

# **Safety Data Sheet**

according to Regulation (EC) No 1907/2006

# Kalium-Natrium-Stickstoffstandardlösung 5 meq K + 2,5 meq Na + 5 meq N jeweils pro 100 g Rübe

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

#### 1.1. Product identifier

Kalium-Natrium-Stickstoffstandardlösung 5 meq K + 2,5 meq Na + 5 meq N jeweils pro 100 g Rübe

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

#### Use of the substance/mixture

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

#### 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** For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

number: 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

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

## 2.2. Label elements

#### 2.3. Other hazards

No data available

## **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures

#### **Chemical characterization**

Mixtures in aqueous solution



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#### Relevant ingredients

| CAS No    | Chemical name                                 |          |                  |  |  |
|-----------|---|----------|------------------|--|--|
|           | EC No   | Index No | REACH No         |  |  |
|           | Classification (Regulation (EC) No 1272/2008) |          |                  |  |  |
| 7447-40-7 | potassium chloride                            |          |                  |  |  |
|           | 231-211-8                                     |          |                  |  |  |
|           |   |          |                  |  |  |
| 7647-14-5 | sodium chloride                               |          |                  |  |  |
|           | 231-598-3                                     |          | 01-2119485491-33 |  |  |
|           |   |          |                  |  |  |

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              |                    |          |  |  |  |
| 7447-40-7 | 231-211-8   | potassium chloride |          |  |  |  |
|           | oral: LD50 = ca. 2600 mg/kg                           |                    |          |  |  |  |
| 7647-14-5 | 231-598-3   | sodium chloride    | < 0.1 %  |  |  |  |
|           | dermal: LD50 = > 10000 mg/kg; oral: LD50 = 3550 mg/kg |                    |          |  |  |  |

#### **Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

# **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### **General information**

No data available

# After inhalation

Provide fresh air.

# After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

## After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

# After ingestion

Rinse mouth immediately and drink plenty of water.

Call a doctor if you feel unwell.

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

No data available

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

No data available

# **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media



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#### 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

#### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

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

#### 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 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

Handle and open container with care.

Do not breathe vapour/aerosol.

Avoid contact with skin, eyes and clothes.

# Advice on protection against fire and explosion

Usual measures for fire prevention.

## Advice on general occupational hygiene

Wash contaminated clothing prior to re-use.



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Do not breathe vapour/aerosol.

Avoid contact with skin, eyes and clothes.

## Further information on handling

Wash contaminated clothing before reuse.

Wash hands before breaks and after work.

## 7.2. Conditions for safe storage, including any incompatibilities

# Requirements for storage rooms and vessels

Keep container tightly closed.

## Hints on joint storage

No data available

#### Further information on storage conditions

Store in a dry place.

