

Date of issue: 20.03.2009

n.ap. = not applicable

n.av. = not available

Version: 0019

# SI Analytics

## 1. Identification of the substance/preparation and of the company/undertaking

### 1.1 Identification of the substance or preparation

Trade name **Kaliumnitrat-Lösung**Product number **scho0002**Substance code **L 2114**

### 1.2 Use of the substance/preparation

The product is used as a laboratory chemical.

### 1.3 Company/undertaking identification

Address: SI Analytics GmbH

Geb. G12

Hattenbergstrasse 10

D-55122 Mainz

Information: Telephone: int+49-(0)6131-66-5051 or -5116

Fax: int+49-(0)6131-66-5001

e-mail-address of the competent person responsible for this Safety Data Sheet:

urban-finking.gefstoff@t-online.de

### 1.4 Emergency telephone

Beratungsstelle für Vergiftungserscheinungen und Embryonaltoxikologie, Berlin

Telephone: int+49-(0)30 - 19240

## 2. Hazards identification

### 2.1 Hazards identification

The product is not dangerous within the meaning of the current version of Directive 1999/45/EC.

### 2.2 Critical hazards to man

No special hazards have to be mentioned.

### 2.3 Critical hazards to the environment

The product is classified as low hazardous to water.

## 3. Composition/information on ingredients

This product is a preparation. It is an aqueous solution of potassium nitrate and potassium chloride.

### 3.1 Substances presenting a health / environmental hazard within the meaning of Directive 67/548/EEC

CAS number	EC number	Identification	m %	Symbols	R phrases
7757-79-1	231-818-8	potassium nitrate	< 20	O	8

For further details see heading 15.

Full text of the R phrases see heading 16.2.

### 3.2 Substances for which there are Community workplace exposure limits, which are not already included under heading 3.1 (see also heading 8.)

No substances.

### 3.3 Additional information

None.

## 4. First aid measures

### 4.1 General information

Change soaked clothing.

### 4.2 after inhalation

Ensure supply of fresh air.

### 4.3 after contact with skin

In case of contact with skin wash off immediately with plenty of water.

### 4.4 after contact with eyes

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

### 4.5 after ingestion

Seek medical advice immediately.

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**4.6 Hints for the physician****Symptoms**

Gastrointestinal complaints, nausea, vomiting, methaemoglobinaemia, headache, shortness of breath, convulsions.

**Hazards**

Risk of pulmonary oedema (nitrous gases).

**Treatment**

Treat symptomatically.

**4.7 First aid equipment**

Emergency eyewash should be provided in the immediate working surroundings.

**4.8 Additional remarks**None.

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**5. Fire-fighting measures****5.1 Suitable extinguishing media**

Water spray jet, carbon dioxide, dry powder, foam.

**5.2 Extinguishing media which must not be used for safety reasons**

Full water jet.

**5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases**

In case of fires, hazardous combustion gases are formed: nitrous gases.

**5.4 Special protective equipment for fire-fighters**

Use self-contained breathing apparatus.

**5.5 Further information**

Do not inhale explosion and/or combustion gases.

Cool endangered containers with water spray jet.

Contaminated firefighting water must be disposed of in accordance with the local regulations.

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**6. Accidental release measures****6.1 Personal precautions** (see also heading 8., Personal protective equipment)

Keep away sources of ignition.

**6.2 Environmental precautions** (see also heading 13., Disposal considerations)

Do not discharge into the drains/surface waters/groundwater.

**6.3 Methods for cleaning up**

Pick up with absorbent material (e.g. Chemisorb) and dispose of in accordance with the regulations.

**6.4 Additional information**None.

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**7. Handling and storage** (National measures see headings 15. and 16.)**7.1 Handling****7.1.1 Advice on safe handling**

Open and handle container with care.

**7.1.2 Advice on protection against fire and explosion**

Keep away from sources of ignition. Do not smoke.

**7.2 Storage****7.2.1 Requirements for storage rooms and vessels**

Keep container tightly closed.

**7.2.2 Advice on storage compatibility**

Do not store together with combustible materials.

