRE INVOLVING TANKS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
FIRE INVOLVING TANKS: ALWAYS stay away from tanks engulfed in fire.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Self contained breathing apparatus and fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch or walk through spilled material. Ventilate the area before entry.
- Emergency Procedures**
- LARGE SPILL: Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unauthorized personnel away. Keep out of low areas. Stay upwind. Do not direct water at spill or source of leak.

6.2 Environmental precautions

- Prevent spreading of vapors through sewers, ventilation systems and confined areas.

6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Stop leak if you can do it without risk.
Do not direct water at spill or source of leak.
Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container.
If possible, turn leaking containers so that gas escapes rather than liquid.

Isolate area until gas has dispersed.
Ventilate the area.
Allow substance to evaporate.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Use only with adequate ventilation. Ventilate closed spaces before entering. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe gas. Do not get in eyes, on skin, or on clothing. Cylinders should be firmly secured to prevent falling or being knocked-over. Do not allow area where cylinders are stored to exceed 52C (125F). Do not attempt to repair, adjust, or in any other way modify cylinders. If there is a malfunction or another type of operational problem, contact nearest distributor immediately. Empty containers retain product residue and can be hazardous. Do not cut, weld, puncture or incinerate container.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place. Protect cylinders against physical damage. Cylinders should be firmly secured to prevent falling or being knocked-over.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Control Notations

Portugal

•Hydrogen Chloride (7647-01-0): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Germany DFG

•Hydrogen Chloride (7647-01-0): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

8.2 Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If possible, handle the material in an efficient fume hood.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety glasses.

Skin/Body

- Wear leather gloves when handling cylinders.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

MAC = Maximum Allowable Concentration

NIOSH = National Institute of Occupational Safety and Health

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

LLV = Limit Level Value is the exposure limit for 8-hour work day

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Gas	Appearance/Description	Colorless gas with suffocating pungent odor.
Color	Colorless	Odor	Suffocating pungent odor.
Odor Threshold	0.2 to 5 ppm		
General Properties			
Boiling Point	-84.8 C(-120.64 F)	Melting Point	-155 C(-247 F)
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Soluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	42.71 atm @ 20 C(68 F)	Vapor Density	1.268 Air=1
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not flammable.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Storage in poorly ventilated areas. Excess heat.

10.5 Incompatible materials

- Corrosive to many metals when moisture is present releasing flammable hydrogen gas. Galvanized pipe, brass, copper, bronze, alkaline materials, cyanides, and sulfites. Reacts exothermic (heat producing) with many organic materials. Also reacts with fluorides, calcium carbide, rubidium carbide, and lithium silicide. Combustibles especially oils and greases.

10.6 Hazardous decomposition products

- HCl, hydrogen or chlorine gas.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

	CAS	
Hydrogen Chloride	7647-01-0	Irritation: Eye-Rabbit • 5 mg 30 Second(s)-Rinse • Mild irritation; Reproductive: Inhalation-Rat TClO • 450 mg/m ³ 1 Hour(s)(1D pre); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Specific Developmental Abnormalities:Homeostasis</i>

GHS Properties	Classification
Acute toxicity	EU/CLP • Acute Toxicity - Inhalation 3 OSHA HCS 2012 • Acute Toxicity - Inhalation 3
Aspiration Hazard	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Carcinogenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	EU/CLP • Skin Corrosion 1A OSHA HCS 2012 • Skin Corrosion 1A
Skin sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-RE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
STOT-SE	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Toxicity for Reproduction	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Respiratory sensitization	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	EU/CLP • Classification criteria not met OSHA HCS 2012 • Serious Eye Damage 1

Potential Health Effects

Inhalation

Acute (Immediate)

- Toxic if inhaled. May cause corrosive burns - irreversible damage. Contact with rapidly expanding gas may cause burns or frostbite.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

- Causes severe skin burns and eye damage. Contact with rapidly expanding gas may cause burns or frostbite.

Chronic (Delayed)

- No data available

Eye

Acute (Immediate)

- Causes serious eye damage. Contact with gas or liquefied gas will cause burns, severe injury and/or frostbite.