# 7.3. Specific end use(s)

Laboratory chemicals

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

## 8.1. Control parameters



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## **DNEL/DMEL values**

| CAS No                   | Substance            |                |          |                           |  |  |
|--------------------------|----------------------|----------------|----------|---------------------------|--|--|
| DNEL type                |                      | Exposure route | Effect   | Value                     |  |  |
| 7447-40-7                | potassium chloride   |                |          |                           |  |  |
| Worker DNEL, long-term   |                      | inhalation     | systemic | 1064 mg/m³                |  |  |
| Worker DNEL,             | acute                | inhalation     | systemic | 5320 mg/m³                |  |  |
| Worker DNEL,             | long-term            | dermal         | systemic | 303 mg/kg bw/day          |  |  |
| Worker DNEL,             | acute                | dermal         | systemic | 910 mg/kg bw/day          |  |  |
| Consumer DN              | EL, long-term        | inhalation     | systemic | 273 mg/m³                 |  |  |
| Consumer DN              | EL, acute            | inhalation     | systemic | 1365 mg/m³                |  |  |
| Consumer DN              | EL, long-term        | dermal         | systemic | 182 mg/kg bw/day          |  |  |
| Consumer DN              | EL, acute            | dermal         | systemic | 910 mg/kg bw/day          |  |  |
| Consumer DN              | EL, long-term        | oral           | systemic | 91 mg/kg bw/day           |  |  |
| Consumer DN              | EL, acute            | oral           | systemic | 455 mg/kg bw/day          |  |  |
| 7647-14-5                | sodium chloride      |                |          |                           |  |  |
| Consumer DN              | EL, long-term        | dermal         | systemic | 126,65 mg/kg<br>bw/day    |  |  |
| Consumer DN              | Consumer DNEL, acute |                | systemic | 126,65 mg/kg<br>bw/day    |  |  |
| Consumer DNEL, long-term |                      | oral           | systemic | 126,65 mg/kg<br>bw/day    |  |  |
| Consumer DNEL, acute     |                      | oral           | systemic | 126,65 mg/kg<br>bw/day    |  |  |
| Worker DNEL,             | long-term            | inhalation     | systemic | 2068,62 mg/m <sup>3</sup> |  |  |
| Worker DNEL, acute       |                      | inhalation     | systemic | 2068,62 mg/m³             |  |  |
| Worker DNEL, acute       |                      | dermal         | systemic | 295,52 mg/kg<br>bw/day    |  |  |
| Consumer DNEL, long-term |                      | inhalation     | systemic | 443,28 mg/m³              |  |  |
| Consumer DNEL, acute     |                      | inhalation     | systemic | 443,28 mg/m³              |  |  |
| Worker DNEL, long-term   |                      | dermal         | systemic | 295,52 mg/kg<br>bw/day    |  |  |

# PNEC values

| CAS No   | Substance                      |                    |  |  |  |  |  |  |
|--|--------------------------------|--------------------|--|--|--|--|--|--|
| Environment                                      | nvironmental compartment Value |                    |  |  |  |  |  |  |
| 7447-40-7  | potassium chloride             | potassium chloride |  |  |  |  |  |  |
| Freshwater                                       | 0,1 mg/l                       |                    |  |  |  |  |  |  |
| Freshwater (intermittent releases) 1 mg/l        |                                |                    |  |  |  |  |  |  |
| Marine water                                     | 0,1 mg/l                       |                    |  |  |  |  |  |  |
| Micro-organisms in sewage treatment plants (STP) |                                |                    |  |  |  |  |  |  |
| 7647-14-5  | 5 sodium chloride              |                    |  |  |  |  |  |  |
| Freshwater                                       | 5 mg/l                         |                    |  |  |  |  |  |  |
| Micro-organisms in sewage treatment plants (STP) |                                |                    |  |  |  |  |  |  |
| Soil   | 4,86 mg/kg                     |                    |  |  |  |  |  |  |



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#### 8.2. Exposure controls

#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

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

#### Eye/face protection

goggles

#### Hand protection

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

Recommended glove articles: KCL 741 Dermatril® L Recommended material: NBR (Nitrile rubber) 0,11mm Wearing time with permanent contact: >480min

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): >480min

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.

Wash hands before breaks and after work.

## Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

## **Environmental exposure controls**

Discharge into the environment must be avoided.

## **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state:

Colour:

Odour:

Odour threshold:

Liquid

clear

odourless

No data available

Melting point/freezing point:

No data available

Boiling point or initial boiling point and

No data available

boiling range:

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



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Decomposition temperature: No data available

pH-Value: 4,

Viscosity / kinematic:

Water solubility:

No data available

No data available

Solubility in other solvents

No data available

Partition coefficient n-octanol/water:

Vapour pressure:

Vapour pressure:

No data available

Relative vapour density:

No data available

## 9.2. Other information

## Information with regard to physical hazard classes

Explosive properties

No data available

Sustained combustibility: No data available

Self-ignition temperature

Solid: No data available
Gas: No data available

Oxidizing properties

No data available

#### Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available

Solvent content:

