

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Salpetersäure 65 % zur Analyse

Revision date: 16.02.2024

Product code: 31628

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

1.1. Product identifier

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UFI: NEKT-826M-K006-D7YQ

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

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

Ox. Liq. 3; H272

Met. Corr. 1; H290

Acute Tox. 3; H331

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

nitric acid

Signal word: Danger

Pictograms:



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Hazard statements

H272 May intensify fire; oxidiser.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.

Precautionary statements

P260
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.

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 | | | Quantity |
|-----------|-----------------------------------------------------------------------------------|--------------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 7697-37-2 | nitric acid | | | 65 - < 70 % |
| | 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 | | | |

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 | 65 - < 70 % |
| | 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 | | |

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.

After inhalation

Provide fresh air. Medical treatment necessary.

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After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of 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.

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

Irritant — skin irritation and eye damage
Causes burns.
Cough
Dyspnoea
Risk of serious damage to eyes.
Vomiting
Methaemoglobinaemia

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

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.
Do not inhale explosion and combustion gases.
Avoid contact with skin, eyes and clothes.

Additional information

Suppress gases/vapours/mists with water spray jet.
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.

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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.
Clean contaminated articles and floor according to the environmental legislation.

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

If handled uncovered, arrangements with local exhaust ventilation have to be used.
Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Keep container tightly closed.
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

Keep away from: Combustible substance

Advice on general occupational hygiene

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.

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.
Provide adequate ventilation as well as local exhaustion at critical locations.
Keep in a cool place.

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Hints on joint storage

Keep away from combustible material.

Further information on storage conditions

Unsuitable container/equipment material: Metal

Store in a place accessible by authorized persons only.

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) | |

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. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection:

Face protection shield
goggles.

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 890 Vitoject®

Suitable material: FKM (fluoro rubber) 0,7mm

Wearing time with permanent contact: >480min

By short-term hand contact

Trade name/designation KCL 897 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,3mm

Wearing time with occasional contact (splashes): >120min

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

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(e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.

Respiratory protection

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

In case of inadequate ventilation wear respiratory protection.

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: | stinging | |
| Melting point/freezing point: | | not determined |
| Boiling point or initial boiling point and boiling range: | | 122 °C |
| Flammability: | | not applicable |
| Lower explosion limits: | | not determined |
| Upper explosion limits: | | not determined |
| Flash point: | | X |
| Auto-ignition temperature: | | No data available |
| Decomposition temperature: | | not determined |
| pH-Value (at 20 °C): | | <1 |
| Viscosity / kinematic: | | No data available |
| Solubility in other solvents | | not determined |
| Partition coefficient n-octanol/water: | | not determined |
| Vapour pressure: | | 9,4 hPa |
| (at 20 °C) | | |
| Vapour pressure: | | No data available |
| Density: | | 1,39 g/cm ³ |
| Bulk density: | | No data available |
| Relative vapour density: | | not determined |

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No data available

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

The product is: oxidising, Oxidising.

Other safety characteristics

Evaporation rate:

not determined

Solid content:

not determined

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

No data available

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Flow time:

No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals. oxidising, Oxidising.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Combustible substance, Alkali metals, Alkaline earth metal, Heavy metals, Metal powder, Acid, Base.

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Keep away from: Metal. Keep away from combustible material.

Cellulose

The product develops hydrogen in an aqueous solution in contact with metals. Nitrogen oxides (NOx)

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

There are no data available on the mixture itself.

Acute toxicity

Toxic if inhaled.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 4,620 mg/l; ATE (inhalation dust/mist) 0,7690 mg/l

| CAS No | Chemical name | | | | |
|-----------|-------------------|---------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 7697-37-2 | nitric acid | | | | |
| | inhalation vapour | ATE 2,65 mg/l | | | |

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Corrosive to the respiratory tract.

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.

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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

Adverse human health effects and symptoms

gastric perforation

Pulmonary oedema

see also Section 4

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.

| 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 |

12.2. Persistence and degradability

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

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

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

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

Avoid release to the environment.

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+5.1 |
| Classification code: | CO1 |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |
| Transport category: | 2 |
| Hazard No: | 85 |
| 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+5.1 |
| Classification code: | CO1 |
| Limited quantity: | 1 L |
| 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+5.1 |
| Special Provisions: | - |
| Limited quantity: | 1 L |
| Excepted quantity: | E2 |

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EmS: F-A, S-Q

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+5.1 | |
| Special Provisions: | A1 | |
| 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 |

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Oxidising substances. 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

Information according to Directive H2 ACUTE TOXIC

2012/18/EU (SEVESO III):

Additional information: P8

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): 1 - slightly hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,9,12.

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Abbreviations and acronyms

Ox. Liq: Oxidising liquid
 Met. Corr: Substance or mixture corrosive to metals
 Acute Tox: Acute toxicity
 Skin Corr: Skin corrosion
 Eye Dam: Eye damage
 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 |
|---------------------|--------------------------|
| Ox. Liq. 3; H272 | On basis of test data |
| Met. Corr. 1; H290 | On basis of test data |
| Acute Tox. 3; H331 | Calculation method |
| 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.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.
 H331 Toxic if inhaled.
 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 data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)