

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Multi element standard solution 8 17 elements in sulfuric acid 37.5% + 4.0 g Na/l

Revision date: 30.08.2021

Product code: 31089

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

1.1. Product identifier

Multi element standard solution 8 17 elements in sulfuric acid 37.5% + 4.0 g Na/l

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: | Fa. Bernd Kraft GmbH | |
| Street: | Stempelstraße 6 | |
| Place: | D-47167 Duisburg | |
| Telephone: | 0203/5194-0 | Telefax: 0203/5194-290 |
| e-mail: | info@berndkraft.de | |
| Contact person: | Abteilung Produktsicherheit | Telephone: 0203/5194-107/117 |
| e-mail: | produktsicherheit@berndkraft.de | |
| Internet: | www.berndkraft.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

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Met. Corr. 1; H290

Skin Corr. 1A; H314

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

sulphuric acid 37,5 %

Signal word: Danger

Pictograms:



Hazard statements

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

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Precautionary statements

- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 IF exposed or concerned:
- P310 Immediately call a POISON CENTER/doctor.

Special labelling of certain mixtures

- EUH208 Contains nickel dinitrate. May produce an allergic reaction.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Hazardous components

| CAS No | Chemical name | | | Quantity |
|------------|--|--------------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 7664-93-9 | sulphuric acid | | | 35 - < 40 % |
| | 231-639-5 | 016-020-00-8 | 01-2119458838-20 | |
| | Met. Corr. 1, Skin Corr. 1A, Eye Dam. 1; H290 H314 H318 | | | |
| 7647-14-5 | sodium chloride | | | < 1 % |
| | 231-598-3 | | 01-2119485491-33 | |
| | | | | |
| 7697-37-2 | nitric acid | | | < 1 % |
| | 231-714-2 | 007-030-00-3 | 01-2119487297-23 | |
| | Ox. Liq. 3, Met. Corr. 1, Acute Tox. 3, Skin Corr. 1A; H272 H290 H331 H314 EUH071 | | | |
| 13138-45-9 | nickel dinitrate | | | < 0.1 % |
| | 236-068-5 | 028-012-00-1 | | |
| | Ox. Sol. 2, Carc. 1A, Muta. 2, Repr. 1B, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Resp. Sens. 1, Skin Sens. 1, STOT RE 1, Aquatic Acute 1, Aquatic Chronic 1; H272 H350i H341 H360D H332 H302 H315 H318 H334 H317 H372 H400 H410 | | | |

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

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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 | 35 - < 40 % |
| | oral: LD50 = 2140 mg/kg Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15 Eye Irrit. 2; H319: >= 5 - < 15 | | |
| 7647-14-5 | 231-598-3 | sodium chloride | < 1 % |
| | dermal: LD50 = > 10000 mg/kg; oral: LD50 = 3550 mg/kg | | |
| 7697-37-2 | 231-714-2 | nitric acid | < 1 % |
| | inhalation: ATE 2,65 mg/kg (vapours) Ox. Liq. 3; H272: >= 65 - 100 Skin Corr. 1A; H314: >= 20 - 100 Skin Corr. 1B; H314: >= 5 - < 20 | | |
| 13138-45-9 | 236-068-5 | nickel dinitrate | < 0.1 % |
| | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = 361,9 mg/kg Skin Irrit. 2; H315: >= 20 - 100 Skin Sens. 1; H317: >= 0,01 - 100 STOT RE 1; H372: >= 1 - 100 STOT RE 2; H373: >= 0,1 - < 1 M acute; H400: M=1 M chron.; H410: M=1 | | |

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!

After inhalation

Provide fresh air.
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. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

Risk of serious damage to eyes.
Causes burns.
Irritant
Cough
Dyspnoea
Vomiting
Gastric perforation
Nausea
Abdominal pain

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

No data available

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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.

Avoid contact with skin, eyes and clothes.

Additional information

Use water spray jet to protect personnel and to cool endangered containers.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

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.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

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

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff.
Use personal protection equipment. Use extractor hood (laboratory).
Provide adequate ventilation.
Avoid contact with skin, eyes and clothes.

