

Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 1 of 13

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

1.1. Product identifier

Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

UFI:

NEGX-711K-V008-D6KG

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 | |
| <u>1.4. Emergency telephone</u> number: | Exposure, or Accident Call CHEMTF | ous Goods] Incidents Spill, Leak, Fire, REC Day or Night Within USA and Canada: Canada: +1 703-741-5970 (collect calls |

Further Information

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation Hazard components for labelling nitric acid Signal word: Danger

Pictograms:





Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

| Revision date: 18.01.2024 |
|---------------------------|
|---------------------------|

Product code: 21844

Page 2 of 13

Hazard statements

| H290 | May be corrosive to metals. |
|---------------------------------|---|
| H314 | Causes severe skin burns and eve damage. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Precautionary statemer | nts |
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves and eye/face protection. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER/doctor. |
| One sight take the set of a set | |

Special labelling of certain mixtures

EUH071 Corrosive to the respiratory tract.

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 | | | | | |
|------------|--|------------------------------------|------------------|------------|--|--|
| | EC No | Index No | REACH No | | | |
| | Classification (GB CLP Regulation) | | | | | |
| 7697-37-2 | nitric acid | | | 5 - < 10 % | | |
| | 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 H | H314 EUH071 | | | |
| 10031-43-3 | Copper(II) nitrate trihydrate | | | | | |
| | | | 01-2119969290-34 | | | |
| | Ox. Sol. 2, Acute Tox. 4, Skin Irrit. H315 H319 H400 H410 | tic Chronic 1; H272 H302 | | | | |
| 7761-88-8 | silver nitrate | | < 0.001 % | | | |
| | 231-853-9 | 047-001-00-2 | 01-2119513705-43 | | | |
| | Ox. Sol. 2, Met. Corr. 1, Skin Corr. H290 H314 H318 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 | | | | |
| 7697-37-2 | 231-714-2 nitric acid | | | | |
| | inhalation: ATE 2,65 mg/l (vapours) Ox. Liq. 3; H272: >= 65 - 100 Skin Corr. 1A; H314: >= 20 - 100 Skin Corr. 1B; H314: >= 5 - < 20 | | | | |
| 10031-43-3 | | Copper(II) nitrate trihydrate | 1 - < 5 % | | |
| | oral: ATE = 500 mg/kg | | | | |
| 7761-88-8 | 231-853-9 | silver nitrate | < 0.001 % | | |
| | dermal: LD50 = > 348 mg/kg; oral: LD50 = > 2000 mg/kg Aquatic Acute 1; H400: M=1000 Aquatic Chronic 1; H410: M=100 | | | | |



Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 3 of 13

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. Do not allow a neutralisation agent to be drunk. Call a physician immediately.

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

Causes burns. Irritant Cough Dyspnoea Vomiting Methaemoglobinaemia Risk of serious damage to eyes.

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

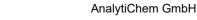
no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids Hazardous combustion products In case of fire may be liberated: Nitrogen oxides (NOx)

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.





Safety Data Sheet

according to UK REACH Regulation

Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 4 of 13

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

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.

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

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. Provide adequate ventilation. Avoid contact with skin, eyes and clothes. Do not breathe vapour/aerosol. Use extractor hood (laboratory).

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



Safety Data Sheet

according to UK REACH Regulation

| Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l |
|--|
|--|

Revision date: 18.01.2024

Product code: 21844

Page 5 of 13

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

Hints on joint storage

national regulations

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

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|-----------|-------------|-----|-------|-----------|---------------|--------|
| 7697-37-2 | Nitric acid | 1 | 2.6 | | STEL (15 min) | WEL |

DNEL/DMEL values

| CAS No | Substance | | _ | |
|--------------|----------------|----------------|----------|----------------------|
| DNEL type | | Exposure route | Effect | Value |
| 7761-88-8 | silver nitrate | | | |
| Consumer DNE | EL, long-term | oral | | 0,02 mg/kg bw/day |
| Worker DNEL, | long-term | inhalation | systemic | 0,016 mg/m³ |
| Consumer DNE | EL, long-term | inhalation | systemic | 0,006 mg/m³ |



Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 6 of 13

PNEC values

| CAS No | Substance | | | | | |
|--|-------------------------------|--------------|--|--|--|--|
| Environmenta | al compartment | Value | | | | |
| 10031-43-3 | Copper(II) nitrate trihydrate | | | | | |
| Freshwater | Freshwater | | | | | |
| Marine water | | 0,0052 mg/l | | | | |
| Freshwater s | ediment | 87 mg/kg | | | | |
| Marine sedim | 676 mg/kg | | | | | |
| Micro-organisms in sewage treatment plants (STP) 0,23 mg/l | | | | | | |
| Soil | | 65 mg/kg | | | | |
| 7761-88-8 | silver nitrate | | | | | |
| Freshwater | | 0,00004 mg/l | | | | |
| Marine water | | 0,00086 mg/l | | | | |
| Freshwater s | ediment | 438,13 mg/kg | | | | |
| Marine sedim | 438,13 mg/kg | | | | | |
| Micro-organis | 0,025 mg/l | | | | | |
| Soil | | 1,41 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

goggles

Wear eye/face protection.

