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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Trade name : HYDROGEN CHLORIDE - ANHYDROUS
Chemical name : hydrogen chloride
EC Index : 017-002-00-2
EC-No. : 231-595-7
CAS-No. : 7647-01-0
Formula : HCl

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

1.2.1. Relevant identified uses

Main use category : Professional use,Industrial use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Qatar Vinyl Company Ltd. (QVC)
P.O. Box 24440
Doha
State of Qatar

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Gases under pressure : Liquefied gas H280
Acute toxicity (inhalation:gas) Category 3 H331
Skin corrosion/irritation, Category 1, Sub-Category 1A H314
Serious eye damage/eye irritation, Category 1 H318
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word

Hazard statements (CLP)

Precautionary statements (CLP)

- : Danger
- : H280 - Contains gas under pressure; may explode if heated.
H314 - Causes severe skin burns and eye damage.
H331 - Toxic if inhaled.
- : P260 - Do not breathe dust, fume, gas, mist, spray, vapours.
P264 - Wash hands, forearms and face thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+ P361+ P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.
P501 - Dispose of contents and container to an approved waste disposal plant.
- : EC Index-No.: 017-002-00-2

Listed on CLP Annex VI

2.3. Other hazards

Other hazards

- : Results of PBT and vPvB assessment : Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

- Substance name : HYDROGEN CHLORIDE - ANHYDROUS
- CAS-No. : 7647-01-0
- EC-No. : 231-595-7
- EC Index : 017-002-00-2

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Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hydrogen chloride	CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index: 017-002-00-2 REACH-no: 01-2119484862-27	100	Press. Gas Acute Tox. 3 (Inhalation), H331 (ATE=700 ppmv/4h) Skin Corr. 1A, H314 Eye Dam. 1, H318

Full text of H- and EUH-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice	: First aider: Pay attention to self-protection!. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance. Treat symptomatically.
Inhalation	: Remove casualty to fresh air and keep warm and at rest. Give oxygen or artificial respiration if necessary. Get medical advice/attention. Get immediate medical advice/attention.
Skin contact	: Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water. Get immediate medical advice/attention.
Eyes contact	: Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
Ingestion	: Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	: Toxic if inhaled. The following symptoms may occur: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Skin contact	: Causes severe burns. The following symptoms may occur: irritation (itching, redness, blistering).
Eyes contact	: Causes serious eye damage. The following symptoms may occur: Causes serious eye irritation, redness, itching, tears.
Ingestion	: The following symptoms may occur: Causes severe burns.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: For small fire: Dry chemical, Carbon dioxide (CO2). For large fire: Water spray, Foam.
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Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards : Not flammable. Heating will cause a rise in pressure with a risk of bursting.

Explosion hazard : Contains gas under pressure; may explode if heated.

Reactivity in case of fire : Toxic and corrosive vapours may be released.

Hazardous decomposition products in case of fire : None known.

5.3. Advice for firefighters

Firefighting instructions : Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Positive pressure self-contained breathing apparatus (SCBA).

Other information : Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel : Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe gas. Avoid contact with skin, eyes and clothing. Keep away from heat and direct sunlight. Use explosion-proof equipment.

6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Leave evaporate and disperse. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe gas. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Avoid release to the environment. Keep away from heat and direct sunlight. Use explosion-proof equipment.

Hygiene measures

: Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

: Store in a dry, cool and well-ventilated place.

Incompatible materials

: Metals. Strong oxidizing agents. Strong reducing agents. Bases. alcohols. Amines.

Storage temperature

: < 50 °C

Heat and ignition sources

: Pressurised container. Protect from sunlight and do not expose to temperatures exceeding 50°C.

Packaging materials

: Keep only in the original container.

