

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

Printing date 05.07.2019

Revision: 05.07.2019

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

- **1.1 Product identifier**
- **Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur
- **Article number:** AC0741
- **Registration number**  
A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation:** Laboratory reagent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Scharlab, S.L.  
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa  
08181 Sentmenat (Barcelona) SPAIN  
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65  
email: scharlab@scharlab.com  
Internet Web Site: www.scharlab.com
- **Regional representation:**  
Scharlab, S.L.  
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa  
08181 Sentmenat (Barcelona) SPAIN  
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65  
email: scharlab@scharlab.com  
Internet Web Site: www.scharlab.com
- **Further information obtainable from:** technical department
- **1.4 Emergency telephone number:**  
Please contact the regional Scharlab distributor/dealer in your country  
During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

**SECTION 2: Hazards identification**

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



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

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

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 1)

- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger

- **Hazard-determining components of labelling:**

hydrogen chloride

- **Hazard statements**

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

- **Precautionary statements**

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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 on this label).

P405 Store locked up.

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 Chemical characterisation: Mixtures**

- **Description:** Aqueous solution

- **Dangerous components:**

CAS: 7647-01-0	hydrogen chloride	25-50%
----------------	-------------------	--------

EINECS: 231-595-7	⚠ Skin Corr. 1B, H314; ⚠ STOT SE 3, H335	
-------------------	--	--

Reg.nr.: 01-2119484862-27-XXXX	
--------------------------------	--

- **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:**

Seek medical treatment.

Immediately remove any clothing soiled by the product.

- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:**

Seek immediate medical advice.

Immediately remove contaminated clothing.

Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:**

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

- **After swallowing:**

Rinse mouth and drink water (2 glasses) if the affected is conscious. Seek medical help immediately.

(Contd. on page 3)

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

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 2)

Do not induce vomiting. Risk of perforation.

Do not attempt to neutralize.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

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

It can lead to irritation and corrosion, cough, respiratory insufficiency, effects on the cardiovascular system and risk of blindness.

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

Do not induce vomiting. Risk of perforation.

It is highly recommended that near jobs there emergency showers and eyewash.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:**

Suitable extinguishing media.

Use fire extinguishing methods suitable to surrounding conditions.

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture** - The substance is not combustible.**5.3 Advice for firefighters****Protective equipment:**

Stay in danger area only with artificial systems and independent breathing apparatus.

Protection of the skin, keep a safety distance and wear suitable protective clothing.

Wear self-contained respiratory protective device.

Wear fully protective suit.

**Additional information**

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

Collect contaminated fire fighting water separately. It must not enter the sewage system.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions:**

Dilute with plenty of water.

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).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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

(Contd. on page 4)

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

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 3)

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
Methods for measuring the atmosphere of the workplace must meet the requirements of DIN EN 482 and DIN EN 689.  
**7647-01-0 hydrogen chloride**  
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:**  
For handling the product should be mandatory use of personal protective equipment.  
It is advisable the existence of protective screens splash in points using the product.  
Local exhaust recommended to keep dust emissions or vapors below the lowest permissible exposure level. Regular checks of working environment.  
Do not eat, drink, smoke or sniff while working.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
Suitable respiratory protective device recommended.  
Recommended filter: Filter type E-(P2)  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**  
Acid resistant gloves



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**  
PVC gloves  
- In case of submersion:

Nitrile rubber  
Glove thickness: 0,11mm

(Contd. on page 5)



## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 4)

Breakthrough time:&gt; 480 min

- In case of splashes:

Natural latex

Glove thickness: 0.6 mm

Breakthrough time:&gt; 120 min

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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.

- **Not suitable are gloves made of the following materials:**

Leather gloves

Strong material gloves

- **Eye protection:**

Face shield or chemical goggles, biker type or diver, tight fitting with plastic glasses or a face shield. It is generally known that contact lenses should not be used when working with chemicals because they can contribute to the severity of possible eye damage.



Tightly sealed goggles

- **Body protection:**

Acid resistant protective clothing

Protective clothing must have passed the relevant tests by the manufacturer. Clothing should be approved as a type 5 and / or 6.

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:**

Fluid

- **Colour:**

Colourless

- **Odour:**

Pungent

- **Odour threshold:**

Not determined.

- **pH-value:**

Not determined.

- **Change in condition**

- **Melting point/freezing point:**

Undetermined.

- **Initial boiling point and boiling range:** 100 °C

- **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:**

- **Lower:**

Not determined.

- **Upper:**

Not determined.

