

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

Printing date 25.05.2023

Version number 9.0 (replaces version 8.0)

Revision: 25.05.2023

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

1.1 Product identifier

• **Trade name:** Sulfuric acid, 95 - 98%, for analysis, ExpertQ®, ACS, ISO, max. 0,0000005% Hg

• **Article number:** AC2097

• **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

• **Sector of Use** SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

• **Process category**

PROC5 Mixing or blending in batch processes

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC15 Use as laboratory reagent

• **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

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

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

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

Signal word

Danger

Hazard-determining components of labelling:

sulphuric acid

Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

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: 7664-93-9

EINECS: 231-639-5

Reg.nr.: 01-2119458838-20-

XXXX

sulphuric acid

50-100%

Met. Corr.1, H290; Skin Corr. 1A, H314

Specific concentration limits:

Skin Corr. 1A; H314: C ≥15 %

Skin Irrit. 2; H315: 5 % ≤ C < 15 %

Eye Irrit. 2; H319: 5 % ≤ C < 15 %

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: Immediately remove any clothing soiled by the product.

After inhalation:

Take affected persons into fresh air and keep quiet.

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

In case of asphyxia, apply oxygen therapy.

In case of respiratory arrest, administer artificial respiration.

Call a doctor immediately.

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- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Immediately remove all contaminated clothing.
Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.
Seek immediate medical advice.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Protect unharmed eye.
Contact with the eyes causes painful burns that can lead to permanent visual defects or blindness.
Call a doctor immediately.
- **After swallowing:**
Drink plenty of water and provide fresh air. Call for a doctor immediately.
Do not induce vomiting, danger of perforation.
Never give anything by mouth to an unconscious person.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Foam
Carbon dioxide
Extinguishing powder. Do not use water.
ABC powder
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Fire can cause the evolution of:
Sulfoxides
Prevent any contact with combustible substances.
Do not use water as an extinguishing medium
- **5.3 Advice for firefighters**
- **Protective equipment:**
Respiratory protection and full chemical protective clothing must be provided for extinguishing work.
Do not inhale explosion gases or combustion gases.
Cool exposed containers by water spray or water mist.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Ensure adequate ventilation
Evacuate and restrict access.
Avoid contact with skin, eyes and clothing.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.

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- **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 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**
Store in cool, dry place in tightly closed receptacles.
Avoid breathing mist / vapours / aerosol.
Wear personal protective equipment.
Wear tight-fitting chemical goggles and/or face shield.
Avoid contact with eyes and skin.
When diluting always pour product into water and not vice versa.
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:**
Provide acid-resistant floor.
Store in a cool, dry and well-ventilated place.
Store only in unopened original receptacles.
Use only receptacles specifically permitted for this substance/product.
- **Information about storage in one common storage facility:**
Store away from water.
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:**

7664-93-9 sulphuric acid
WEL Long-term value: 0.05* mg/m³
*mist: defined as thoracic fraction
- **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:**
Keep away from foodstuffs, beverages and feed.

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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:**

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**



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. 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.

• **Eye/face protection**



Tightly sealed goggles

• **Body protection:** Use protective suit.

SECTION 9: Physical and chemical properties

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

• **General Information**

• **Physical state**

Fluid

• **Colour:**

Colourless

• **Odour:**

Strong

• **Odour threshold:**

Not determined.

• **Melting point/freezing point:**

Undetermined.

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

310 °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**

0.3

• **Viscosity:**

• **Kinematic viscosity**

Not determined.

• **Dynamic at 20 °C:**

21 mPas

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• Solubility	
• water:	Fully miscible.
• Partition coefficient n-octanol/water (log value)	Not determined.
• Vapour pressure at 20 °C:	<0.01 hPa
• Density and/or relative density	
• Density at 20 °C:	1.8148 g/cm ³
• 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:	3.0 %
• Solids content:	97.0 %
• Molecular weight	98.07 g/mol
• 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	May be corrosive to metals.
• Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** Stable under normal conditions. No decomposition if used according to regulations.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Corrosive action on metals.
Heating occurs when water is added.
Contact with water releases irritant gases.

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- **10.4 Conditions to avoid** Exposure to moisture.
- **10.5 Incompatible materials:**
Bases, alkali halides, organic materials, carbides, fulminates, nitrates, picrates, cyanides, chlorates, zinc salts, permanganates, hydrogen peroxide, azides, perchlorates, nitromethane, phosphorus.
Reacts violently with: cyclopentadiene, cyclopentanone oxime, nitroaryl amines, hexalithium disilicide, phosphorus(III) oxide, strong oxidising agents, powdered metals.
- **10.6 Hazardous decomposition products:**
Hazardous decomposition products formed under fire conditions: - Sulphur oxides.
In case of fire: see section 5.

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:**
Oral LD50 2,140 mg/kg (rat)
Inhalative LC50/4 h 0.85 mg/l (mouse)
- **Skin corrosion/irritation**
Fur - Rabbit
Result: Extremely corrosive and destructive to tissues.
Causes severe skin burns and eye damage.
- **Germ cell mutagenicity**
Ames test
Salmonella typhimurium
Result: negative
- **Carcinogenicity**
IARC: No component of this product is identified as a probable, possible or confirmed human carcinogen at levels greater than or equal to 0.1% by the International Agency for Research on Carcinogens (IARC).
- **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

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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.

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 or ID number

ADR, IMDG, IATA

UN1830

14.2 UN proper shipping name

ADR

1830 SULPHURIC ACID

IMDG, IATA

SULPHURIC ACID

14.3 Transport hazard class(es)

ADR, IMDG, IATA



Class

8 Corrosive substances.

Label

8

14.4 Packing group

ADR, IMDG, IATA

II

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

Stowage Code

SW15 For metal drums, stowage category B.

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 1830 SULPHURIC ACID, 8, II

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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 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.

- **Relevant phrases**
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
- **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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Met. Corr.1: Corrosive to metals – Category 1
Skin Corr. 1A: Skin corrosion/irritation – Category 1A