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. 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

Keep container tightly closed.
Unsuitable container/equipment material: Metal

Further information on storage conditions

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

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|-----------|----------------|-----|-------------------|---------------------|---------------|--------|
| 7697-37-2 | Nitric acid | 1 | 2.6 | | STEL (15 min) | |
| 7664-93-9 | Sulphuric acid | - | 0.05 | | TWA (8 h) | |

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DNEL/DMEL values

| CAS No | Substance | | |
|--------------------------|------------------|----------|---------------------------|
| DNEL type | Exposure route | Effect | Value |
| 7664-93-9 | sulphuric acid | | |
| Worker DNEL, long-term | inhalation | local | 0,05 mg/m ³ |
| Worker DNEL, acute | inhalation | local | 0,1 mg/m ³ |
| 7647-14-5 | sodium chloride | | |
| Worker DNEL, acute | dermal | systemic | 295,52 mg/kg bw/day |
| Consumer DNEL, long-term | inhalation | systemic | 443,28 mg/m ³ |
| Consumer DNEL, acute | inhalation | systemic | 443,28 mg/m ³ |
| Worker DNEL, long-term | dermal | systemic | 295,52 mg/kg bw/day |
| Consumer DNEL, long-term | dermal | systemic | 126,65 mg/kg bw/day |
| Consumer DNEL, acute | dermal | systemic | 126,65 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 126,65 mg/kg bw/day |
| Consumer DNEL, acute | oral | systemic | 126,65 mg/kg bw/day |
| Worker DNEL, long-term | inhalation | systemic | 2068,62 mg/m ³ |
| Worker DNEL, acute | inhalation | systemic | 2068,62 mg/m ³ |
| 13138-45-9 | nickel dinitrate | | |
| Consumer DNEL, acute | oral | systemic | 0,012 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 0,02 mg/kg bw/day |
| Worker DNEL, acute | inhalation | systemic | 104 mg/m ³ |
| Worker DNEL, acute | inhalation | local | 1,6 mg/m ³ |
| Consumer DNEL, acute | inhalation | systemic | 8,8 mg/m ³ |
| Consumer DNEL, acute | inhalation | local | 0,1 mg/m ³ |

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PNEC values

| CAS No | Substance | Value |
|--|------------------|-------------|
| Environmental compartment | | |
| 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 |
| 7647-14-5 | sodium chloride | |
| Freshwater | | 5 mg/l |
| Micro-organisms in sewage treatment plants (STP) | | 500 mg/l |
| Soil | | 4,86 mg/kg |
| 13138-45-9 | nickel dinitrate | |
| Freshwater | | 0,0071 mg/l |
| Freshwater (intermittent releases) | | 0 mg/l |
| Marine water | | 0,0086 mg/l |
| Freshwater sediment | | 109 mg/kg |
| Marine sediment | | 109 mg/kg |
| Secondary poisoning | | 0,12 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 0,33 mg/l |
| Soil | | 29,9 mg/kg |

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

Suitable eye protection:

goggles

Face protection shield

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 With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 730 Camatril® Velours

Recommended material: NBR (Nitrile rubber) 0,4 mm

Wearing time with permanent contact: > 480 min

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By short-term hand contact

Trade name/designation: KCL 720 Camapren®

Recommended material: CR (polychloroprene, chloroprene rubber) 0,65 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).

Skin protection

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

Wash hands before breaks and after work.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

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

Changes in the physical state

Melting point/freezing point: No data available
Boiling point or initial boiling point and boiling range: No data available
Sublimation point: No data available
Softening point: No data available
Pour point: No data available
No data available:
Flash point: X

Flammability

Solid/liquid: No data available
Gas: No data available

Explosive properties

No data available

Lower explosion limits: No data available
Upper explosion limits: No data available
Auto-ignition temperature: No data available

Self-ignition temperature

Solid: No data available
Gas: No data available

Decomposition temperature: No data available

pH-Value: acidic

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

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| | |
|--|-------------------------|
| Flow time: | No data available |
| Water solubility: | very soluble |
| Solubility in other solvents | |
| No data available | |
| Partition coefficient n-octanol/water: | No data available |
| Vapour pressure: | No data available |
| Vapour pressure: | No data available |
| Density: | 1,281 g/cm ³ |
| Bulk density: | No data available |
| Relative vapour density: | No data available |

