

# Hydrochloric acid 34-37% TGR for trace analysis (ppb)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Date of issue: 19/05/2022 Revision date: 11/03/2025 Supersedes version of: 25/11/2024 Version: 2.5

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

#### 1.1. Product identifier

Product form : Mixture  
Name : Hydrochloric Acid  
Trade name : Hydrochloric acid 34-37% TGR for trace analysis (ppb)  
UFI : 9E20-20MT-G00R-C8FQ  
EC Index-No. : 017-002-01-X  
EC-No. : 231-595-7  
Product code : CHAC-TGR  
Formula : ClH

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

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

No additional information available

#### 1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Corrosive to metals, Category 1 H290  
Skin corrosion/irritation, Category 1B H314  
Specific target organ toxicity — Single exposure, Category 3, H335  
Respiratory tract irritation  
Full text of H and EUH statements: see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Contains

: hydrogen chloride

Hazard statements (CLP)

: H290 - May be corrosive to metals.  
H314 - Causes severe skin burns and eye damage.  
H335 - May cause respiratory irritation.  
Precautionary statements (CLP)  
: P234 - Keep only in original packaging.  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
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/hearing

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protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

### 2.3. Other hazards

PBT: not relevant – no registration required

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) 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

### 3.2. Mixtures

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-No.: 017-002-00-2	20-38	Press. Gas Acute Tox. 3 (Inhalation), H331 Skin Corr. 1A, H314
WATER	CAS-No.: 7732-18-5 EC-No.: 231-791-2	Balance	Not classified

Full text of H and EUH statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get immediate medical advice/attention.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get immediate medical advice/attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Get immediate medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Do not induce vomiting. Get immediate medical advice/attention.

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

No additional information available

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam. earth, sand, dry chemical powder or foam.

### 5.2. Special hazards arising from the substance or mixture

No additional information available

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### 5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area.

#### For non-emergency personnel

Emergency procedures : Ventilate spillage area.

### 6.2. Environmental precautions

Do not allow to enter drains or water courses.

### 6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Collect spillage.

### 6.4. Reference to other sections

See Heading 8. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Keep containers closed.

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe vapours. Wear personal protective equipment.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight. Store in a well-ventilated place. Keep container tightly closed.

#### Switzerland

Storage class (LK) : LK 8 - Corrosive materials

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### DNEL and PNEC

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DNEL/DMEL (Workers)	
Acute - local effects, inhalation	15 mg/m <sup>3</sup>
Long-term - local effects, inhalation	8 mg/m <sup>3</sup>
PNEC (Water)	
PNEC aqua (freshwater)	36 µg/l

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PNEC aqua (marine water)	36 µg/l
PNEC aqua (intermittent, freshwater)	45 µg/l
PNEC (STP)	
PNEC sewage treatment plant	36 µg/l

## 8.2. Exposure controls

### Personal protection equipment

**Personal protective equipment:**

EN 374.

**Personal protective equipment symbol(s):**



### Eye and face protection

**Eye protection:**

Safety glasses (EN 166)

Eye protection			
Type	Field of application	Characteristics	Standard
			EN 166

### Skin protection

**Skin and body protection:**

Protective clothing

Skin and body protection	
Type	Standard
Protective clothing	

**Hand protection:**

Protective gloves against chemicals (EN 374). Nitrile rubber (NBR) /

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Molecular mass	: 36,461 g/mol
Odour	: strong.
Odour threshold	: Not available
Melting point	: -114,22 °C
Freezing point	: Not available
Boiling point	: 105,58 °C
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 1,1 25°

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Viscosity, kinematic	: Not available
Solubility	: Very soluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 0,027 kPa 20%
Vapour pressure at 50 °C	: Not available
Density	: 1,0959 g/m³ 25°
Relative density	: Not available
Relative vapour density at 20 °C	: 1,098
Particle characteristics	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable in use and storage conditions as recommended in item 7.

### 10.2. Chemical stability

No additional information available

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Moisture. High temperature.

### 10.5. Incompatible materials

Bases. Acids. alkali metals. Oxidizing agent. Stow "away from" ammonium compounds. Halogenated compounds.

### 10.6. Hazardous decomposition products

Attacks many metals forming flammable/explosive gas (HYDROGEN!).

## SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Toxic if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes severe skin burns. pH: 1,1 25°
Serious eye damage/irritation	: Assumed to cause serious eye damage pH: 1,1 25°
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### 11.2. Information on other hazards

#### Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: Not applicable
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### SECTION 12: Ecological information

#### 12.1. Toxicity

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

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

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EC50 - Daphnia [1]	100 – 330 ppm
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EC50 - Other aquatic organisms [1]	240 mg/l
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#### 12.2. Persistence and degradability

#### Hydrochloric acid 34-37% TGR for trace analysis (ppb)

Persistence and degradability	Rapidly degradable
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#### hydrogen chloride (7647-01-0)

Persistence and degradability	Rapidly degradable
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#### WATER (7732-18-5)

Persistence and degradability	Rapidly degradable
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#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

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PBT: not relevant – no registration required

#### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : Not applicable.

#### 12.7. Other adverse effects

Other adverse effects : Do not discharge into drains or rivers.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Must follow special treatment according to local regulation.

### SECTION 14: Transport information

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

#### 14.1. UN number or ID number

UN-No. (ADR)	: UN 1789
UN-No. (IMDG)	: UN 1789
UN-No. (IATA)	: UN 1789

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UN-No. (ADN) : UN 1789  
UN-No. (RID) : UN 1789

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : HYDROCHLORIC ACID  
Proper Shipping Name (IMDG) : HYDROCHLORIC ACID  
Proper Shipping Name (IATA) : Hydrochloric acid  
Proper Shipping Name (ADN) : HYDROCHLORIC ACID  
Proper Shipping Name (RID) : HYDROCHLORIC ACID  
Transport document description (ADR) (ADR) : UN 1789 HYDROCHLORIC ACID, 8, II, (E)  
Transport document description (IMDG) : UN 1789 HYDROCHLORIC ACID, 8, II  
Transport document description (IATA) : UN 1789 Hydrochloric acid, 8, II  
Transport document description (ADN) : UN 1789 HYDROCHLORIC ACID, 8, II  
Transport document description (RID) : UN 1789 HYDROCHLORIC ACID, 8, II

### 14.3. Transport hazard class(es)

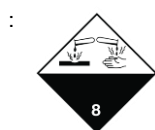
#### ADR

Transport hazard class(es) (ADR) : 8  
Danger labels (ADR) : 8



#### IMDG

Transport hazard class(es) (IMDG) : 8  
Danger labels (IMDG) : 8



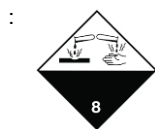
#### IATA

Transport hazard class(es) (IATA) : 8  
Danger labels (IATA) : 8



#### ADN

Transport hazard class(es) (ADN) : 8  
Danger labels (ADN) : 8



#### RID

Transport hazard class(es) (RID) : 8  
Danger labels (RID) : 8



### 14.4. Packing group

Packing group (ADR) : II

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Packing group (IMDG)	: II
Packing group (IATA)	: II
Packing group (ADN)	: II
Packing group (RID)	: II

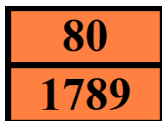
### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Other information	: No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR)	: C1
Special provisions (ADR)	: 520
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02
Mixed packing provisions (ADR)	: MP15
Portable tank and bulk container instructions (ADR)	: T8
Portable tank and bulk container special provisions (ADR)	: TP2
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Hazard identification number (Kemler No.)	: 80
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 2R

#### Transport by sea

Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
IBC special provisions (IMDG)	: B20
Tank instructions (IMDG)	: T8
Tank special provisions (IMDG)	: TP2
Stowage category (IMDG)	: C
Segregation (IMDG)	: SGG1A, SG36, SG49
Properties and observations (IMDG)	: Colourless liquid. An aqueous solution of the gas hydrogen chloride. Highly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.

#### Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3
ERG code (IATA)	: 8L

#### Inland waterway transport

Classification code (ADN)	: C1
Special provisions (ADN)	: 520



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Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

### Rail transport

Classification code (RID)	: C1
Special provisions (RID)	: 520
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T8
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L4BN
Special provisions for RID tanks (RID)	: TU42
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 80

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### EU-Regulations

##### REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

##### REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

##### REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

##### PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

##### 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.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

##### Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

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### National regulations

#### France

Occupational diseases	
Code	Description
RG 66	Occupational rhinitis and asthma

#### Germany

VOC ordinance (ChemVOCFarbV)	:
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 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	: None of the components are listed

#### Denmark

Danish National Regulations	: Young people below the age of 18 years are not allowed to use the product
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### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Press. Gas	Gases under pressure
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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