Chronic (Delayed)

- No data available

Ingestion**Acute (Immediate)**

- May cause corrosive burns - irreversible damage. Contact with rapidly expanding gas may cause burns or frostbite.

Chronic (Delayed)

- No data available

Key to abbreviations

TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- PBT and vPvB assessment has not been conducted for this material.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods**Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1050	Hydrogen chloride, anhydrous	2.3,8	NDA	NDA
TDG	UN1050	HYDROGEN CHLORIDE, ANHYDROUS	2.3,8	NDA	NDA
IMO/IMDG	UN1050	HYDROGEN CHLORIDE, ANHYDROUS	2.3,8	NDA	NDA
IATA/ICAO	NDA	Forbidden	NDA	NDA	NDA

14.6 Special precautions for user

- Cylinders should be transported in a secure position, in a well-ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards. If transporting these cylinders in vehicles, ensure these cylinders are not exposed to extremely high temperatures (as may occur in an enclosed vehicle on a hot day). Additionally, the vehicle should be well-ventilated during transportation.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

14.8 Other information

- Hydrogen Chloride carries a Special Provision 3 Inhalation Hazard Zone C
- DOT** • Hydrogen chloride has a reportable quantity of 5000 lbs (2270 kg) as listed in Appendix A to 49 CFR 172.101.

Section 15 - Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications • Acute, Pressure(Sudden Release of)

Canada**Labor****Canada - WHMIS - Classifications of Substances**

• Hydrogen Chloride	7647-01-0	Not Listed
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Canada - WHMIS - Ingredient Disclosure List

• Hydrogen Chloride	7647-01-0	Not Listed
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Environment**Canada - CEPA - Priority Substances List**

• Hydrogen Chloride	7647-01-0	Not Listed
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China**Environment****China - Ozone Depleting Substances - First Schedule**

• Hydrogen Chloride	7647-01-0	Not Listed
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China - Ozone Depleting Substances - Second Schedule

• Hydrogen Chloride	7647-01-0	Not Listed
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China - Ozone Depleting Substances - Third Schedule

• Hydrogen Chloride	7647-01-0	Not Listed
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Europe**Other****EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**

• Hydrogen Chloride	7647-01-0	Not Listed
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Hydrogen Chloride	7647-01-0	Not Listed
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EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Hydrogen Chloride	7647-01-0	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations		
• Hydrogen Chloride	7647-01-0	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases		
• Hydrogen Chloride	7647-01-0	Not Listed

Germany

Environment

Germany - TA Luft - Types and Classes		
• Hydrogen Chloride	7647-01-0	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
• Hydrogen Chloride	7647-01-0	Not Listed
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
• Hydrogen Chloride	7647-01-0	Not Listed
Germany - Water Classification (VwVwS) - Annex 3		
• Hydrogen Chloride	7647-01-0	Not Listed

Other

Germany - Specifically Regulated Chemicals in TRGS		
• Hydrogen Chloride	7647-01-0	Not Listed

Portugal

Other

Portugal - Prohibited Substances		
• Hydrogen Chloride	7647-01-0	Not Listed

United Kingdom

Environment

United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air		
• Hydrogen Chloride	7647-01-0	Not Listed

Other

United Kingdom - Workplace Exposure Limits (WELs) - Substances in Review		
• Hydrogen Chloride	7647-01-0	Not Listed
United Kingdom - List of Dangerous Substances in Water		
• Hydrogen Chloride	7647-01-0	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals		
• Hydrogen Chloride	7647-01-0	Not Listed
U.S. - OSHA - Specifically Regulated Chemicals		
• Hydrogen Chloride	7647-01-0	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Hydrogen Chloride	7647-01-0	Not Listed
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United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - California - Proposition 65 - Developmental Toxicity

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Hydrogen Chloride	7647-01-0	Not Listed
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United States - Pennsylvania**Labor****U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Hydrogen Chloride	7647-01-0	Not Listed
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U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Hydrogen Chloride	7647-01-0	Not Listed
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15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date

- 17/October/2014

Preparation Date

- 17/October/2014

Disclaimer/Statement of Liability

- To the best of Air Liquide's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

Key to abbreviations

NDA = No Data Available