**7.2.3 Further information on storage conditions**

Recommended storage temperature: 15 - 25°C.

**7.2.4 Storage class (for Germany only)**

LGK 12 (Non-flammable liquids) in accordance with the VCI Guideline for the mixed storage of chemicals.

**7.3 Specific use(s)**No information about specific uses available.

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**8. Exposure controls/Personal protection****8.1 Exposure limit values**

CAS number	Identification	Limit value	Remarks
7757-79-1	potassium nitrate	5 mg/m <sup>3</sup>	national limit value – eight hours for Lithuania

**8.2 Exposure controls**

See also heading 7.1.

**Additional advice on system design**

No additional advice.

**8.2.1 Occupational exposure controls****Personal protective equipment****Respiratory protection**

n.ap.

**Hand protection**

Protective gloves.

Suitable:

natural rubber (0.5 mm; breakthrough time ≥ 8 h);  
 neoprene (0.5 mm; breakthrough time ≥ 8 h);  
 nitrile rubber (0.35 mm; breakthrough time ≥ 8 h);  
 butyl rubber (0.5 mm; breakthrough time ≥ 8 h);  
 fluorinated rubber (0.4 mm; breakthrough time ≥ 8 h);  
 PVC (0.5 mm; breakthrough time ≥ 8 h).

**Eye protection**

Safety glasses.

**Body protection**

Light protective clothing.

**General protective measures and hygiene measures**

Do not inhale vapour. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately.

At work do not eat, drink, smoke. When handling the product do not consume alcohol.

Wash hands before breaks and after work. Use barrier skin cream.

Emergency eyewash should be provided in the immediate working surroundings.

**8.2.2 Environmental exposure controls**

See heading 6.

**9. Physical and chemical properties****9.1 General information****Physical state:** liquid**Colour:** colourless**Odour:** odourless**9.2 Important health, safety and environmental information**

pH (as supplied): neutral (of an aqueous solution): neutral

Boiling point / boiling range (°C): approx. +104

Melting point (°C): approx. -6

Thermal decomposition: n.av.

Flash point (°C), c.c.: n.ap.

Ignition temperature (°C): n.ap.

Lower explosion limit: n.ap.

Upper explosion limit: n.ap.

Vapour pressure: approx. 21 mbar (25°C)

Relative density / bulk density: 1.118 g/cm<sup>3</sup>

Solubility in water: soluble

Viscosity (25°C): 1.2 mm<sup>2</sup>/s**9.3 Other information**

None

**10. Stability and reactivity****10.1 Conditions to avoid**

If product is heated risk of drying out of the solution.

**10.2 Materials to avoid**

Reactions with combustible substances.

**10.3 Hazardous decomposition products**

If product is heated above decomposition temperature toxic vapours may be released (nitrous gases).

Hazardous decomposition products: nitrous gases, potassium nitrite.

**10.4 Additional information**

None.

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Product number: **scho0002****11. Toxicological information****11.1 Toxicokinetics, metabolism and distribution**

No data are available for the product.

**11.2 Acute effects (acute toxicity, irritation and corrosivity)**

LD50 rat, oral	(mg/kg)	3015	(potassium nitrate)	(external safety data sheet)
LD50 rabbit, dermal	(mg/kg)	n.av.		
LC50 rat, inhalation	(mg/l/4h)	n.av.		
Irritant effect on skin		n.av.		
Irritant effect on eyes		n.av.		

**11.3 Sensitisation**

No evidence of sensitive properties of the substances contained in this product has been found.

**11.4 Repeated dose (sub-acute, sub-chronic, chronic)**

No data are available for the product.

**11.5 CMR effects (carcinogenicity, mutagenicity, toxicity for the reproduction)**

Carcinogenicity	n.av.
Mutagenicity	n.av.
Toxicity for the reproduction	n.av.

**11.6 Comprehensive evaluation of the CMR properties of substances subject to registration**

No data available.

**11.7 Experiences made in practice**

Potassium nitrate is absorbed through the mucous membranes.

**11.8 General remarks**

The product has not been tested.

