

SAFETY DATA SHEET

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
HYDROCHLORIC ACID SOLUTION**

CAS number 7647-01-0
EU number 231-595-7
Index number: 017-002-01-X
Formula: HCl
Molar mass: 36, 47
REACH registration number: 01-2119484862-27-0111

1.1. Use of the substance/preparation (industrial, professional, private):

Use of the substance/mixture: by-product

1.2. Supplier:

Vinyl Kft.
3524 Miskolc
Adler Károly str. 19.
Telephone: +36 (46) 432-633
Fax: +36 (46) 365-816

1.3. Responsible person:

info@vinyl.hu

1.4. Emergency telephone number:

Local toxicological centre
<http://www.who.int/ipcs/poisons/centre/directory/en/>

2. HAZARDS IDENTIFICATION

R 34 - Causes burns.

R 37 - Irritating to respiratory system.

Classification according to the CLP regulation:

Skin corrosion/skin irritation: Category 1

Specific target organ toxicity category (single exposition): Category 3

GHS07



GHS05



DANGER

H314 – Causes severe skin burns and eye damage.

H335 – May cause respiratory irritation.

- 2.1. Information concerning specific hazards for human and environment:
See section 11.

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

Description	CAS number	EU number	REACH number	Concentration (%)	Hazard letter(s)	R-phrase	CLP classification
Hydrochloric Acid Solution *	7647-01-0	231-595-7	-	≥30	C	34-37	GHS05 GHS07 DANGER H314 H335

*Substance with obligatory classification

4. **FIRST AID MEASURES**

GENERAL INFORMATION: Obtain immediate medical attention and show him the label!

INFORMATION TO THE PHYSICIAN: No specific prescription.

Symptoms: None known.

Treatment: No specific prescription.

4.1. IN CASE OF INGESTION:

Measures:

- Obtain immediate medical attention and show him the label!
- Place the victim into comfortable position!
- Do not give the victim anything to eat or drink, and do not induce vomiting if the victim is unconscious.
- Flush the mouth of the victim with clean water.
- If the victim is conscious, give him 2-4 glasses of milk or water to drink.

4.2. IN CASE OF INHALATION:

Measures:

- Take the victim into fresh air, loosen his clothes and let him rest.
- If the breathing is laboured, give him oxygen.
- If the breathing has stopped, give artificial respiration.
- Obtain immediate medical attention and show him the label!

4.3. IN CASE OF SKIN CONTACT:

Measures:

- Remove the contaminated clothes.
- Wash the contaminated area with plenty of warm water and soap (for 15 minutes)!
- Obtain immediate medical attention and show him the label!

4.4. IN CASE OF EYE CONTACT:

Measures:

- In case of contact with eyes flush immediately with plenty of flowing water for 15 minutes holding eyelids apart (for at least 15 minutes)!
- Obtain immediate medical attention and show him the label!

5. **FIRE-FIGHTING MEASURES**

Non-combustible!

5.1. Suitable extinguishing media:

No specific prescription.

5.2. Unsuitable extinguishing media for safety reasons:

No data available.

5.3. Special protective equipment:

Wear full protective clothing and self-contained breathing apparatus. These means can protect from the skin and eye contact and from the inhalation of the hazardous gases and smoke.

5.4. Hazardous combustion products:

Smoke and other combustion products (hydrochloric acid, carbon monoxide, carbon dioxide). The inhalation of such combustion products can cause serious adverse effects on health!

5.5. Other:

The extinguishing water should not be allowed to drains or watercourses. The closed containers should be cooled with water.

6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS:

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident. Avoid contact with skin and eyes. Remove all ignition sources from the affected area. Use spark-proof equipments, because released hydrochloric acid reacts with metals to form hydrogen. Ensure adequate ventilation. Avoid the inhalation of vapours/mists/gases. Evacuate the unauthorized persons from the affected area.

6.2. ENVIRONMENTAL PRECAUTIONS:

Dispose of spillage and waste (product/packaging) in accordance with all applicable environmental laws. Do not allow to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. METHODS FOR CLEANING UP:

Collect the spilled material with inert, non-combustible absorbent, then place into a suitable, closed, properly labelled chemical waste container for disposal. During disposal wear suitable personal protective equipment.

