

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Selenige Säure mind. 98%

Revision date: 10.12.2024

Product code: 27055

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

### 1.1. Product identifier

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Substance name: selenious acid  
CAS No: 7783-00-8  
Index No: 034-002-00-8  
EC No: 231-974-7

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/mixture

Laboratory chemicals

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

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

#### Uses advised against

Do not use for private purposes (household).

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

Company name: AnalytiChem GmbH  
ACD  
Street: Stempelstraße 6  
Place: D-47167 Duisburg  
Telephone: 0203/5194-0      Telefax: 0203/5194-290  
E-mail: info@analytichem.de  
Contact person: Abteilung Produktsicherheit      Telephone: 0203/5194-107/117  
E-mail: produktsicherheit@analytichem.de  
Internet: www.analytichem.de  
Responsible Department: Abteilung Produktsicherheit

### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

### Further Information

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

Acute Tox. 3; H331  
Acute Tox. 3; H301  
STOT RE 2; H373  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

Signal word: Danger

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#### Pictograms:



#### Hazard statements

H301+H331 Toxic if swallowed or if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.

#### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P308+P311 IF exposed or concerned: Call a POISON CENTER.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

#### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Sum formula: H<sub>2</sub> O<sub>3</sub> Se  
Molecular weight: 128,97 g/mol

#### Relevant ingredients

| CAS No    | Chemical name  | Quantity |
|-----------|--|----------|
|           | EC No Index No REACH No  |          |
|           | Classification (Regulation (EC) No 1272/2008)  |          |
| 7783-00-8 | selenious acid   | 100 %    |
|           | 231-974-7 034-002-00-8   |          |
|           | Acute Tox. 3, Acute Tox. 3, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H331 H301 H373<br>H400 H410 |          |

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   |          |
| 7783-00-8 | 231-974-7 | selenious acid   | 100 %    |
|           |           | inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); oral: ATE = 100 mg/kg |          |

#### 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

### 4.1. Description of first aid measures

#### General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.  
Call a physician immediately.

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#### After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

#### After contact with skin

Wash immediately with: Water  
Take off immediately all contaminated clothing and wash it before reuse.  
Call a physician immediately.

#### 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.  
Protect uninjured eye.

#### After ingestion

Rinse mouth immediately and drink plenty of water.  
Induce vomiting when the affected person is not unconscious.  
Call a physician immediately.

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

Dizziness  
Tod

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

Treat symptomatically.

## 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 solids  
Hazardous combustion products  
In case of fire may be liberated:  
Metal oxide smoke, toxic

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.  
In case of fire and/or explosion do not breathe fumes.  
Avoid contact with skin, eyes and clothes.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Use water spray jet to protect personnel and to cool endangered containers.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

Do not breathe dust.

#### For non-emergency personnel

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.

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Remove persons to safety.  
Emergency procedures  
Consult an expert  
Do not breathe dust/fume/gas/mist/vapours/spray.

#### 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 containment

Cover drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Collect in closed and suitable containers for disposal.  
Take up carefully when dry. Take up dust-free and set down dust-free.

##### 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. Use extractor hood (laboratory). Avoid contact with skin, eyes and clothes. Avoid dust formation. Do not breathe dust.

##### Advice on protection against fire and explosion

No special fire protection measures are necessary.

##### 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.  
Do not breathe dust. Avoid dust formation.

##### 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

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

##### Hints on joint storage

national regulations

##### Further information on storage conditions

Store in a dry place.

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

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Laboratory chemicals

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

**8.1. Control parameters**

**8.2. Exposure controls**

**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

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

**Eye/face protection**

Wear eye protection/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L

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

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: 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)).

**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**

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

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: solid

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|   |                         |
|---|-------------------------|
| Colour:   | white                   |
| Odour threshold:  | No data available       |
| Melting point/freezing point:                             | 70 °C                   |
| 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:   | No data available       |
| Viscosity / kinematic:                                    | No data available       |
| Water solubility:<br>(at 20 °C)                           | 167 g/l                 |
| 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       |
| Density:  | 1,034 g/cm <sup>3</sup> |
| Relative density:   | No data available       |
| 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 |
| Sustaining combustion:    | No data available |
| Self-ignition temperature | No data available |
| Solid:                    | No data available |
| Gas:                      | No data available |
| Oxidizing properties      | Not oxidising.    |

##### Other safety characteristics

|                          |                   |
|--------------------------|-------------------|
| Evaporation rate:        | No data available |
| Solvent separation test: | No data available |
| Solvent content:         | 0                 |
| Solid content:           | 100%              |
| Sublimation point:       | No data available |
| Softening point:         | No data available |
| Pour point:              | No data available |
| No data available:       | No data available |
| Viscosity / dynamic:     | No data available |
| Flow time:               | No data available |

##### Further Information

No data available

#### SECTION 10: Stability and reactivity

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**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

hygroscopic.

**10.3. Possibility of hazardous reactions**

Oxidising agent, strong  
Substance, organic  
Powdered metals  
Reducing agent, strong

**10.4. Conditions to avoid**

Humidity

**10.5. Incompatible materials**

No information available.

