

**Sulfuric acid 0.1 mol/l**

Revision: 12.03.2025

Product code: AC15.00525

Page 1 of 11

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Sulfuric acid 0.1 mol/l

UFI: 0RG8-104J-8009-XUND

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet****Details of the supplier of the safety data sheet**

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: N-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Belgium NV  
Street: Industriezone "De Arend" 2  
Place: B-8210 Zedelgem  
Telephone: +32 50 28 83 20  
E-mail: info.be@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Responsible Department: AnalytiChem:  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333  
+44 20 3807 3798 (CHEMTREC)

**1.4. Emergency telephone number:****Further Information**

inapplicable, this product is a mixture REACH registration number see section 3

## Sulfuric acid 0.1 mol/l

Revision: 12.03.2025

Product code: AC15.00525

Page 2 of 11

## SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture**

Regulation (EC) No 1272/2008

Met. Corr. 1; H290

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

Regulation (EC) No 1272/2008

Signal word: Warning

Pictograms:

**Hazard statements**

H290 May be corrosive to metals.

**Precautionary statements**P234 Keep only in original packaging.  
P390 Absorb spillage to prevent material damage.**2.3. Other hazards**

No data available

## SECTION 3: Composition/information on ingredients

**3.2. Mixtures****Chemical characterization**

Mixtures in aqueous solution

**Relevant ingredients**

| CAS No    | Chemical name                                           |              |                  | Quantity  |
|-----------|---------------------------------------------------------|--------------|------------------|-----------|
|           | EC No                                                   | Index No     | REACH No         |           |
|           | Classification (Regulation (EC) No 1272/2008)           |              |                  |           |
| 7664-93-9 | sulphuric acid                                          |              |                  | 1 - < 5 % |
|           | 231-639-5                                               | 016-020-00-8 | 01-2119458838-20 |           |
|           | Met. Corr. 1, Skin Corr. 1A, Eye Dam. 1; H290 H314 H318 |              |                  |           |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No    | EC No                                                                                                                     | Chemical name  | Quantity  |
|-----------|---------------------------------------------------------------------------------------------------------------------------|----------------|-----------|
|           | Specific Conc. Limits, M-factors and ATE                                                                                  |                |           |
| 7664-93-9 | 231-639-5                                                                                                                 | sulphuric acid | 1 - < 5 % |
|           | oral: LD50 = 2140 mg/kg Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 Eye Irrit. 2; H319: >= 5 - < 15 |                |           |

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

## SECTION 4: First aid measures

**Sulfuric acid 0.1 mol/l**

Revision: 12.03.2025

Product code: AC15.00525

Page 3 of 11

**4.1. Description of first aid measures****General information**

No data available

**After inhalation**

Provide fresh air.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Irritant

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

No data available

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

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

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

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Sulphur oxides

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Suppress gases/vapours/mists with water spray jet.

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

Corrosive to metals.

**For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

**Sulfuric acid 0.1 mol/l**

Revision: 12.03.2025

Product code: AC15.00525

Page 4 of 11

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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

Read label before use.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

**Further information on handling**

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary .

Take off immediately all contaminated clothing and wash it before reuse .

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Corrosive to metals.

Unsuitable container/equipment material: Metal, Light metal

The product develops hydrogen in an aqueous solution in contact with metals.

**Hints on joint storage**

Take national regulations into account.

**Further information on storage conditions**

Keep container tightly closed.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

## Sulfuric acid 0.1 mol/l

Revision: 12.03.2025

Product code: AC15.00525

Page 5 of 11

## Exposure limits (EH40)

| CAS No    | Substance             | ppm | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|-----------|-----------------------|-----|-------------------|-----------|-----------|--------|
| 7664-93-9 | Sulphuric acid (mist) | -   | 0.05              |           | TWA (8 h) | WEL    |

## DNEL/DMEL values

| CAS No                 | Substance      | Exposure route | Effect | Value                  |
|------------------------|----------------|----------------|--------|------------------------|
| 7664-93-9              | sulphuric acid |                |        |                        |
| Worker DNEL, long-term |                | inhalation     | local  | 0,05 mg/m <sup>3</sup> |
| Worker DNEL, acute     |                | inhalation     | local  | 0,1 mg/m <sup>3</sup>  |

