

**Safety data sheet**  
according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

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

- **1.1 Product identifier**
- **Trade name: Hydrochloric acid 9.0 – 11.0 %**
- **Article number:** 839
- **CAS Number:** 7647-01-0
- **Registration number** 01-2119484862-27-XXXX
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Commercial use  
Reagent for analysis  
Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Th. Geyer GmbH & Co. KG  
Dornierstr. 4 – 6  
D-71272 Renningen  
  
Tel.: +49(0)7159-1637-0, Fax:+49 (0)7159/18417  
www.thgeyer.de  
sicherheitsdatenblaetter@thgeyer.de
- **Further information obtainable from:** Product management department
- **1.4 Emergency telephone number:**  
National Poisons Information Service  
(Birmingham Centre)  
City Hospital  
Dudley Road  
Birmingham B18 7QH  
Tel.:Emergency: (00 44) 87 06 00 62 66

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

Trade name: Hydrochloric acid 9.0 – 11.0 %

(Contd. of page 1)

### Hazard pictograms



GHS05 GHS07

### Signal word Warning

#### Hazard statements

- H290 May be corrosive to metals.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

#### Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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 [or 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.
- P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.
- P390 Absorb spillage to prevent material damage.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 2.3 Other hazards

#### Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

- Description: Mixture of substances listed below with nonhazardous additions.

#### Dangerous components:

CAS: 7647-01-0	Hydrochloric acid	9–11%
EINECS: 231-595-7	Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318	
Reg.nr.: 01-2119484862-27-XXXX	STOT SE 3, H335	

- Additional information: For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

- First aider needs to protect himself.
- Immediately remove any clothing soiled by the product.

#### After inhalation:

- Remove person from danger area.
- In case of pulmonary irritation, administer glucocorticoid metered dose inhaler
- Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- In case of unconsciousness place patient stably in side position for transportation.

#### After skin contact:

- Flush contaminated skin with soap and plenty of water.

(Contd. on page 3)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

**Trade name: Hydrochloric acid 9.0 – 11.0 %**

(Contd. of page 2)

After prolonged contact or any signs of skin changes (redness or other signs of inflammation) seek medical attention.

take care of a Possibility of inhalation at the same time

· **After eye contact:**

Protect unharmed eye.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Call a doctor immediately.

A person vomiting while laying on their back should be turned onto their side.

· **Information for doctor:** Please observe safety data sheet/label.

· **4.2 Most important symptoms and effects, both acute and delayed**

Coughing

Breathing difficulty

Gastric or intestinal disorders

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

### SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet.

· **5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Hydrogen chloride (HCl)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear fully protective suit.

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

· **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Prevent fire extinguishing water from contaminating surface water or the ground water system.

### SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Evacuate the danger area.

Ensure adequate ventilation.

Avoid contact with eyes and skin.

Wear protective equipment. Keep unprotected persons away.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Particular danger of slipping on leaked/spilled product.

· **6.2 Environmental precautions:**

Dilute with plenty of water.

Suppress gases/fumes/haze with water spray.

Do not allow to enter sewers/surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 4)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

**Trade name: Hydrochloric acid 9.0 – 11.0 %**

See Section 13 for disposal information.

(Contd. of page 3)

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.

Store in cool, dry place in tightly closed receptacles.

Apply the general protection and hygiene measures for the handling with chemicals.

- **Information about fire - and explosion protection:** No special measures required.

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

##### Storage:

##### Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Provide acid-resistant floor.

##### Information about storage in one common storage facility:

Store away from metals.

Do not store together with alkalis (caustic solutions).

##### Further information about storage conditions:

Store receptacle in a well ventilated area.

Protect from heat and direct sunlight.

Store in cool, dry conditions in well sealed receptacles.

##### Storage class: 12

- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

- **Additional information about design of technical facilities:** No further data; see item 7.

#### Ingredients with limit values that require monitoring at the workplace:

**CAS: 7647-01-0 Hydrochloric acid**

WEL	Short-term value: 8 mg/m <sup>3</sup> , 5 ppm Long-term value: 2 mg/m <sup>3</sup> , 1 ppm (gas and aerosol mists)
-----	--

- **Additional information:** The lists valid during the making were used as basis.