Switzerland

Storage class (LK)

: LK 2 - Liquefied or pressurized gases

7.3. Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

hydrogen chloride (7647-01-0)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Hydrogen chloride
IOEL TWA	8 mg/m ³
	5 ppm
IOEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

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hydrogen chloride (7647-01-0)	
Albania - Occupational Exposure Limits	
Local name	Klorur hidrogjeni
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	VENDIM Nr. 522, datë 6.8.2014 PËR MIRATIMIN E RREGULLORES "PËR MBROJTJEN E SIGURISË DHE SHËNDETIT TË PUNËMARRËSVE NGA RISQET E LIDHURA ME AGJENTËT KIMIKË NË PUNË"
Austria - Occupational Exposure Limits	
Local name	Chlorwasserstoff (Hydrogenchlorid; Salzsäure)
MAK (OEL TWA)	8 mg/m ³
	5 ppm
MAK (OEL STEL)	15 mg/m ³
	10 ppm
Regulatory reference	BGBl. II Nr. 156/2021
Belgium - Occupational Exposure Limits	
Local name	Hydrogène (chlorure d') # Waterstofchloride
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 16/11/2023
Bulgaria - Occupational Exposure Limits	
Local name	Хлороводород
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Remark	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)
Croatia - Occupational Exposure Limits	
Local name	Vodikov klorid
GVI (OEL TWA)	8 mg/m ³
	5 ppm

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hydrogen chloride (7647-01-0)	
KGVI (OEL STEL)	15 mg/m ³
	10 ppm
Remark	Direktiva: 2000/39/EZ
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 148/2023)
Cyprus - Occupational Exposure Limits	
Local name	Υδροχλώριο
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Κανονισμοί του 2007 (Κ.Δ.Π. 295/2007)
Czech Republic - Occupational Exposure Limits	
Local name	Chlorovodík
PEL (OEL TWA)	8 mg/m ³
	5 ppm
NPK-P (OEL C)	15 mg/m ³
	10 ppm
Remark	I - dráždí sliznice (oči, dýchací cesty) resp. kůže.
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (Předpis 330/2023 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Hydrogenchlorid (Chlorbrinte)
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	8 mg/m ³
	5 ppm
Remark	E (betyder, at stoffet har en EF-grænseværdi)
Regulatory reference	BEK nr 202 af 21/02/2023
Estonia - Occupational Exposure Limits	
Local name	Vesinikkloriid
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 21.12.2022, 3)

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hydrogen chloride (7647-01-0)	
Finland - Occupational Exposure Limits	
Local name	Kloorivety, vedetön
HTP (OEL STEL)	7,6 mg/m ³ (anhydrous and in solution)
	5 ppm (anhydrous and in solution)
Regulatory reference	HTP-ARVOT 2020 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Chlorure d'hydrogène (Acide chlorhydrique)
VLE (OEL C/STEL)	7,6 mg/m ³ (restrictive limit)
	5 ppm (restrictive limit)
Remark	Valeurs réglementaires contraignantes
Regulatory reference	Article R4412-149 du Code du travail (réf.: INRS ED 6443, 2022; Outil65; Décret n° 2019-1487; Décret n° 2020-1546; Décret n° 2021-434; Décret n° 2021-1849)
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Hydrogenchlorid
Occupational exposure limit value (mg/m ³) (TRGS900)	3 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Occupational exposure limit value (ppm) (TRGS900)	2 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Peak exposure limitation factor	2(I)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); EU - Europäische Union (Von der EU wurde ein Luftgrenzwert festgelegt: Abweichungen bei Wert und Spitzenbegrenzung sind möglich); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden
Regulatory reference	TRGS900
Gibraltar - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181)
Greece - Occupational Exposure Limits	
Local name	Υδροχλώριο
OEL TWA	7 mg/m ³
	5 ppm