**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 as defined in Regulation (EC) No 1272/2008**

**Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

Toxic if swallowed.  
Toxic if inhaled.

| CAS No    | Chemical name        |               |         |        |        |
|-----------|----------------------|---------------|---------|--------|--------|
|           | Exposure route       | Dose          | Species | Source | Method |
| 7783-00-8 | selenious acid       |               |         |        |        |
|           | oral                 | ATE 100 mg/kg |         |        |        |
|           | inhalation vapour    | ATE 3 mg/l    |         |        |        |
|           | inhalation dust/mist | ATE 0,5 mg/l  |         |        |        |

**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**

May cause damage to organs through prolonged or repeated exposure. (selenious acid)

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#### Aspiration hazard

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

#### Information on likely routes of exposure

No data available

#### Specific effects in experiment on an animal

No data available

#### Additional information on tests

No data available

#### Practical experience

No data available

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

No data available

##### Other information

No data available

##### Further information

No data available

## SECTION 12: Ecological information

#### 12.1. Toxicity

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

#### 12.2. Persistence and degradability

No data available

#### 12.3. Bioaccumulative potential

No data available

#### 12.4. Mobility in soil

No data available

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

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

#### 12.7. Other adverse effects

Discharge into the environment must be avoided.

##### Further information

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

## SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

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

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

##### Contaminated packaging

This material and its container must be disposed of as hazardous waste.

Handle contaminated packages in the same way as the substance itself.



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## SECTION 14: Transport information

### Land transport (ADR/RID)

|  |   |
|--|---|
| <b>14.1. UN number or ID number:</b>     | UN 3283   |
| <b>14.2. UN proper shipping name:</b>    | SELENIUM COMPOUND, SOLID, N.O.S. (selenious acid) |
| <b>14.3. Transport hazard class(es):</b> | 6.1   |
| <b>14.4. Packing group:</b>              | II  |
| Hazard label:                            | 6.1   |
| Classification code:                     | T5  |
| Special Provisions:                      | 274 563   |
| Limited quantity:                        | 500 g   |
| Excepted quantity:                       | E4  |
| Transport category:                      | 2   |
| Hazard No:                               | 60  |
| Tunnel restriction code:                 | D/E   |

### Inland waterways transport (ADN)

|  |   |
|--|---|
| <b>14.1. UN number or ID number:</b>     | UN 3283   |
| <b>14.2. UN proper shipping name:</b>    | SELENIUM COMPOUND, SOLID, N.O.S. (selenious acid) |
| <b>14.3. Transport hazard class(es):</b> | 6.1   |
| <b>14.4. Packing group:</b>              | II  |
| Hazard label:                            | 6.1   |
| Classification code:                     | T5  |
| Special Provisions:                      | 274 563 802                                       |
| Limited quantity:                        | 500 g   |
| Excepted quantity:                       | E4  |

### Marine transport (IMDG)

|  |   |
|--|---|
| <b>14.1. UN number or ID number:</b>     | UN 3283   |
| <b>14.2. UN proper shipping name:</b>    | SELENIUM COMPOUND, SOLID, N.O.S. (selenious acid) |
| <b>14.3. Transport hazard class(es):</b> | 6.1   |
| <b>14.4. Packing group:</b>              | II  |
| Hazard label:                            | 6.1   |
| Special Provisions:                      | 274   |
| Limited quantity:                        | 500 g   |
| Excepted quantity:                       | E4  |
| EmS:                                     | F-A, S-A  |

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

|  |   |
|--|---|
| <b>14.1. UN number or ID number:</b>     | UN 3283   |
| <b>14.2. UN proper shipping name:</b>    | SELENIUM COMPOUND, SOLID, N.O.S. (selenious acid) |
| <b>14.3. Transport hazard class(es):</b> | 6.1   |
| <b>14.4. Packing group:</b>              | II  |
| Hazard label:                            | 6.1   |
| Special Provisions:                      | A3 A5   |
| Limited quantity Passenger:              | 1 kg  |
| Passenger LQ:                            | Y644  |
| Excepted quantity:                       | E4  |
| IATA-packing instructions - Passenger:   | 669   |
| IATA-max. quantity - Passenger:          | 25 kg   |
| IATA-packing instructions - Cargo:       | 676   |
| IATA-max. quantity - Cargo:              | 100 kg  |

### 14.5. Environmental hazards

|                             |                |
|-----------------------------|----------------|
| ENVIRONMENTALLY HAZARDOUS:  | Yes            |
| Danger releasing substance: | selenious acid |

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#### 14.6. Special precautions for user

Warning: Toxic.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### EU regulatory information

Information according to Directive H2 ACUTE TOXIC

2012/18/EU (SEVESO III):

Additional information: E1

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 3 - highly hazardous to water

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 1,3,4,5,6,7,8,9,10,11,12,13,15,16.

#### Abbreviations and acronyms

Acute Tox: Acute toxicity

STOT RE: Specific target organ toxicity - repeated exposure

Aquatic Acute: Acute aquatic hazard

Aquatic Chronic: Chronic aquatic hazard

ADR: Accord européen sur le transport 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 Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

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

H301 Toxic if swallowed.

H301+H331 Toxic if swallowed or if inhaled.

H331 Toxic if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

#### 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

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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.