Solid content:

Sublimation point:

No data available

No data available

No data available

Sublimation point:

Softening point:

No data available

No data available

Pour point:

No data available

No data available

No data available:

Viscosity / dynamic: No data available Flow time: No data available

**Further Information** 

No data available

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No data available

# 10.2. Chemical stability

No data available

# 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

No data available

# 10.5. Incompatible materials

No data available



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# 10.6. Hazardous decomposition products

No data available

#### **Further information**

No data available

# **SECTION 11: Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

# Toxicocinetics, metabolism and distribution

There are no data available on the 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

| CAS No    | Chemical name      |               |          |                                 |  |   |  |
|-----------|--------------------|---------------|----------|---------------------------------|--|---|--|
|           | Exposure route     | Dose          |          | Species                         | Source   | Method  |  |
| 7447-40-7 | potassium chloride |               |          |                                 |  |   |  |
|           | oral               | LD50<br>mg/kg | ca. 2600 | rat, guinea pig,<br>sheep, goat | J Pharmacol Exp<br>Therap 35, 1-15, 1929<br>(1 |   |  |
| 7647-14-5 | sodium chloride    |               |          |                                 |  |   |  |
|           | oral               | LD50<br>mg/kg | 3550     | Rat                             | Study report                                   | The study<br>methodology followed<br>appeared |  |
|           | dermal             | LD50<br>mg/kg | > 10000  | Rabbit                          | Study report                                   | The study methology followed appeared to      |  |

## Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

# Sensitising effects

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

# Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

## STOT-single exposure

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

## STOT-repeated exposure

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.

## Additional information on tests

There are no data available on the mixture itself.



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#### 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**

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                |
| 7447-40-7 | potassium chloride       |                  |          |           |                               |  |                       |
|           | Acute fish toxicity      | LC50             | 880 mg/l | 96 h      | Pimephales<br>promelas        | Environmental<br>Toxicology and<br>Chemistry,  | OECD Guideline<br>203 |
|           | Acute algae toxicity     | ErC50<br>mg/l    | > 100    | 72 h      | Desmodesmus subspicatus       | Study report<br>(2010)                         | OECD Guideline<br>201 |
|           | Acute bacteria toxicity  | EC50<br>mg/l ( ) | > 1000   | 3 h       | activated sludge,<br>domestic | Study report<br>(2010)                         | OECD Guideline<br>209 |
| 7647-14-5 |                          |                  |          |           |                               |  |                       |
|           | Acute fish toxicity      | LC50<br>mg/l     | 5840     | 96 h      | Lepomis macrochirus           | Study report<br>(1985)                         | other: ASTM E729      |
|           | Acute crustacea toxicity | EC50<br>mg/l     | 4136     | 48 h      | Daphnia magna                 | J. fish. Res. Bd.<br>Canada, 29:<br>1691-1700. | OECD Guideline<br>202 |
|           | Fish toxicity            | NOEC             | 252 mg/l | 33 d      | Pimephales<br>promelas        | Study report<br>(1985)                         | OECD Guideline<br>210 |
|           | Crustacea toxicity       | NOEC             | 314 mg/l | 21 d      | Daphnia pulex                 | Memorandum of agreement No. 5429, Kentuc       | OECD Guideline<br>211 |

# 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.

#### 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.

# 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

There are no data available on the mixture itself.



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#### **Further information**

Discharge into the environment must be avoided.

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

#### **Disposal recommendations**

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

#### Contaminated packaging

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**

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

## Inland waterways transport (ADN)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

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

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

# 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

## **SECTION 15: Regulatory information**

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

## **National regulatory information**

Water hazard class (D): -- non-hazardous to water

Additional information

No data available



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## **SECTION 16: Other information**

## Changes

This data sheet contains changes from the previous version in section(s): 3,9,12,15.

#### **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. Provide appropriate information, instructions and training to users

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