**12. Ecological information****12.1 Ecotoxicity****Aquatic toxicity**

LC50	(fish)	191 mg/l/96 h (Poecilia reticulata; guppy)	(potassium nitrate)	(external safety data sheet)
EC50	(daphnia)	490 mg/l/48 h (Daphnia magna)	(potassium nitrate)	(IUCLID)
IC50	(algae)	n.av.		

**Behaviour in sewage works:**

The behaviour of the product in sewage treatment plants has not been tested.

**12.2 Mobility**

The product has not been tested.

**12.3 Persistence and degradability**

The product has not been tested.

**12.4 Bioaccumulative potential**

The product has not been tested.

**12.5 Results of PBT assessment**

No data available.

**12.6 Other adverse effects**

Ozone depletion potential	n.av.
Photochemical ozone creation potential	n.av.
Global warming potential	n.av.
AOX-hint	Not to apply.

**12.7 Further information**

Chemical oxygen demand (COD)	n.av.
Biochemical oxygen demand (BOD)	n.av.

The product is classified as low hazardous to water.

**Contains according to the formulation following compounds of directives 2006/11/EC and 80/68/EEC:**

None.

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**13. Disposal considerations****13.1 Product / unused product**

Waste disposal corresponding to European Waste Catalogue.

Wastes must be classified with respect to their origin and depending on different processing steps. The waste codes mentioned as follows are only constituted as our recommendations. Referring to the particular case they should be completed or revised.

Waste type

Wastes from inorganic chemical processes

Waste notation

Wastes from the MFSU of salts and their solutions and metallic oxides

EC waste code

06 03 14 solid salts and solutions other than those mentioned in  
06 03 11 and 06 03 13

Disposal operations

D 9 Physico-chemical treatment

Recovery operations

R 4 Recycling/reclamation of metals and metal compounds

**13.2 Contaminated packaging**

Recommendation

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed off as product waste.

Recommended cleansing agent

Water

**14. Transport information****14.1 Land transport ADR / RID**

No dangerous good in accordance with the regulations.

**14.2 Marine transport / IMDG-Code**

No dangerous good in accordance with the regulations.

**14.3 Air transport ICAO / IATA-DGR**

No dangerous good in accordance with the regulation.

**15. Regulatory information****15.1 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for a substance in the product.

**15.2 Labelling in accordance with Directive EC**

Symbol(s) of danger:

n.ap.

Indication(s) of danger:

n.ap.

Hazardous component(s) to be indicated on label:

n.ap.

R phrases:

n.ap.

S phrases:

n.ap.

Special labelling for certain preparations:

**Preparations not intended for the general public** (the label on the packaging must bear the following inscription):**"Safety data sheet available for professional user on request."****Remarks:** The normal safety precautions for handling of chemicals must be observed.**15.3 Further Community legislation**

None.

**15.4 National measures (for Germany only)**

Indications on restriction of occupation:

n.ap.

Major-accident Regulation:

n.ap.

Fire and explosion hazards:

n.ap.

Regulation on clean air (TA Luft):

n.ap.

Water hazard class:

1 (calculation according to KBwS)

The Federal State Enactment for Facilities to Handle  
Water Endangering Substances (German VAWS-  
Anlagenverordnung) has to be observed.

German Ordinance on Hazardous Substances  
(in accordance with Directive 98/24/EC):

Article 7 must be observed

Articles 8, 9, 14 and 15 must be observed as required

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Product number: **scho0002****16. Other information****16.1 Keeping (restrictions)**

n.ap.

**Distribution**

for industry consumer, for the general public

**16.2 Full text of the R phrases referred to under heading 3 of the Safety Data Sheet**

R8: Contact with combustible material may cause fire.

**16.3 Technical contact point****SI Analytics GmbH, Herr Dr. M. Lange****Telephone: int+49-(0)6131-66-5051****SI Analytics GmbH, Herr H. Becker****Telephone: int+49-(0)6131-66-5116****Version 0019: replacement of version 0018 dated 31.01.2009****Revised headings: page headers, 1.3, 16.3 (change of company identification)**

- 16.4** 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.

Compiled by:

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