(Contd. on page 6)

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

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 5)

- **Vapour pressure at 20 °C:** 23 hPa
- **Density at 20 °C:** 1.19 g/cm<sup>3</sup>
- **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:**
  - Dynamic at 20 °C:** 2.3 mPas
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 0.0 %
  - Water:** 63.0 %
- **9.2 Other information:** No further relevant information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

It can be corrosive for metals.

Stable under normal conditions. If used according to the regulation no decomposition occurs.

**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

Heating. In contact with heat can come off gaseous hydrochloric acid.

**10.3 Possibility of hazardous reactions**

- Exothermic reaction with:

Amines, potassium permanganate, halogenated, semimetal oxides, semimetal hydrides, aldehydes.

Danger of ignition or formation of inflammable gases or vapors with:

Carbides, lithium silicide, Fluorine

- Hazardous gases or vapors with:

Aluminum, hydrides, formaldehyde, metals, strong alkalis, sulfides.

- Risk of explosion with:

Alkali metals, concentrated sulfuric acid.

**10.4 Conditions to avoid** Heat, open flames and sparks**10.5 Incompatible materials:**

- Metals, metal alloys.

- Gives off hydrogen by reaction with metals.

- It can be corrosive for metals.

**10.6 Hazardous decomposition products:**

Hydrogen chloride (HCl)

Irritant gases/vapours

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

• **Acute toxicity** Based on available data, the classification criteria are not met.

(Contd. on page 7)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 6)

• **LD/LC50 values relevant for classification:**

**7647-01-0 hydrogen chloride**

Oral LD50 900 mg/kg (rabbit)

• **Primary irritant effect:**

• **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

• **Serious eye damage/irritation**

Causes serious eye damage.

• **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

• **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.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

• **12.5 Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

• **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

• **13.1 Waste treatment methods**

• **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

• **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

(Contd. on page 8)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 7)

- **14.3 Transport hazard class(es)**

- **ADR, IMDG, IATA**



- |  |   |
|--|---|
| • <b>Class</b>   | 8 Corrosive substances.                   |
| • <b>Label</b>   | 8   |
| • <b>14.4 Packing group</b>  |   |
| • <b>ADR, IMDG, IATA</b>   | II  |
| • <b>14.5 Environmental hazards:</b>   |   |
| • <b>Marine pollutant:</b>   | No  |
| • <b>14.6 Special precautions for user</b>                                       | Warning: Corrosive substances.            |
| • <b>Danger code (Kemler):</b>   | 80  |
| • <b>EMS Number:</b>   | F-A,S-B                                   |
| • <b>Segregation groups</b>  | Acids                                     |
| • <b>Stowage Category</b>  | E   |
| • <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable.                           |
| • <b>Transport/Additional information:</b>                                       |   |
| -----  |   |
| • <b>ADR</b>   |   |
| • <b>Limited quantities (LQ)</b>   | 1L  |
| • <b>Transport category</b>  | 2   |
| • <b>Tunnel restriction code</b>   | E   |
| • <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
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has 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.

- **Relevant phrases**  
H314 Causes severe skin burns and eye damage.  
H335 May cause respiratory irritation.
- **Classification according to Regulation (EC) No 1272/2008**  
The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
- **Department issuing SDS:** product safety department
- **Contact:** msds@scharlab.com
- **Abbreviations and acronyms:**  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organisation  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

(Contd. on page 9)



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

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 8)

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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

(Contd. on page 10)

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

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 9)

**Annex: Exposure scenario 1****1 - Short title of the exposure scenario**

Exposure scenario: Hydrochloric acid, 37%

Industrial use

**Sector of Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

**Product category** PC21 Laboratory chemicals**Process category** PROC15 Use as laboratory reagent**Environmental release category**

ERC2 Formulation into mixture

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

**Description of the activities / processes covered in the Exposure Scenario**

See section 1 of the annex to the Safety Data Sheet.

**2 - Conditions of use****Duration and frequency**

Emission days (days/year): 360

5 workdays/week.

**Worker** Permanent use with exposure up to 8 hrs every work day of the week.**Environment**

No direct exposure.

The product may not be released into the aquatic environment without pre-treatment (biological purification plant).

The product may not be released into the environment without control.

**Physical parameters**

The substance is rapidly hydrolyzed

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.

**Physical state** Fluid**Concentration of the substance in the mixture**

The substance is main component.

It covers a percentage of substance in the product up to 40 %

**Other operational conditions** Observe the general safety regulations when handling chemicals.**Other operational conditions affecting environmental exposure** No special measures required.**Other operational conditions affecting worker exposure**

Avoid contact with eyes.

Avoid contact with the skin.

**Other operational conditions affecting consumer exposure** No special measures required.**Risk management measures****Worker protection****Organisational protective measures**

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Handle in a fume cupboard or under extract ventilation

Provide emergency eye wash station and mark its location clearly.

