

Multielement-Standardlösung Salz 10

Revision date: 05.07.2022

Product code: 30290

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

1.1. Product identifier

Multielement-Standardlösung Salz 10

UFI: TJVP-12PF-S001-AG9D

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

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)

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

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:



Hazard statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements

P260
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.

Safety Data Sheet

according to UK REACH Regulation

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P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Special labelling of certain mixtures

EUH071 Corrosive to the respiratory tract.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | | | Quantity |
|-----------|---|--------------|------------------|-------------|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP Regulation) | | | |
| 7631-99-4 | sodium nitrate | | | 10 - < 15 % |
| | 231-554-3 | | 01-2119488221-41 | |
| | Ox. Sol. 3, Eye Irrit. 2; H272 H319 | | | |
| 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 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 | | |
| 7631-99-4 | 231-554-3 | sodium nitrate | 10 - < 15 % |
| | dermal: LD50 = > 5000 mg/kg; oral: LD50 = ca. 3430 mg/kg | | |
| 7697-37-2 | 231-714-2 | nitric acid | 5 - < 10 % |
| | 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 | | |

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.

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. If skin irritation occurs: Get medical advice/attention.

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.

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

No information available.

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.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Corrosive to metals.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

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

For emergency responders

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

6.2. Environmental precautions

No special environmental measures are necessary. 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

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

Advice on protection against fire and explosion

No special fire protection measures are necessary.

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.

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 exhaustion at critical locations. Unsuitable container/equipment material: Metal.

Hints on joint storage

No special measures are necessary.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|-------------|-----|-------------------|-----------|---------------|--------|
| 7697-37-2 | Nitric acid | 1 | 2.6 | | STEL (15 min) | WEL |

PNEC values

| CAS No | Substance | Value |
|--|----------------|---------|
| 7631-99-4 | sodium nitrate | |
| Micro-organisms in sewage treatment plants (STP) | | 18 mg/l |

8.2. Exposure controls

Appropriate engineering controls

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: 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.

Skin protection

Wear suitable protective clothing.

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Respiratory protection

In case of inadequate ventilation wear respiratory protection.

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: | not determined |
| Boiling point or initial boiling point and boiling range: | ? |
| Flash point: | X |

Flammability

| | |
|-------------------------|----------------|
| Solid/liquid: | not applicable |
| Gas: | not applicable |
| Lower explosion limits: | not determined |
| Upper explosion limits: | not determined |

Self-ignition temperature

| | |
|----------------------------|----------------|
| Solid: | not applicable |
| Gas: | not applicable |
| Decomposition temperature: | not determined |
| pH-Value: | <1 |

Solubility in other solvents

| | |
|--|---------------------------|
| not determined | |
| Partition coefficient n-octanol/water: | not determined |
| Vapour pressure: (at 50 °C) | <=1100 hPa |
| Density: | 1,03000 g/cm ³ |
| Relative vapour density: | not determined |

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties
Not oxidising.

Other safety characteristics

| | |
|-------------------|----------------|
| Solid content: | not determined |
| Evaporation rate: | not determined |

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

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No known hazardous reactions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

Keep away from: Metal.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

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

| CAS No | Chemical name | | | | |
|-----------|-------------------|---------------------|---------|---------------------|--------------------|
| | Exposure route | Dose | Species | Source | Method |
| 7631-99-4 | sodium nitrate | | | | |
| | oral | LD50 ca. 3430 mg/kg | Rat | Study report (1980) | OECD Guideline 401 |
| | dermal | LD50 > 5000 mg/kg | Rat | Study report (2000) | OECD Guideline 402 |
| 7697-37-2 | nitric acid | | | | |
| | inhalation vapour | ATE 2,65 mg/kg | | | |

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

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.

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

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| CAS No | Chemical name | | | | | |
|-----------|--------------------------|--------------------|-----------|--|--|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7631-99-4 | sodium nitrate | | | | | |
| | Acute fish toxicity | LC50 > 100 mg/l | 96 h | Oncorhynchus mykiss | Study report (2000) | OECD Guideline 203 |
| | Acute crustacea toxicity | EC50 3581 mg/l | 48 h | Daphnia magna | J. Water Pollut. Control Fed. 37(9):1308 | no data |
| | 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 |
| 7697-37-2 | nitric acid | | | | | |
| | Acute fish toxicity | LC50 1559 mg/l | 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 > 419 mg/l | 10 d | several benthic diatoms; see results | Marine Biology 43:307-315 (1977) | Ten cultures of benthic diatoms were iso |
| | Acute bacteria toxicity | (EC50 > 1000 mg/l) | 3 h | Activated sludge | Study report (2008) | OECD Guideline 209 |

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

The product has not been tested.

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

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information

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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 |
| 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 |
| 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 |

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

Safety Data Sheet

according to UK REACH Regulation

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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

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

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,9,11.

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%

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. |
| H319 | Causes serious eye irritation. |
| 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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)