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hydrogen chloride (7647-01-0)	
OEL STEL	7 mg/m ³
	5 ppm
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
Hungary - Occupational Exposure Limits	
Local name	SÓSAV
AK (OEL TWA)	8 mg/m ³
CK (OEL STEL)	165 mg/m ³
Remark	i (ingerlő anyag, amely izgatja a bőrt, nyálkahártyát, szemet vagy mindhármat), m (maró hatású anyag, amely felmarja a bőrt, nyálkahártyát, szemet vagy mindhármat); EU1 (2000/39/EK irányelvben közölt érték); N (Irritáló anyagok, egyszerű fojtógázok, csekély egészségkárosító hatással bíró anyagok)
Regulatory reference	5/2020. (II. 6.) ITM rendelet - A kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
Ireland - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Remark	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2021
Italy - Occupational Exposure Limits	
Local name	Acido cloridrico
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
Latvia - Occupational Exposure Limits	
Local name	Hlorūdeņradis
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325

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Lithuania - Occupational Exposure Limits

Local name	Vandenilio chloridas
IPRV (OEL TWA)	8 mg/m ³
	5 ppm
TPRV (OEL STEL)	15 mg/m ³
	10 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)

Luxembourg - Occupational Exposure Limits

Local name	Chlorure d'hydrogène
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Mémorial A N° 226 de 2021 concernant la protection de la sécurité et de la santé des salariés contre les risques liés à des agents chimiques sur le lieu de travail

Malta - Occupational Exposure Limits

Local name	Hydrogen chloride
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	S.L.424.24 - Chemical Agents at Work Regulations (L.N.356 of 2021)

Netherlands - Occupational Exposure Limits

Local name	Zoutzuur
TGG-8u (OEL TWA)	8 mg/m ³
	5 ppm
TGG-15min (OEL STEL)	15 mg/m ³
	10 ppm
Regulatory reference	Arbeidsomstandighedenregeling 2024

Poland - Occupational Exposure Limits

Local name	Chlorowodór
NDS (OEL TWA)	5 mg/m ³
NDSch (OEL STEL)	10 mg/m ³
Regulatory reference	Dz. U. 2018 poz. 1286 wraz z późn. zm.

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Portugal - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ácido clorídrico
IOEL TWA	8 mg/m ³
	5 ppm
IOEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Decreto-Lei n.º 1/2021 de 6 de janeiro
Portugal - Occupational Exposure Limits	
Local name	Ácido clorídrico
OEL TWA	8 mg/m ³ (indicative limit value)
	5 ppm (indicative limit value)
OEL STEL	15 mg/m ³ (indicative limit value)
	10 ppm (indicative limit value)
OEL C	2 mg/m ³
	2 ppm
OEL chemical category	A4 - Not Classifiable as a Human Carcinogen
Remark	A4 (Agente não classificável como carcinogénico no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Acid clorhidric/Clorură de hidrogen
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)
Serbia - Occupational Exposure Limits	
Local name	водоник хлорид, хлороводоник
OEL TWA	8 mg/m ³
	5 ppm
OEL STEL	15 mg/m ³
	10 ppm
Remark	EY* – напомена да се ради о хемијским материјама за које су утврђене индикативне граничне вредности изложености према Директиви 2000/39/EЗ (прва листа)
Regulatory reference	ПРАВИЛНИК о превентивним мерама за безбедан и здрав рад при излагању хемијским материјама („Службени гласник РС”, бр. 106/09, 117/17 и 107/21)