## PNEC values

| CAS No                                           | Substance      | Value       |
|--------------------------------------------------|----------------|-------------|
| 7664-93-9                                        | sulphuric acid |             |
| Freshwater                                       |                | 0,003 mg/l  |
| Marine water                                     |                | 0 mg/l      |
| Freshwater sediment                              |                | 0,002 mg/kg |
| Marine sediment                                  |                | 0,002 mg/kg |
| Micro-organisms in sewage treatment plants (STP) |                | 8,8 mg/l    |

## 8.2. Exposure controls

## Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

## Individual protection measures, such as personal protective equipment

## Eye/face protection

goggles

Wear eye/face protection.

## Hand protection

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) with the following specification (test according to EN 374):

By long-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Recommended glove articles: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Sulfuric acid 0.1 mol/l**

Revision: 12.03.2025

Product code: AC15.00525

Page 6 of 11

**Skin protection**

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                                                           |                   |                          |
|-----------------------------------------------------------|-------------------|--------------------------|
| Physical state:                                           | Liquid            |                          |
| Colour:                                                   | colourless        |                          |
| Odour:                                                    | odourless         |                          |
| Odour threshold:                                          | No data available |                          |
| Melting point/freezing point:                             |                   | No data available        |
| Boiling point or initial boiling point and boiling range: |                   | No data available        |
| Flammability:                                             |                   | No data available        |
| Lower explosion limits:                                   |                   | No data available        |
| Upper explosion limits:                                   |                   | No data available        |
| Flash point:                                              |                   | No data available        |
| Auto-ignition temperature:                                |                   | No data available        |
| Decomposition temperature:                                |                   | No data available        |
| pH-Value:                                                 |                   | <1                       |
| Viscosity / kinematic:                                    |                   | No data available        |
| Water solubility:                                         |                   | completely miscible      |
| Solubility in other solvents                              |                   | No data available        |
| Dissolution rate:                                         |                   | No data available        |
| Partition coefficient n-octanol/water:                    |                   | No data available        |
| Dispersion stability:                                     |                   | No data available        |
| Vapour pressure:                                          |                   | No data available        |
| Vapour pressure:                                          |                   | No data available        |
| Density:                                                  |                   | 1,0048 g/cm <sup>3</sup> |
| Bulk density:                                             |                   | No data available        |
| Relative vapour density:                                  |                   | No data available        |
| Particle characteristics:                                 |                   | No data available        |

**9.2. Other information****Information with regard to physical hazard classes**

Explosive properties

No data available

Sustained combustibility:

No data available

Self-ignition temperature

Solid:

No data available

Gas:

No data available

**Sulfuric acid 0.1 mol/l**

Revision: 12.03.2025

Product code: AC15.00525

Page 7 of 11

Oxidizing properties  
No data available

**Other safety characteristics**

|                          |                   |
|--------------------------|-------------------|
| Evaporation rate:        | No data available |
| Solvent separation test: | No data available |
| Solvent content:         | 0                 |
| Solid content:           | 0                 |
| Sublimation point:       | No data available |
| Softening point:         | No data available |
| Pour point:              | No data available |
| No data available:       |                   |
| Viscosity / dynamic:     | No data available |
| Flow time:               | No data available |

**Further Information**

Corrosive to metals.

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

Corrosive to metals.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Metal

The product develops hydrogen in an aqueous solution in contact with metals.

**10.4. Conditions to avoid**

No data available

**10.5. Incompatible materials**

Cellulose

Metal

The product develops hydrogen in an aqueous solution in contact with metals.

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes****Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

Based on available data, the classification criteria are not met.