9.2. Other information

Information with regard to physical hazard classes

| | |
|------------------------|-------------------|
| Sustaining combustion: | No data available |
| Oxidizing properties | |
| No data available | |

Other safety characteristics

| | |
|--------------------------|-------------------|
| Solvent separation test: | No data available |
| Solvent content: | No data available |
| Solid content: | No data available |
| Evaporation rate: | No data available |

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.
Oxidising agent, strong

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Violent reaction with:
Water, Alkali metals, Ammonia
aldehydes, Alkaline earth metal, Acids
Alkali (lye), Metal,
Phosphorus oxides, Combustible substance
Solvent, Aniline, permanganates, e.g. potassium permanganate
Peroxides, Amines, Carbide
peroxides, for example hydrogen peroxide , Nitriles

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

In case of fire may be liberated:
SECTION 5: Firefighting measures

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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

There are no data available on the mixture itself.

Acute toxicity

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Irritation to respiratory tract (Cough, Dyspnoea)

| 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 |
| 7647-14-5 | sodium chloride | | | | |
| | oral | LD50 3550 mg/kg | Rat | Study report | The study methodology followed appeared |
| | dermal | LD50 > 10000 mg/kg | Rabbit | Study report | The study methology followed appeared to |
| 7697-37-2 | nitric acid | | | | |
| | inhalation vapour | ATE 2,65 mg/kg | | | |
| 13138-45-9 | nickel dinitrate | | | | |
| | oral | LD50 361,9 mg/kg | Rat | Regul Toxicol and Pharmacol (doi.org/10. | OECD Guideline 425 |
| | inhalation vapour | ATE 11 mg/l | | | |
| | inhalation dust/mist | ATE 1,5 mg/l | | | |

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Risk of serious damage to eyes.

Sensitising effects

Contains nickel dinitrate. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

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.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

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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

Other information

There are no data available on the mixture itself.

Further information

Risk of serious damage to eyes.

Causes burns.

Irritant

Cough

Dyspnoea

Vomiting

Gastric perforation

Nausea

Abdominal pain

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

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| CAS No | Chemical name | | | | | |
|------------|--------------------------|----------------|-----------|---------|--|---|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7664-93-9 | sulphuric acid | | | | | |
| | Acute algae toxicity | ErC50 mg/l | > 100 | 72 h | Desmodesmus subspicatus | Study report (2009) OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | > 100 | 48 h | Daphnia magna | Study report (2009) OECD Guideline 202 |
| | Fish toxicity | NOEC mg/l | 0,025 | 65 d | Jordanella floridae | Water Research Vol. 11, 612 - 626, 1977 Groups of sexually mature flagfish |
| 7647-14-5 | sodium chloride | | | | | |
| | Acute fish toxicity | LC50 mg/l | 5840 | 96 h | Lepomis macrochirus | Study report (1985) other: ASTM E729 |
| | Acute crustacea toxicity | EC50 mg/l | 4136 | 48 h | Daphnia magna | J. fish. Res. Bd. Canada, 29: 1691-1700. OECD Guideline 202 |
| | Fish toxicity | NOEC | 252 mg/l | 33 d | Pimephales promelas | Study report (1985) OECD Guideline 210 |
| | Crustacea toxicity | NOEC | 314 mg/l | 21 d | Daphnia pulex | Memorandum of agreement No. 5429, Kentuc OECD Guideline 211 |
| 7697-37-2 | nitric acid | | | | | |
| | Acute fish toxicity | LC50 mg/l | 1559 | 96 h | Topeka shiner | Environmental Toxicology and Chemistry, other: ASTM E729-26 |
| | Fish toxicity | NOEC | 268 mg/l | 30 d | juvenile Topeka shiner and with juvenile Fathead m | Study report (2009) Growth tests estimated the test chemical |
| | Algae toxicity | NOEC mg/l | > 419 | 10 d | several benthic diatoms; see results | Marine Biology 43:307-315 (1977) Ten cultures of benthic diatoms were iso |
| | Acute bacteria toxicity | (EC50 mg/l) | > 1000 | 3 h | Activated sludge | Study report (2008) OECD Guideline 209 |
| 13138-45-9 | nickel dinitrate | | | | | |
| | Acute fish toxicity | LC50 mg/l | 15,3 | 96 h | Oncorhynchus mykiss | Aquatic Toxicology 63 (2003) 65-82 (2003) other: not reported |
| | Acute algae toxicity | ErC50 mg/l | 0,237 | 72 h | Ankistrodesmus falcatus | Publication (2009) OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | 0,2663 | 48 h | Ceriodaphnia dubia | Study report (2004) other: American society of testing and m |
| | Fish toxicity | NOEC mg/l | 0,057 | 32 d | Pimephales promelas | Water Resources Research Institute. Kent other: ASTM 1980, E-729 |
| | Algae toxicity | NOEC | 0,6 mg/l | 14 d | Anabaena cylindrica | Environ. Pollut. (Series A). 25(4):241-2 other: not reported |
| | Crustacea toxicity | NOEC mg/l | 0,04 | 42 d | Daphnia magna | Wat. Res. 24(7):845-852 (1990) Chronic exposure to sublethal concentrat |