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Slovakia - Occupational Exposure Limits	
Local name	Chlorovodík
NPHV (OEL TWA)	8 mg/m ³
	5 ppm
NPHV (OEL STEL)	15 mg/m ³
	10 ppm
NPHV (OEL C)	15 mg/m ³
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)
Slovenia - Occupational Exposure Limits	
Local name	vodikov klorid, brezvodni (klorovodik, brezvodni)
OEL TWA	8 mg/m ³ (anhydrous)
	5 ppm (anhydrous)
OEL STEL	15 mg/m ³ (anhydrous)
	10 ppm (anhydrous)
Remark	Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in bat vrednosti), EU
Regulatory reference	Uradni list RS, št. 72/2021 z dne 11.5.2021
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA)	7,6 mg/m ³ (indicative limit value)
	5 ppm (indicative limit value)
VLA-EC (OEL STEL)	15 mg/m ³
	10 ppm
Sweden - Occupational Exposure Limits	
Local name	Saltsyra (Väteklorid)
NGV (OEL TWA)	3 mg/m ³
	2 ppm
KGV (OEL STEL)	6 mg/m ³
	4 ppm
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Hydrogen chloride
WEL TWA (OEL TWA)	2 mg/m ³ (aerosol mist and gas)
	1 ppm (aerosol mist and gas)
WEL STEL (OEL STEL)	8 mg/m ³ (aerosol mist and gas)
	5 ppm (aerosol mist and gas)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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hydrogen chloride (7647-01-0)	
Iceland - Occupational Exposure Limits	
Local name	Vetnisklórið (klórvetni)
OEL STEL	8 mg/m ³
	5 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway - Occupational Exposure Limits	
Local name	Hydrogenklorid (Saltsyre)
Takverdi (OEL C)	7 mg/m ³
	5 ppm
Remark	E: EU har en veiledende grenseverdi og/eller anmerkning for stoffet.
Regulatory reference	FOR-2023-12-18-2278
North Macedonia - Occupational Exposure Limits	
Local name	хлороводород, безводен
OEL TWA	8 mg/m ³
	5 ppm
KTV	2
Short time value [mg/m ³]	16 mg/m ³
Short time value	10 ppm
Remark	(KTV) краткотрајна вредност (КТВ) значи концентрација на опасни хемиски супстанции во воздухот на работното место внатре во зона на дишење, на која работникот без опасност по здравјето може да е изложен на покусо време. Изложеноста на краткотрајни вредности може да трае највеќе 15 минути и не смее да се повтори повеќе од четирипати во работната смена, при што меѓу две изложености на оваа концентрација мора да измине најмалку 60 минути. Краткотрајната вредност е изразена во mg/m ³ или во ml/m ³ (ppm) а е дадена како многукратни дозволени пречекорувања на граничната вредност; (EU) European Union – гранична вредност, определена на ниво на Европската унија
Regulatory reference	Правилник за минималните барања за безбедност и здравје при работа на вработени од ризици поврзани со изложување на хемиски супстанции („Службен весник на Република Македонија“ бр.46/10)
Switzerland - Occupational Exposure Limits	
Local name	Acide chlorhydrique / Chlorwasserstoff [Salzsäure]
MAK (OEL TWA)	3 mg/m ³
	2 ppm
KZGW (OEL STEL)	6 mg/m ³
	4 ppm
Notation	SS _C / SS _C

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hydrogen chloride (7647-01-0)	
Remark	NIOSH, DFG, OSHA
Regulatory reference	www.suva.ch, 01.01.2024
USA - ACGIH - Occupational Exposure Limits	
Local name	Hydrogen chloride
ACGIH OEL C	2 ppm
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2024

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Personal air monitoring. Room air monitoring.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Additional information : Recommended monitoring procedures :. Personal air monitoring. Room air monitoring

8.1.5. Control banding

No additional information available

8.2. Exposure controls

Engineering measure(s)	: Provide adequate ventilation. Organisational measures to prevent/limit releases, dispersion and exposure. See Section 7 for information on safe handling. Handle substance within a closed system. Provide extract ventilation to points where emissions occur. Emergency safety showers should be available in the immediate vicinity of any potential exposure. Provide eye shower and label its location conspicuously. Handle substance within a closed system. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Personal protective equipment	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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Hand protection	: Wear chemically resistant gloves (tested to EN374) . Suitable material: The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Eye protection	: full face mask (DIN EN 136)
Body protection	: Wear suitable protective clothing. Wear suitable coveralls to prevent exposure to the skin. Use chemically protective clothing. Chemical resistant safety shoes
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. full face mask (DIN EN 136). Filter type: The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
Thermal hazard protection	: Not required for normal conditions of use. Use dedicated equipment.
Environmental exposure controls	: Avoid release to the environment. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Colour	: Colourless.
Appearance	: Colorless gas.
Molecular weight	: 36,46 g/mol
Odour	: Pungent. choking.
Odour threshold	: No data available
Melting / freezing point	: -114,4 °C
Freezing point	: Not applicable
Initial boiling point and boiling range	: -85 °C
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: 1,1 (Solution: 0.1 N)
Kinematic viscosity	: No data available
Dynamic viscosity	: No data available
Solubility	: Water: 720000 mg/l
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water	: No data available
Vapour pressure	: 42,6 bar (at 20 °C)
Vapour pressure at 50°C	: 80,6 bar
Density	: 1,161 – 1,19 g/cm ³ (at 20 °C)
Relative density	: No data available
Vapour density	: No data available
Particle characteristics	: Not applicable

