

**Safety data sheet**  
**according to 1907/2006/EC, Article 31 Commission**  
**regulation (EU) 2020/878**

Printing date 18.05.2023

Version number 6.0 (replaces version 5.0)

Revision: 18.05.2023

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

### 1.1 Product identifier

• **Trade name:** Hydrochloric acid, 37%, for analysis, ExpertQ®, ACS, ISO, Reag. Ph Eur

• **Article number:** AC0741

### Registration number

A registration number is not available for this substance because the substance or its uses are exempted from registration, the annual tonnage does not require registration or the registration is planned for a later date.

### 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:

Toxicological Information National Institute of Toxicology and Forensic Sciences: + 34 91 562 04 20. The information will be provided (24h/365 days)  
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**



corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



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 GB CLP regulation.

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## 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

P260 Do not breathe dusts or mists.

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

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 Mixtures

**Description:** Aqueous solution

### Dangerous components:

CAS: 7647-01-0

EINECS: 231-595-7

Reg.nr.: 01-2119484862-27-

XXXX

hydrogen chloride

25-50%

⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; STOT SE 3, H335

Specific concentration limits:

Skin Corr. 1B; H314: C ≥ 25%

Skin Irrit. 2; H315: 10 % ≤ C &lt; 25 %

Eye Irrit. 2; H319: 10 % ≤ C &lt; 25 %

STOT SE 3; H335: C ≥ 10 %

**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.

Do not leave affected persons unattended.

Take affected persons out of danger area and lay down.

Position and transport stably in side position.

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**• After inhalation:**

Take affected persons into fresh air and keep quiet.

In case of unconsciousness place patient stably in side position for transportation.

In severe cases such as cardiorespiratory arrest, artificial respiration techniques such as mouth-to-mouth resuscitation, cardiac massage, oxygen supply, etc. will be applied.

Call a doctor immediately.

**• After skin contact:**

Seek immediate medical advice.

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.

Contact with the eyes causes painful burns that can lead to permanent visual defects or blindness.

**• After swallowing:**

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

Do not induce vomiting, danger of perforation.

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

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

May cause irritation and corrosion, coughing, respiratory failure, 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.

Treat symptomatically.

It is highly recommended that emergency showers and eyewash facilities be provided in the vicinity of workplaces.

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

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 non-combustible.

- Possibility of formation of hazardous vapours due to surrounding fire.

- Fire may cause fumes of: Hydrogen chloride gas.

**• 5.3 Advice for firefighters****• Protective equipment:**

Remaining in the risk area only with artificial respiration systems independent of the environment.

Skin protection by observing a safe distance and wearing appropriate 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**

Ensure adequate ventilation

Eliminate all sources of ignition.

Avoid contact with skin, eyes and clothing.

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

Wear protective equipment. Keep unprotected persons away.

• **6.2 Environmental precautions:**

Do not allow to penetrate the ground/soil.

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:**

Allow to solidify. Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

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

Use neutralising agent.

Dispose contaminated material as waste according to section 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**

Keep receptacles tightly sealed.

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Do not eat, drink or smoke during use.

Wash hands after handling.

• **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 in a cool, dry and well-ventilated place.

Store only in unopened original receptacles.

• **Information about storage in one common storage facility:** Store away from foodstuffs.

• **Further information about storage conditions:**

Keep container tightly sealed.

See product label for storage temperature.

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

## SECTION 8: Exposure controls/personal protection

• **8.1 Control parameters**

• **Ingredients with limit values that require monitoring at the workplace:**

The methods for measuring the workplace atmosphere 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)

• **DNELs**

DNEL worker, acute. Local effects: Inhalative - 15 mg/m<sup>3</sup>

DNEL worker, cronic. Local effects: Inhalative - 8 mg/m<sup>3</sup>

DNEL consumer, acute. Local effects: Inhalative - 15 mg/m<sup>3</sup>

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DNEL consumer, prolonged. Local effects: Inhalative - 8 mg/m<sup>3</sup>

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

- **8.2 Exposure controls**

- **Appropriate engineering controls** No further data; see section 7.

- **Individual protection measures, such as personal protective equipment**

- **General protective and hygienic measures:**

The use of personal protective equipment should be mandatory for handling the product.

Protective splash screens are recommended at points of use of the product.

Local exhaust recommended to keep dust or vapour emissions below the lowest permissible exposure level. Periodic monitoring of the 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 type: 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.

- **Hand protection**

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

Penetration time: >480 min

- In case of possible splashes:

Natural latex

Thickness of glove: 0,6mm

Penetration time: >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

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• **Eye/face protection**

Face shield or chemical goggles, biker or diver type, tight fitting with plastic lenses, or a face shield. It is generally recognised that contact lenses should not be worn when working with chemicals, because such lenses 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. It must be type 5 and/ or 6 approved clothing.

## SECTION 9: Physical and chemical properties

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

• **General Information**

• **Physical state**

Fluid

• **Colour:**

Colourless

• **Odour:**

Pungent

• **Odour threshold:**

Not determined.

• **Melting point/freezing point:**

Undetermined.