Washing facilities / Water for cleaning eyes and skin should be available.

Provide Internal Plant Instruction.

Deploy only trained chemical workers.

Avoid contact with drinking water and / or food during application.

Keep good industrial hygiene.

**Technical protective measures**

Ensure that suitable extractors are available on processing machines

**Personal protective measures**

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

(Contd. on page 11)

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

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 10)

Avoid contact with the eyes.

Tightly sealed goggles

Suitable respiratory protective device recommended.

Recommended filter: Filter type E-(P2)

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Acid resistant gloves

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

Wear suitable gloves (tested to EN374)

- **Measures for consumer protection** Ensure adequate labelling.

- **Environmental protection measures**

Avoid release to the environment. Obtain special instructions / refer to Safety Data Sheet.

- **Air** The exhaust air is lead to a scrubber

- **Water**

Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.

- **Soil** Prevent contamination of soil.

- **Notes** In case of unintended release of the product: See section 6 of the Safety Data Sheet.

- **Disposal measures**

Ensure that all wastewater is collected and treated in a wastewater treatment plant.

Must not be disposed of with household waste. Do not allow to reach sewage system.

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

- **Disposal procedures**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Waste type** Partially emptied and uncleaned packaging

- **3 - Exposure estimation**

- **Worker (inhalation)**

RCR: 0.38

The exposure estimation was carried out in accordance with ECETOC TRA.

Detailed information on the exposure estimation can be found at <http://www.ecetoc.org/tra>.

- **4 - Guidance for downstream users**

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

No further relevant information available.

(Contd. on page 12)

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 11)

### Annex: Exposure scenario 2

- **1 - Short title of the exposure scenario** Laboratory use
- **Sector of Use**  
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Product category** PC21 Laboratory chemicals
- **Process category** PROC15 Use as laboratory reagent
- **Environmental release category**  
ERC2 Formulation into mixture  
ERC6a Use of intermediate  
ERC6b Use of reactive processing aid at industrial site (no inclusion into or onto article)
- **Description of the activities / processes covered in the Exposure Scenario**  
See section 1 of the annex to the Safety Data Sheet.
- **2 - Conditions of use**
- **Duration and frequency**  
Emission days (days/year): 360  
5 workdays/week.
- **Worker** Permanent use with exposure up to 8 hrs every work day of the week.
- **Environment**  
No direct exposure.  
The product may not be released into the aquatic environment without pre-treatment (biological purification plant).  
The product may not be released into the environment without control.
- **Physical parameters**  
The substance is rapidly hydrolyzed  
The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.
- **Physical state** Fluid
- **Concentration of the substance in the mixture**  
The substance is main component.  
It covers a percentage of substance in the product up to 40 %
- **Other operational conditions** Observe the general safety regulations when handling chemicals.
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting worker exposure**  
Avoid contact with eyes.  
Avoid contact with the skin.
- **Other operational conditions affecting consumer exposure** No special measures required.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures**  
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.  
Handle in a fume cupboard or under extract ventilation  
Provide emergency eye wash station and mark its location clearly.  
Washing facilities / Water for cleaning eyes and skin should be available.  
Provide Internal Plant Instruction.  
Deploy only trained chemical workers.  
Avoid contact with drinking water and / or food during application.  
Keep good industrial hygiene.
- **Technical protective measures**  
Ensure that suitable extractors are available on processing machines
- **Personal protective measures**  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the skin.

(Contd. on page 13)



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

Printing date 05.07.2019

Revision: 05.07.2019

**Trade name:** Hydrochloric acid, 37%, reagent grade, ACS, ISO, Reag. Ph Eur

(Contd. of page 12)

Avoid contact with the eyes.

Tightly sealed goggles

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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

Wear suitable gloves (tested to EN374)

• **Measures for consumer protection** Ensure adequate labelling.• **Environmental protection measures**

Avoid release to the environment. Obtain special instructions / refer to Safety Data Sheet.

• **Air** The exhaust air is lead to a scrubber• **Water**

Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.

• **Soil** Prevent contamination of soil.• **Notes** In case of unintended release of the product: See section 6 of the Safety Data Sheet.• **Disposal measures**

Ensure that all wastewater is collected and treated in a wastewater treatment plant.

Must not be disposed of with household waste. Do not allow to reach sewage system.

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

• **Disposal procedures**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

• **Waste type** Partially emptied and uncleaned packaging• **3 - Exposure estimation**• **Worker (inhalation)**

RCR: 0.76

The exposure estimation was carried out in accordance with ECETOC TRA.

Detailed information on the exposure estimation can be found at <http://www.ecetoc.org/tra>.• **4 - Guidance for downstream users**

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

No further relevant information available.