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9.2. Other information

9.2.1. Information with regard to physical hazard classes

Critical temperature : 51,4 °C

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reference to other sections: 10.4 & 10.5.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

See Section 7 for information on safe handling. Keep away from heat.

10.5. Incompatible materials

See Section 7 for information on safe handling.

10.6. Hazardous decomposition products

Reference to other sections 5.2.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
 Acute toxicity (dermal) : Not classified
 Acute toxicity (inhalation) : Inhalation:gas: Toxic if inhaled.

HYDROGEN CHLORIDE - ANHYDROUS (7647-01-0)	
LD50/oral/rat	238 – 277 mg/kg (Source: JAPAN_GHS)
LD50/dermal/rabbit	> 5010 mg/kg (Source: JAPAN_GHS)
LC50/inhalation/4h/rat	1,68 mg/l (Exposure time: 1 h Source: JAPAN_GHS)

hydrogen chloride (7647-01-0)	
LD50/oral/rat	238 – 277 mg/kg (Source: JAPAN_GHS)
LD50/dermal/rabbit	> 5010 mg/kg (Source: JAPAN_GHS)
LC50/inhalation/4h/rat	1,68 mg/l (Exposure time: 1 h Source: JAPAN_GHS)

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Skin corrosion/irritation : Causes severe skin burns.
pH: 1,1 (Solution: 0.1 N)

hydrogen chloride (7647-01-0)	
pH	1,1 (conc: 0.1 N (solution))

Serious eye damage/irritation : Causes serious eye damage.
pH: 1,1 (Solution: 0.1 N)

hydrogen chloride (7647-01-0)	
pH	1,1 (conc: 0.1 N (solution))

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

hydrogen chloride (7647-01-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not applicable

HYDROGEN CHLORIDE - ANHYDROUS (7647-01-0)	
Kinematic viscosity	No data available

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

11.2.2. Other information

Other information : Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

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Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

hydrogen chloride (7647-01-0)	
LC50 - Fish [1]	3,25 – 3,5 mg/l
EC50 - Crustacea [1]	4,92 mg/l (daphnia magna)
EC50 72h - Algae [1]	4,7 mg/l

12.2. Persistence and degradability

HYDROGEN CHLORIDE - ANHYDROUS (7647-01-0)	
Persistence and degradability	No additional information available.

12.3. Bioaccumulative potential

HYDROGEN CHLORIDE - ANHYDROUS (7647-01-0)	
Partition coefficient n-octanol/water	No data available
Bioaccumulative potential	No additional information available.

12.4. Mobility in soil

HYDROGEN CHLORIDE - ANHYDROUS (7647-01-0)	
Mobility in soil	No data available

12.5. Results of PBT and vPvB assessment

HYDROGEN CHLORIDE - ANHYDROUS (7647-01-0)	
Results of PBT assessment	Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Other adverse effects : No data available.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations

: Avoid release to the environment. Dispose of empty containers and wastes safely. See Section 7 for information on safe handling. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations. Do not pierce or burn, even after use. Never use pressure to empty container.