• **Boiling point or initial boiling point and boiling range**

85-108 °C

• **Flammability**

Not applicable.

• **Lower and upper explosion limit**

• **Lower:**

Not determined.

• **Upper:**

Not determined.

• **Flash point:**

Not applicable.

• **Decomposition temperature:**

Not determined.

• **pH at 20 °C**

&lt;1

• **Viscosity:**

• **Kinematic viscosity**

Not determined.

• **Dynamic at 20 °C:**

2.3 mPas

• **Solubility**

• **water:**

Fully miscible.

• **Partition coefficient n-octanol/water (log value)**

Not determined.

• **Vapour pressure at 20 °C:**

23 hPa

• **Density and/or relative density**

• **Density at 20 °C:**

1.19 g/cm<sup>3</sup>

• **Relative density**

Not determined.

• **Vapour density**

Not determined.

• **9.2 Other information**

• **Appearance:**

• **Form:**

Fluid

• **Important information on protection of health and environment, and on safety.**

• **Ignition temperature:**

Product is not selfigniting.

• **Explosive properties:**

Product does not present an explosion hazard.

• **Solvent content:**

• **Water:**

63.0 %

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- **Change in condition**
- **Evaporation rate** Not determined.
- **Information with regard to physical hazard classes**
- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

May be corrosive to metals.

Stable under normal conditions. No decomposition if used according to regulations.

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided:

Heating. Gaseous hydrochloric acid may be released on contact with heat.

### 10.3 Possibility of hazardous reactions

- Exothermic reaction with:

Amines, potassium permanganate, halogenates, oxides of semimetals, hydrides of semimetals, aldehydes.

- Danger of ignition or formation of combustible gases or vapours with:

Carbides, Lithium silicide, Fluorine.

- Release of dangerous gases or vapours with: Aluminium, hydrides, formaldehyde:

Aluminium, hydrides, formaldehyde, metals, strong solutions of alkali hydroxides, sulphides.

- Risk of explosion with:

Alkali metals, concentrated sulphuric acid.

### 10.4 Conditions to avoid Heat, flame and sparks

### 10.5 Incompatible materials:

- Metals, metal alloys.

- Gives off hydrogen in reaction with metals.

- Corrosive in contact with metals

Oxidising agents.

Basis

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**10.6 Hazardous decomposition products:**

Hydrogen chloride (HCl)  
Irritant gases/vapours

**SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**

**7647-01-0 hydrogen chloride**

Oral LD50 900 mg/kg (rabbit)

- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Causes serious eye damage.
- **STOT-single exposure** May cause respiratory irritation.

**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

**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.
- **12.5 Results of PBT and vPvB assessment**

• **PBT:** Not applicable.• **vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

**12.7 Other adverse effects****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.

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.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation**

Must be specially treated adhering to official regulations.

Can be reused after reprocessing.

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

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- **Uncleaned packaging:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.  
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

- **14.1 UN number or ID number**  
UN1789
  - **ADR, IMDG, IATA**
  - **14.2 UN proper shipping name**  
1789 HYDROCHLORIC ACID
  - **ADR**  
HYDROCHLORIC ACID
  - **IMDG, IATA**
  - **14.3 Transport hazard class(es)**
  - **ADR, IMDG, IATA**
- 
- **Class**  
8 Corrosive substances.
  - **Label**  
8
  - **14.4 Packing group**  
II
  - **ADR, IMDG, IATA**
  - **14.5 Environmental hazards:**
  - **Marine pollutant:**  
No
  - **14.6 Special precautions for user**  
Warning: Corrosive substances.
  - **Hazard identification number (Kemler code):**  
80
  - **EMS Number:**  
F-A,S-B
  - **Segregation groups**  
(SGG1) Acids
  - **Stowage Category**  
E
  - **14.7 Maritime transport in bulk according to IMO instruments**  
Not applicable.
  - **Transport/Additional information:**
- 
- **ADR**
  - **Limited quantities (LQ)**  
1L
  - **Transport category**  
2
  - **Tunnel restriction code**  
E
  - **UN "Model Regulation":**  
UN 1789 HYDROCHLORIC ACID, 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 N/A**
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

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**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**

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.

**• 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 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)  
DNEL: Derived No-Effect Level (UK REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 4: Acute toxicity – Category 4  
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

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**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**

Days of issuance (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 hydrolysed

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.

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 exhaust 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 hood or under exhaust extraction

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.

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Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

Suitable respiratory protective device recommended.

Recommended filter type: 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 protective gloves tested in accordance with 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 shall be ducted 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.

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**Safety data sheet**  
**according to 1907/2006/EC, Article 31 Commission**  
**regulation (EU) 2020/878**

Printing date 18.05.2023

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**Trade name:** Hydrochloric acid, 37%, for analysis, ExpertQ®, ACS, ISO, Reag. Ph Eur

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**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**  
Days of issuance (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 hydrolysed  
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.  
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 exhaust 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 hood or under exhaust extraction  
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.

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Avoid contact with the skin.

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 protective gloves tested in accordance with 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 shall be ducted 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.