Hand protection

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: 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) 0,11mm 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.



Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 7 of 13

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: | like: Nitric acid | |
| Odour threshold: | No data available | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and | | No data available |
| boiling range: | | |
| 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 | | |
| Partition coefficient n-octanol/water: | | No data available |
| Vapour pressure: | | No data available |
| Vapour pressure: | | No data available |
| Density: | | 1,0301 g/cm ³ |
| Bulk density: | | No data available |
| Relative vapour density: | | No data available |
| 9.2. Other information | | |
| Information with regard to physical haz | zard classes | |
| Explosive properties | | |
| No data available | | |
| Sustaining combustion: | | No data available |
| Self-ignition temperature Solid: | | No data available |
| Gas: | | No data available No data available |
| Oxidizing properties | | |
| Oxidizing | | |
| Other safety characteristics | | |
| Evaporation rate: | | No data available |
| • | | |
| Solvent separation test: Solvent content: | | No data available 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 |
| , , , <u></u> | | |



an analytichem brand

Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 8 of 13

No data available

Flow time:

Further Information

Corrosive to metals.

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals. Oxidising agent

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Alkali (lye)

The product develops hydrogen in an aqueous solution in contact with metals. Amines, Ammonia, Alcohols, Alkali metals, Hydrogen peroxide Copper, Combustible solids, Solvent, Alkaline earth metal, mercury (Hg).

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 as defined in GB CLP Regulation

Toxicocinetics, metabolism and distribution

There are no data available on the preparation/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



Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 9 of 13

| CAS No | Chemical name | | | | | | | | |
|------------|---------------------------------|---------------------|---|------------|---|--------------------|--|--|--|
| | Exposure route | Dose | | Species | Source | Method | | | |
| 7697-37-2 | nitric acid | nitric acid | | | | | | | |
| | inhalation vapour ATE 2,65 mg/l | | | | | | | | |
| 10031-43-3 | Copper(II) nitrate trihydra | te | | | | | | | |
| | oral | ATE 500 mg/kg | | | | | | | |
| 7761-88-8 | silver nitrate | | | | | | | | |
| | oral | LD50 > 200 mg/kg | 0 | Rat | Study report (1993) | OECD Guideline 401 | | | |
| | dermal | LD50 > 348 mg/kg | 1 | Guinea pig | J. Vet. Med. Sci.73: 1417 - 1423. (2011) | OECD Guideline 434 | | | |

Irritation and corrosivity

Causes severe skin burns and eye damage. Causes serious eye damage. Corrosive to the respiratory tract. Following ingestion Gastric perforation Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract. Irritating to respiratory system. Pulmonary oedema see also Section 4

Sensitising effects

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

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 preparation/mixture itself.

Additional information on tests

There are no data available on the preparation/mixture itself.

Practical experience

There are no data available on the preparation/mixture itself.

11.2. Information on other hazards

Other information

There are no data available on the preparation/mixture itself.

Further information

There are no data available on the preparation/mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.



Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 10 of 13

| CAS No | Chemical name | | | | | | | |
|------------|-----------------------------|-------------------|-----------|-----------|--|--|--|--|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method | |
| 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 | |
| 10031-43-3 | Copper(II) nitrate trihydra | te | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 0,193 | 96 h | Pimephales promelas | Study report (1996) | measurements were conducted by standard | |
| | Acute algae toxicity | ErC50 mg/l | 0,152 | 72 h | Pseudokirchneriella subcapitata | Publication (2005) | OECD Guideline 201 | |
| | Acute crustacea toxicity | EC50 mg/l | 0,007 | 48 h | Daphnia magna | Study report (1978) | - Test were conducted on Daphnia magna t | |
| | Fish toxicity | NOEC mg/l | 0,123 | 12 d | Atherinops affinis | Mar. Environ. Res. 31: 17-35 (1991) | Three tests are reported, designed to de | |
| | Algae toxicity | NOEC mg/l | 0,0102 | 19 d | other aquatic plant: giant kelp Macrocystis pyrife | Mar. Ecol. Prog. Ser. 68: 147 - 156 (199 | Tests were conducted to determine the ef | |
| | Crustacea toxicity | NOEC mg/l | 0,033 | 14 d | Penaeus mergulensis and Penaeus monodon | Bull. Environ. Contain. Toxicol. (1995) | The effects of dissolved copper on the g | |
| 7761-88-8 | silver nitrate | | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 0,0012 | 96 h | Pimephales promelas | Environmental Toxicology and Chemistry. | A guideline was not specified. The test | |
| | Acute algae toxicity | ErC50 mg/l | 0,0099 | 96 h | Pseudokirchneriella subcapitata | Environmental Science and Technology. 44 | eline: U.S. Environmental Protection Age | |
| | Acute crustacea toxicity | EC50 mg/l | 0,00022 | 48 h | Daphnia magna | Environmental Toxicology and Chemistry. | The protective effect of reactive sulphi | |
| | Fish toxicity | NOEC 0,00125 m | > ng/l | 73 d | Oncorhynchus mykiss | Environmental Toxicology and Chemistry 2 | other: ASTM 1241-98 | |
| | Algae toxicity | NOEC mg/l | 0,0012 | 14 d | Champia parvula | in Bishop WE, Cardwell RD Heidolph BB (E | The toxicity tests lasted 11 days for th | |
| | Crustacea toxicity | NOEC mg/l | 0,00031 | 20 d | Isonychia bicolour | Environmental Toxicology and Chemistry. | 20 day sublethal effects on representati | |

12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential



Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 11 of 13

There are no data available on the mixture itself.

BCF

| CAS No | Chemical name | BCF | Species | Source |
|------------|-------------------------------|-----------|-----------------|----------------------|
| 10031-43-3 | Copper(II) nitrate trihydrate | 0,02 - 20 | Crangon crangon | Symp. Biologica. Hun |
| 7761-88-8 | silver nitrate | 70 | Cyprinus carpio | Water, Air and Soil |

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. 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

Discharge into the environment must be avoided. Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted.

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 empty into 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 2031 |
|-----------------------------------|-------------|
| 14.2. UN proper shipping name: | NITRIC 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) | |
| 14.1. UN number or ID number: | UN 2031 |
| 14.2. UN proper shipping name: | NITRIC ACID |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | II |
| Hazard label: | 8 |
| Classification code: | C1 |
| | |

I



Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

| Limited quantity: Excepted quantity: | 1 L E2 | | |
|---|-------------|-----------|--|
| Excepted quantity: | E2 | | |
| | | | |
| Marine transport (IMDG) | | | |
| 14.1. UN number or ID number: | UN 2031 | | |
| 14.2. UN proper shipping name: | NITRIC 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 2031 | | |
| 14.2. UN proper shipping name: | NITRIC ACID | | |
| 14.3. Transport hazard class(es): | 8 | | |
| 14.4. Packing group: | II | | |
| Hazard label: | 8 | | |
| Special Provisions: | A212 | | |
| Limited quantity Passenger: | Forbidden | | |
| Passenger LQ: | Forbidden | | |
| Excepted quantity: | E0 | | |
| IATA-packing instructions - Passenger: | | Forbidden | |
| IATA-max. quantity - Passenger: | | Forbidden | |
| IATA-packing instructions - Cargo: | | 855 | |
| IATA-max. quantity - Cargo: | | 30 L | |

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 75

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

Acquisition, introduction, possession or use of this product by the general public is restricted 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

| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile |
|--------------------------|---|
| | work protection guideline' (94/33/EC). |
| Water hazard class (D): | 2 - obviously hazardous to water |

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,9.



Multielement-Standardlösung 1 27 Elemente in Salpetersäure 1 mol/l

Revision date: 18.01.2024

Product code: 21844

Page 13 of 13

Abbreviations and acronyms

Ox. Liq: Oxidising liquids Ox. Sol: Oxidising solids Met. Corr: Corrosive to metals Acute Tox: Acute toxicity Skin Corr: Skin corrosion Skin Irrit: Skin irritation Eye Dam: Eye damage Eye Irrit: Eye irritation Aquatic Acute: Acute aquatic hazard Aduatic Chronic: Chronic aquatic hazard

Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification | Classification procedure |
|-------------------------|--------------------------|
| Met. Corr. 1; H290 | On basis of test data |
| Skin Corr. 1B; H314 | Calculation method |
| Eye Dam. 1; H318 | Calculation method |
| Aquatic Chronic 3; H412 | 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. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH071 | Corrosive to the respiratory tract. |
| | |

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 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.)