: This material and its container must be disposed of as hazardous waste

Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC)

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
1050	1050	1050	1050	1050
14.2. UN proper shipping name				
HYDROGEN CHLORIDE, ANHYDROUS	HYDROGEN CHLORIDE, ANHYDROUS	Hydrogen chloride, anhydrous	HYDROGEN CHLORIDE, ANHYDROUS	HYDROGEN CHLORIDE, ANHYDROUS
Transport document description				
UN 1050 HYDROGEN CHLORIDE, ANHYDROUS, 2.3 (8), (C/D)	UN 1050 HYDROGEN CHLORIDE, ANHYDROUS, 2.3 (8)	UN 1050 Hydrogen chloride, anhydrous, 2.3 (8)	UN 1050 HYDROGEN CHLORIDE, ANHYDROUS, 2.3 (8)	UN 1050 HYDROGEN CHLORIDE, ANHYDROUS, 2.3 (8)
14.3. Transport hazard class(es)				
2.3 (8)	2.3 (8)	2.3 (8)	2.3 (8)	2.3 (8)
 	 	Not applicable	 	 
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

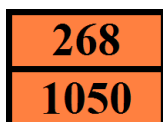
Special precautions for user : No data available

- Overland transport

Classification code (ADR) : 2TC
 Limited quantities (ADR) : 0
 Excepted quantities (ADR) : E0

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Packing instructions (ADR) : P200
 Mixed packing provisions (ADR) : MP9
 Portable tank and bulk container instructions (ADR) : (M)
 Tank code (ADR) : PxBH(M)
 Tank special provisions (ADR) : TA4, TT9, TT10
 Vehicle for tank carriage : AT
 Transport category (ADR) : 1
 Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV10, CV36
 Special provisions for carriage - Operation (ADR) : S14
 Hazard identification number (Kemler No.) : 268
 Orange plates :



Tunnel restriction code : C/D
 EAC code : 2RE
 APP code : A(c)

- Transport by sea

Limited quantities (IMDG) : 0
 Excepted quantities (IMDG) : E0
 Packing instructions (IMDG) : P200
 EmS-No. (Fire) : F-C
 EmS-No. (Spillage) : S-U
 Stowage category (IMDG) : D
 Stowage and handling (IMDG) : SW2
 Properties and observations (IMDG) : Non-flammable, toxic and corrosive colourless gas with a pungent odour. Highly corrosive in the presence of water. Heavier than air (1.3). Highly irritating to skin, eyes and mucous membranes.

- Air transport

PCA Limited quantities (IATA) : Forbidden
 PCA limited quantity max net quantity (IATA) : Forbidden
 PCA packing instructions (IATA) : Forbidden
 PCA max net quantity (IATA) : Forbidden
 CAO packing instructions (IATA) : Forbidden
 CAO max net quantity (IATA) : Forbidden
 Special provisions (IATA) : A2
 ERG code (IATA) : 2CP

- Inland waterway transport

Classification code (ADN) : 2TC
 Limited quantities (ADN) : 0

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Excepted quantities (ADN) : E0
 Equipment required (ADN) : PP, EP, TOX, A
 Ventilation (ADN) : VE02
 Number of blue cones/lights (ADN) : 2

- Rail transport

Classification code (RID) : 2TC
 Limited quantities (RID) : 0
 Excepted quantities (RID) : E0
 Packing instructions (RID) : P200
 Mixed packing provisions (RID) : MP9
 Portable tank and bulk container instructions (RID) : (M)
 Tank codes for RID tanks (RID) : PxBH(M)
 Special provisions for RID tanks (RID) : TU38, TE22, TE25, TA4, TT9, TT10, TM6
 Transport category (RID) : 1
 Special provisions for carriage - Loading, unloading and handling (RID) : CW9, CW10, CW36
 Hazard identification number (RID) : 268

14.7. Maritime transport in bulk according to IMO instruments

Code: IBC : No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (EU 1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

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Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Hydrochloric acid	Hydrogen chloride	7647-01-0	2806 10 00	Category 3		Annex I