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

## Sulfuric acid 0.1 mol/l

Revision: 12.03.2025

Product code: AC15.00525

Page 8 of 11

| CAS No    | Chemical name  |                 |         |                                          |                                          |
|-----------|----------------|-----------------|---------|------------------------------------------|------------------------------------------|
|           | Exposure route | Dose            | Species | Source                                   | Method                                   |
| 7664-93-9 | sulphuric acid |                 |         |                                          |                                          |
|           | oral           | LD50 2140 mg/kg | Rat     | Am Ind Hyg Assoc J. 1969 Sep-Oct; 30(5): | The study was performed as part of a ser |

**Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects 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.

**Information on likely routes of exposure**

There are no data available on the mixture itself.

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.

**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

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

There are no data available on the mixture itself.

**Other information**

There are no data available on the mixture itself.

**Further information**

There are no data available on the mixture itself.

**SECTION 12: Ecological information****12.1. Toxicity**

Based on available data, the classification criteria are not met.



**Sulfuric acid 0.1 mol/l**

Revision: 12.03.2025

Product code: AC15.00525

Page 9 of 11

| CAS No    | Chemical name            |                  |           |                         |                                         |                                    |
|-----------|--------------------------|------------------|-----------|-------------------------|-----------------------------------------|------------------------------------|
|           | Aquatic toxicity         | Dose             | [h]   [d] | Species                 | Source                                  | Method                             |
| 7664-93-9 | sulphuric acid           |                  |           |                         |                                         |                                    |
|           | Acute algae toxicity     | ErC50 > 100 mg/l | 72 h      | Desmodesmus subspicatus | Study report (2009)                     | OECD Guideline 201                 |
|           | Acute crustacea toxicity | EC50 > 100 mg/l  | 48 h      | Daphnia magna           | Study report (2009)                     | OECD Guideline 202                 |
|           | Fish toxicity            | NOEC 0,025 mg/l  | 65 d      | Jordanella floridae     | Water Research Vol. 11, 612 - 626, 1977 | Groups of sexually mature flagfish |

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**12.4. Mobility in soil**

There are no data available on the mixture itself.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

There are no data available on the mixture itself.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**Contaminated packaging**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information****Land transport (ADR/RID)**

|                                          |                                                              |
|------------------------------------------|--------------------------------------------------------------|
| <b>14.1. UN number or ID number:</b>     | UN 3264                                                      |
| <b>14.2. UN proper shipping name:</b>    | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid) |
| <b>14.3. Transport hazard class(es):</b> | 8                                                            |
| <b>14.4. Packing group:</b>              | III                                                          |
| Hazard label:                            | 8                                                            |
| Classification code:                     | C1                                                           |
| Special Provisions:                      | 274                                                          |
| Limited quantity:                        | 5 L                                                          |
| Excepted quantity:                       | E1                                                           |
| Transport category:                      | 3                                                            |
| Hazard No:                               | 80                                                           |

## Sulfuric acid 0.1 mol/l

Revision: 12.03.2025

Product code: AC15.00525

Page 10 of 11

Tunnel restriction code: E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 3264  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
Hazard label: 8  
Classification code: C1  
Special Provisions: 274  
Limited quantity: 5 L  
Excepted quantity: E1

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 3264  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
Hazard label: 8  
Special Provisions: 223, 274  
Limited quantity: 5 L  
Excepted quantity: E1  
EmS: F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 3264  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (sulphuric acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
Hazard label: 8  
Special Provisions: A3 A803  
Limited quantity Passenger: 1 L  
Passenger LQ: Y841  
Excepted quantity: E1  
IATA-packing instructions - Passenger: 852  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 856  
IATA-max. quantity - Cargo: 60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**Restrictions on use (REACH, annex XVII):  
Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

**National regulatory information**

**Sulfuric acid 0.1 mol/l**

Revision: 12.03.2025

Product code: AC15.00525

Page 11 of 11

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): - - non-hazardous to water

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1, 12.

**Abbreviations and acronyms**

Met. Corr. 1: Corrosive to metals, hazard category 1

Skin Corr. 1A: Skin corrosion, sub-category 1A

Eye Dam. 1: Serious eye damage, hazard category 1

**Classification for mixtures and used evaluation method**

| Classification     | Classification procedure |
|--------------------|--------------------------|
| Met. Corr. 1; H290 | On basis of test data    |

**Relevant H and EUH statements (number and full text)**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

**Further Information**

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*