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| | | | | | | |
|--|-------------------------|----------------|-------|------------------|--|----------|
| | Acute bacteria toxicity | (EC50 33 mg/l) | 0,5 h | Activated sludge | Journal of Hazardous Materials. B139:332 | ISO 8192 |
|--|-------------------------|----------------|-------|------------------|--|----------|

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.

BCF

| CAS No | Chemical name | BCF | Species | Source |
|------------|------------------|-----|---------------------|----------------------|
| 13138-45-9 | nickel dinitrate | 23 | Spirodela polyrhiza | Ecotoxicology and en |

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 REACH, annex XIII.

There are no data available on the mixture itself.

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

Avoid release to the environment.

Further information

Do not allow to enter into surface water or drains.

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 mix with other wastes.

Do not allow to enter into surface water or drains.

Contaminated packaging

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

| | |
|--|----------------|
| 14.1. UN number or ID number: | UN 2796 |
| 14.2. UN proper shipping name: | SULPHURIC ACID |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | II |
| Hazard label: | 8 |
| Classification code: | C1 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| Transport category: | 2 |
| Hazard No: | 80 |
| Tunnel restriction code: | E |

Inland waterways transport (ADN)

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14.1. UN number or ID number: UN 2796
14.2. UN proper shipping name: Sulphuric acid
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8
Classification code: C1
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number: UN 2796
14.2. UN proper shipping name: Sulphuric acid
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8
Special Provisions: -
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 2796
14.2. UN proper shipping name: SULPHURIC ACID
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8
Limited quantity Passenger: 0.5 L
Passenger LQ: Y840
Excepted quantity: E2
IATA-packing instructions - Passenger: 851
IATA-max. quantity - Passenger: 1 L
IATA-packing instructions - Cargo: 855
IATA-max. quantity - Cargo: 30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: strongly corrosive.

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

Restrictions on use (REACH, annex XVII):
Entry 3, Entry 28, Entry 75

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Changes

Multi element standard solution 8 17 elements in sulfuric acid 37.5% + 4.0 g Na/l

Revision date: 30.08.2021

Product code: 31089

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This data sheet contains changes from the previous version in section(s): 1,2,7,8.

Abbreviations and acronyms

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%

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

| Classification | Classification procedure |
|---------------------|--------------------------|
| Met. Corr. 1; H290 | On basis of test data |
| Skin Corr. 1A; H314 | Calculation method |
| Eye Dam. 1; H318 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|--------|--|
| H272 | May intensify fire; oxidiser. |
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H341 | Suspected of causing genetic defects. |
| H350i | May cause cancer by inhalation. |
| H360D | May damage the unborn child. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| EUH071 | Corrosive to the respiratory tract. |
| EUH208 | Contains nickel dinitrate. May produce an allergic reaction. |

Further Information

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

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