#### 8.2 Exposure controls

##### Personal protective equipment:

##### General protective and hygienic measures:

Wash hands before breaks and at the end of work.

The usual precautionary measures are to be adhered to when handling chemicals.

- **Respiratory protection:** Not necessary if room is well-ventilated.

##### Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

##### Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

**Trade name: Hydrochloric acid 9.0 – 11.0 %**

(Contd. of page 4)

**· Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**· Eye protection:**


Tightly sealed goggles

**· Body protection:**


Protective work clothing (e. g. safety shoes EN ISO 20345, long-sleeved protective working garments).

### SECTION 9: Physical and chemical properties

**· 9.1 Information on basic physical and chemical properties**
**· General Information**
**· Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless to slightly yellow
<b>Odour:</b>	Characteristic

**· pH-value at 20 °C:** <1

**· Change in condition**

<b>Melting point/freezing point:</b>	-17 °C
<b>Initial boiling point and boiling range:</b>	~90 °C (CAS: 7647-01-0 Hydrochloric acid)

**· Flash point:** Not applicable.

**· Flammability (solid, gas):** Not applicable.

**· Decomposition temperature:** Not determined.

**· Auto-ignition temperature:** Product is not selfigniting.

**· Explosive properties:** Product does not present an explosion hazard.

**· Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

**· Vapour pressure at 20 °C:** 12 hPa

**· Density at 20 °C:** 1.05 g/cm<sup>3</sup>  
Not determined.

**· Relative density** Not determined.

**· Vapour density** Not determined.

**· Evaporation rate** Not determined.

**· Solubility in / Miscibility with water:**

Fully miscible.

**· Partition coefficient: n-octanol/water:** Not determined.

**· Viscosity:**

<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.

**· Solvent content:**
**VOC (EC)** 0.00 %

(Contd. on page 6)

E

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

Trade name: Hydrochloric acid 9.0 – 11.0 %

(Contd. of page 5)

### · 9.2 Other information

No further relevant information available.

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** Stable with proper storage and handling.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause respiratory irritation.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

(Contd. on page 7)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

Trade name: Hydrochloric acid 9.0 – 11.0 %

(Contd. of page 6)

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Observe local (country-specific) regulations and laws

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Chemicals must be disposed of in compliance with the respective national regulations.

#### European waste catalogue

HP8	Corrosive
-----	-----------

#### Uncleaned packaging:

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

#### 14.1 UN-Number

ADR, IMDG, IATA UN1789

#### 14.2 UN proper shipping name

ADR 1789 HYDROCHLORIC ACID solution  
IMDG, IATA HYDROCHLORIC ACID solution

#### 14.3 Transport hazard class(es)

##### ADR



Class 8 (C1) Corrosive substances.  
Label 8

##### IMDG, IATA



Class 8 Corrosive substances.  
Label 8

#### 14.4 Packing group

ADR, IMDG, IATA II

#### 14.5 Environmental hazards:

Not applicable.

#### 14.6 Special precautions for user

Warning: Corrosive substances.

#### Hazard identification number (Kemler code):

80

#### EMS Number:

F-A,S-B

#### Segregation groups

Acids

#### Stowage Category

C

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

(Contd. on page 8)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

Trade name: Hydrochloric acid 9.0 – 11.0 %

(Contd. of page 7)

· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>Transport category</b>	2
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>UN "Model Regulation":</b>	UN 1789 HYDROCHLORIC ACID SOLUTION, 8, II

### SECTION 15: Regulatory information

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

##### · Directive 2012/18/EU

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

##### · **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

##### · **REGULATION (EU) 2019/1148**

##### · **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

##### · **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

##### · **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

##### · **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

##### · **National regulations:**

##### · **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Application, use and handling of our products take place out of our control and are solely your responsibility.

##### · **Relevant phrases**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

(Contd. on page 9)

# Safety data sheet

## according to 1907/2006/EC, Article 31

revised on: 15.12.2021

Version number 2

Creation Date: 09.08.2019

**Trade name: Hydrochloric acid 9.0 – 11.0 %**

(Contd. of page 8)

H318 Causes serious eye damage.  
H335 May cause respiratory irritation.

· **Department issuing SDS:** Product management

· **Contact:** Product management

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Met. Corr. 1: Corrosive to metals – Category 1

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· **\* Data compared to the previous version altered.**

E