

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 21.09.2022

Version number 18

Revision: 12.09.2022

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

- **1.1 Product identifier**
- **Molecular formula:** H₂SO₄
- **Trade name:** Sulphuric acid C < 5%, 0.05M
- **SDS number:** CH0901
- **Application of the substance / the mixture** Chemicals products for laboratory

- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
CARLO ERBA REAGENTS
Chaussée du Vexin
Parc d'Affaires des Portes - BP616
27106 VAL DE REUIL Cedex
Téléphone: +33 (0)2 32 09 20 00
Télécopie: +33 (0)2 32 09 20 20
- **Further information obtainable from:**
Q.A / Normative
email: MSDS_CER-SDS@cer.dgroup.it
- **1.4 Emergency telephone number:**
Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)
EU Tel : 112
National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24 hour service)
Members of the public seeking specific information on poisons should contact:
In England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification


- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified, according to the GB CLP regulation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**
Safety data sheet available on request.
- **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:** Mixture made by the following substances:

- **Dangerous components:**

| | | | |
|--|-------------------|--|-----|
| CAS: 7664-93-9 EINECS: 231-639-5 Index number: 016-020-00-8 Reg.nr.: 01-2119458838-20 | Sulphuric acid..% |  Met. Corr.1, H290; Skin Corr. 1A, H314 | <5% |
|--|-------------------|--|-----|

GB

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SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult a doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly. Wash contaminated clothing before reuse.
Generally the product does not irritate the skin.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **Information for doctor:** Show the doctor this Material Safety Data Sheet.
- **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.
Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale gases in case of fire or combustion.
- **Additional information** Keep receptacles cool with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Dilute with plenty of water after collecting the liquid.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Collect the liquid with vacuum in a suitable container and absorb the remainder with a porous material (diatomite, acid binders, universal binders, etc).
- **6.4 Reference to other sections**
No dangerous substances are released.
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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a well-ventilated place. Keep container tightly closed.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from frost.

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 · 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: 7664-93-9 Sulphuric acid..%

| | |
|------------|---|
| <i>WEL</i> | Long-term value: 0.05* mg/m ³ *mist: defined as thoracic fraction |
|------------|---|

· DNELs
CAS: 7664-93-9 Sulphuric acid..%

| | | |
|-------------------|---|------------------------|
| <i>Inhalative</i> | <i>DNEL (workers-local effects Acute)</i> | 0.1 mg/m ³ |
| | <i>DNEL (workers-local chronic effects)</i> | 0.05 mg/m ³ |

· PNECs
CAS: 7664-93-9 Sulphuric acid..%

| | |
|-----------------------------------|-------------|
| <i>PNEC (Fresh water)</i> | 2.5 mg/l |
| <i>PNEC (Freshwater sediment)</i> | 0.002 mg/kg |
| <i>PNEC (Marine water)</i> | 0.25 mg/l |
| <i>PNEC (Seawater sediment)</i> | 0.002 mg/l |

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

· 8.2 Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:

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

Wash hands before breaks and at the end of work.

· Respiratory protection: Filter P2
· Protection of hands:

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

Rubber gloves

· Material of gloves

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

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

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.

Rubber gloves

· 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:


Safety glasses

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- **Body protection:**
Protective work clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
In case of pouring big amounts or disconnecting pipes.
- **Limitation and supervision of exposure into the environment**
In case of unintended release of the product: See section 6 of the Safety Data Sheet.
- **Risk management measures** Keep good industrial hygiene.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

- | | |
|--|---|
| · Molecular weight | 98.1 g |
| · Appearance: | |
| · Form: | Fluid |
| · Colour: | Colourless |
| · Odour: | Odourless |
| · Odour threshold: | Not determined. |
| · Change in condition | |
| · Melting point/freezing point: | 0 °C |
| · 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. |
| · Vapour pressure at 20 °C: | 23 hPa |
| · Density at 20 °C: | 1.03 g/cm ³ |
| · 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: | Not determined. |
| · Kinematic: | Not determined. |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** See 10.3
- **10.2 Chemical stability**
- **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.

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- **10.6 Hazardous decomposition products:**
No decomposition products known, more dangerous than the product as such.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

CAS: 7664-93-9 Sulphuric acid..%

| | | |
|------|------|-------------------|
| Oral | LD50 | 2,140 mg/kg (rat) |
|------|------|-------------------|

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Ingestion:** It can be harmful if swallowed.
- **Inhalation:** May be harmful if inhaled.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Other information (about experimental toxicology):** No further relevant information available.
- **Target organ 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** Based on available data, the classification criteria are not met.
- **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:**
Foreseeable as non relevant.

CAS: 7664-93-9 Sulphuric acid..%

| | |
|----------|--------------------------------|
| EC50/48h | >100 mg/l (Daphnia) (OECD 202) |
|----------|--------------------------------|

| | |
|----------|------------------|
| LC50/96h | 16 mg/l (fishes) |
|----------|------------------|

| | |
|------|-------------------------|
| LC50 | >100 mg/l (algae) (72h) |
|------|-------------------------|

- **12.2 Persistence and degradability** No further relevant information available.
- **Method**
- **Ecological information** Not available
- **Other information:** No available data.
- **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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· **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. Reutilise if possible or contact a waste processors for recycling or safe disposal.

· **Uncleaned packaging:**

The containers and packaging materials contaminated with dangerous substances or preparations, have the same treatment of products.

Directive 94/62/EC of the European Parliament and the Council of 20 December 1994 on packaging and packaging waste.

· **Recommendation:**

Disposal must be made according to official regulations.

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**

· **ADR/RID, IMDG, IATA** Void

· **14.2 UN proper shipping name**

· **ADR/RID, IMDG, IATA** Void

· **14.3 Transport hazard class(es)**

· **ADR/RID, ADN, IMDG, IATA**

· **Class** Void

· **14.4 Packing group**

· **ADR/RID, IMDG, IATA** Void

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

Not applicable.

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

Not applicable.

· **UN "Model Regulation":**

Void

SECTION 15: Regulatory information

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

· **SARA Section 355 (extremely hazardous substances)**

All ingredients are listed.

· **SARA Section 313 (specific toxic chemical listings)**

All ingredients are listed.

· **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

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- **Chemical safety assessment**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
0.0 g/l
0.00 %
- **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:** Q.A./Normative
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Carriage of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
RCR : Risk Characterisation Ratio
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)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
IMO : International Maritime Organization
Met. Corr. I: Corrosive to metals – Category 1
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
- **Sources**
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006, UK REACH, in latest valid version.
Regulation (EC) N° 1272/2008 of the European Parliament and of the Council of 16 December 2008, GB CLP, in the latest valid version.
Globally Harmonized System, GHS
ADR/RID, IMDG, IATA
PubChem : an open chemistry database at the National Institutes of Health (NIH)
ECHA : European CHEmicals Agency
GESTIS : Information system on hazardous substances of the German Social Accident Insurance
- *** Data compared to the previous version altered.** .