7. HANDLING AND STORAGE

7.1. Handling:

Precautions for safe handling:

Observe conventional hygiene precautions.

Avoid the inhalation of dust, vapour, mist or gas.

Avoid contact with eyes, skin and clothing.

Technical measures:

Ensure adequate ventilation / local suction!

Precautions against fire and explosion-

7.2. Storage:

Technical measures and storage condition:

Keep in original, closed and labelled container.

The place of storage has to be properly ventilated and cleanable.

Store in cool and dry place.

Keep in tightly closed containers.

Keep in dry place.

Ensure adequate ventilation.

Follow all instructions on the label.

Incompatible materials: bases, metals.

Packaging material: Metal container lined with polyethylene, with inert material or polyethylene container. Do not use metal containers without lining.

7.3. Specific uses:

No specific instructions available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limit values:

Hydrochloric acid (Cas: 7647-01-0): Short-term value: 8 mg/kg; Long-term value: 16 mg/kg

DNEL		Routes of exposure	Exposure frequency:	Remarks:
Worker:	Consumer:			
		Dermal:	Short term (acute) Long term (repeated)	
		Inhalative	Short term (acute) Long term (repeated)	
		Oral	Short term (acute) Long term (repeated)	

PNEC			Exposure frequency:	Remarks:
Water	Soil	Air		
			Short term (single use)	
			Long term (repeated)	
			Short term (single use)	
			Long term (repeated)	
			Short term (single use)	
			Long term (repeated)	

8.2. Occupational exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.3. Engineering measures:

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation.

Before the breaks and after the work hours wash your hands thoroughly.

8.4. Personal protective equipment:

1. Respiratory protection: Conform to EN 136,141. Suitable respiratory protection resistant to solvent vapours and in case of necessity self-contained breathing apparatus.
2. Skin protection: Conform to EN 369. Use adequate acid resistant protective clothes.
3. Hand protection: Conform to EN 374. Use appropriate protective gloves.
4. Eye protection: Conform to EN 166. Use adequate protective goggles/ protective mask. In the vicinity of the workplace, eye washing fountain should be available.

8.5. Occupational exposure controls:

No specific prescription.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

9.1. Physical and chemical properties:

Parameter		Test method:	Remarks:
1. Physical state:	liquid		
2. Colour:	colourless or yellowish		
3. Odour:	pungent		
4. Melting point:	no data available		
5. Density (20 °C):	1, 1493 g/cm ³		
6. Solubility & Miscibility:	soluble in water		
7. Boiling point:	no data available		
8. Viscosity (20 °C):	0,28 mPas		
9. Ignition temperature:	not applicable.		
10. Flash point:	not applicable.		
11. Degradation temperature:	no data available		
12. pH value, aqueous solution (20 °C):	0,1 mol/l		
pH value, in supplied form (20 °C):	concentration		
13. Flammability:	non-combustible		
14. Oxidizing properties:	no data available		
15. Vapour pressure(20 °C):	2,13 kPa		
16. Evaporation rate (butyl acetate):	no data available		
17. Partition co-efficient (n-Octanol/water):	no data available		
18. Vapour density (air =1):	no data available		

9.2. Other information:

No data available.

10. STABILITY AND REACTIVITY10.1. Stability:

1. At normal temperature: stable at general conditions of work.
2. Hazardous decomposition products: : CO, CO₂, Cl. In contact with metals forms hydrogen.
3. Hazardous reactions, materials to avoid: strong bases, alkali metals, aluminium powder, concentrated sulfuric acid Keep away from heat, sparks, open flame.

11. TOXICOLOGICAL INFORMATION11.1. Acute toxicity (LD₅₀):

No data available.

11.2. Other:**Acute effects:**

Ingestion: If swallowed, burns in the esophagus and the stomach. Stomach cramps, bloody vomiting, shortness of breath. Danger of perforation in stomach and in esophagus.

Inhalation: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin contact: Causes skin burns.

Eye contact: Causes eye burns.

Irritation: None known.

Sensitization: No sensitizing effect known

Subacute toxicity:

Symptoms by intensive or prolonged exposition: not known

CMR effects:

Carcinogenicity: None known.

Reproductive toxicity: None known.

Mutagenicity: None known.