Detergent Regulation (648/2004/EC): Labelling of contents

15.1.2. National regulations

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France

Occupational diseases			
Code	Description		
RG 66	Occupational rhinitis and asthma		
Installations classées			
No ICPE	Désignation de la rubrique	Code Régime	Rayon
4130.text	Toxicité aiguë catégorie 3 pour les voies d'exposition par inhalation.		
4130.1a	1. Substances et mélanges solides. La quantité totale susceptible d'être présente dans l'installation étant : a) Supérieure ou égale à 50 t Quantité seuil bas au sens de l'article R. 511-10 : 50 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	A	1
4130.1b	1. Substances et mélanges solides. La quantité totale susceptible d'être présente dans l'installation étant : b) Supérieure ou égale à 5 t, mais inférieure à 50 t Quantité seuil bas au sens de l'article R. 511-10 : 50 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	D	
4130.2a	2. Substances et mélanges liquides. La quantité totale susceptible d'être présente dans l'installation étant : a) Supérieure ou égale à 10 t Quantité seuil bas au sens de l'article R. 511-10 : 50 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	A	1
4130.2b	2. Substances et mélanges liquides. La quantité totale susceptible d'être présente dans l'installation étant : b) Supérieure ou égale à 1 t, mais inférieure à 10 t Quantité seuil bas au sens de l'article R. 511-10 : 50 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	D	
4130.3a	3. Gaz ou gaz liquéfiés. La quantité totale susceptible d'être présente dans l'installation étant : a) Supérieure ou égale à 2 t Quantité seuil bas au sens de l'article R. 511-10 : 50 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	A	3
4130.3b	3. Gaz ou gaz liquéfiés. La quantité totale susceptible d'être présente dans l'installation étant : b) Supérieure ou égale à 200 kg, mais inférieure à 2 t Quantité seuil bas au sens de l'article R. 511-10 : 50 t. Quantité seuil haut au sens de l'article R. 511-10 : 200 t.	D	

Germany

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Employment restrictions	: Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK)	: WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 238).
Chemicals Prohibition Ordinance (ChemVerbotsV)	: This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).
Hazardous Incident Ordinance (12. BlmSchV)	: Listed in the 12. BlmSchV (Annex I) under: 2.17 - Quantity threshold for operational area under § 1 para. 1 - Sentence 1 :25000 kg - Sentence 2 :250000 kg

Netherlands

Waterbezwaarlijkheid	: B (5) - Weinig schadelijk voor in het water levende organismen
SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	: The substance is not listed

Denmark

MAL code	: 00-6 (Executive Order No. 301 from 1993)
Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product

Switzerland

Chemicals Ordinance (ChemV, SR 813.11)	: Group 2
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15.2. Chemical safety assessment

Not applicable.

SECTION 16: Other information

Abbreviations and acronyms:

	ABM = Algemene beoordelingsmethodiek
	ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
	ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
	CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
	IATA = International Air Transport Association
	IMDG = International Maritime Dangerous Goods Code
	LEL = Lower Explosive Limit/Lower Explosion Limit
	UEL = Upper Explosion Limit/Upper Explosive Limit
	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
	BTT = Breakthrough time (maximum wearing time)
	DMEL = Derived Minimal Effect level
	DNEL = Derived No Effect Level
	EC50 = Median Effective Concentration
	EL50 = Median effective level
	ErC50 = EC50 in terms of reduction of growth rate

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	ErL50 = EL50 in terms of reduction of growth rate
	EWC = European waste catalogue
	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	LL50 = Median lethal level
	NA = Not applicable
	NOEC = No observed effect concentration
	NOEL: no-observed-effect level
	NOELR = No observed effect loading rate
	NOAEC = No observed adverse effect concentration
	NOAEL = No observed adverse effect level
	N.O.S. = Not Otherwise Specified
	OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
	PNEC = Predicted No Effect Concentration
	Quantitative structure-activity relationship (QSAR)
	STOT = Specific Target Organ Toxicity
	TWA = time weighted average
	VOC = Volatile organic compounds
	WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Other information : For any further details or query please contact us at:
stewardship@qapco.com.qa.

Full text of H- and EUH-statements:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H280	Contains gas under pressure; may explode if heated.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
Press. Gas	Gases under pressure
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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