Summarized evaluation of the CMR properties: -

Specific symptoms observed in animal studies: not known.

12. ECOLOGICAL INFORMATION

Do not enter into drains, watercourses and soil. Dangerous to aquatic organisms. Adverse effects caused by the pH changes.

Ecotoxicity: Lethal effect to fish: > 25 mg/l; Dangerous effect to plants: > 6 mg/l

Mobility: No data available.

Persistence and biodegradation: No data available.

Bioaccumulation potential: No data available.

Results of PBT assessments: No data available.

Other adverse effects: No data available.

13. DISPOSAL CONSIDERATIONS

Disposal according to the local regulations.

Product: The product can be incinerated in a chemical incinerator equipped with an afterburner and scrubber.

European Waste Code: During the disposal of the product, its residue and its packaging the national and local prescriptions should be observed. The EWC codes indicated below are only recommendations, but they may have to be changed due to special circumstances, in such cases new classification may be needed.

Packaging: According to the consideration regarding the product.

14. TRANSPORT INFORMATION14.1. GENERAL INFORMATION:

1. UN Number: 1789

2. Proper shipping name: HYDROCHLORIC ACID

14.2. Land transport:

1. ADR/RID Class: 8. C1

2. Packing group: II

3. Labels: 8

4. Hazard number: 80

5. Tunnel restriction code: E

- 4.3. Marine transport:
1. IMO/MDG Class: 8
 2. Packing group: II
 3. Labels: 8
 4. EmS: F-A, S-B

- 14.4. Air transport:
1. ICAO/IATA Class: 8
 2. Packing group: II
 3. Labels: 8 (Corrosive)
 4. PAX 809 (1 l), CAO 813 (30 l)

15. REGULATORY INFORMATION

15.1. Chemical safety assessment-

15.2. Labelling:

Hazard symbols:



Risk phrases:

R 34 - Causes burns.

R 37 - Irritating to respiratory system.

Safety phrases:

S 1/2 - Keep locked up and out of the reach of children.

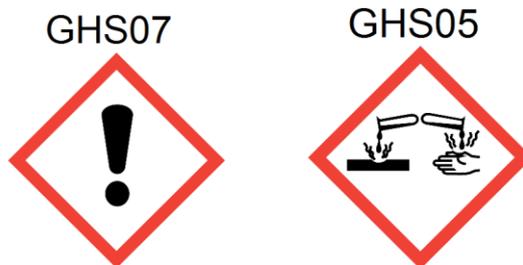
S 26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S 45 - In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

Classification according to the CLP regulation:

Skin corrosion/skin irritation: Category 1

Specific target organ toxicity category (single exposition): Category 3



DANGER

H-phrases:

H314 – Causes severe skin burns and eye damage.

H335 – May cause respiratory irritation.

P-phrases:

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 or doctor/physician.

P405 – Store locked up.

15.3. Packaging instructions-

15.4. Authorisations/Restrictions: -

15.5. Relevant EU regulations:

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

COMMISSION REGULATION (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

16. OTHER INFORMATION

Relevant R-Phrases (number and full text) of Section 2 and 3:

R 34 - Causes burns.

R 37 - Irritating to respiratory system.

Relevant H-Phrases (number and full text) of Section 2 and 3:

H314 – Causes severe skin burns and eye damage.

H335 – May cause respiratory irritation.

Training instructions: -

Recommended restrictions on use (non-statutory recommendations by supplier): -

Data sources:

Transport information: HUNGÁRIA VESZÉLYESÁRU MÉRNÖKI IRODA Kft. <<http://www.hvesz.hu/>>

All information, data and recommendations contained in this safety data sheet are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued. The SDS shall be used only as a guide for handling the product and can not be considered as a warranty or quality specification. During the use and handling of the product, additional, hereby non indicated considerations may be required within given circumstances. Since the manufacturer does not know the circumstances of the use and handling of the product, no warranty is assumed regarding the accuracy, completeness or suitability of all or any of the information contained herein at the time of use. Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. **PNEC**: Predicted no effect concentration. **CMR** effects: Carcinogenicity, Mutagenicity and reproduction toxicity. **PBT**: Persistent, bioaccumulative and toxic. . n.d.: not defined. . n.a.: Not applicable. .

(*) Modified sections: -