

## Safety Data Sheet

according to UK REACH Regulation

### Potassium nitrate solution 1 mol/l - 1 N solution

Revision date: 16.08.2023

Product code: 22264

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

### 1.1. Product identifier

Potassium nitrate solution 1 mol/l - 1 N solution

### 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                 | Telefax: 0203/5194-290       |
| Street:                 | Stempelstraße 6                  |                              |
| Place:                  | D-47167 Duisburg                 |                              |
| Telephone:              | 0203/5194-0                      |                              |
| E-mail:                 | info@analytichem.de              | Telephone: 0203/5194-107/117 |
| Contact person:         | Abteilung Produktsicherheit      |                              |
| 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

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

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

### 2.2. Label elements

### 2.3. Other hazards

No data 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) |            |
| 7757-79-1 | potassium nitrate                  | 5 - < 10 % |
|           | 231-818-8                          |            |
|           | 01-2119488224-35                   |            |
|           | Ox. Sol. 3; H272                   |            |

Full text of H and EUH statements: see section 16.

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## Specific Conc. Limits, M-factors and ATE

| CAS No    | EC No     | Chemical name  | Quantity   |
|-----------|-----------|--|------------|
|           |           | Specific Conc. Limits, M-factors and ATE   |            |
| 7757-79-1 | 231-818-8 | potassium nitrate  | 5 - < 10 % |
|           |           | inhalation: LC50 = > 0,527 mg/l (dusts or mists); dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 2000 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.

In case of eye irritation consult an ophthalmologist.

## After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Methaemoglobinaemia

Irritant

Gastrointestinal complaints

Vomiting

## 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

Avoid contact with skin, eyes and clothes.

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

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#### 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

##### 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

- Handle and open container with care.
- Provide adequate ventilation.
- Avoid contact with skin, eyes and clothes.
- Do not breathe vapour/aerosol.

##### Advice on protection against fire and explosion

- Usual measures for fire prevention.

##### Advice on general occupational hygiene

- Take off contaminated clothing.
- Wash hands before breaks and after work.
- When using do not eat or drink.

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**Further information on handling**

Take off contaminated clothing and wash it 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 and dry.

**Hints on joint storage**

No data available

**Further information on storage conditions**

No data available

**7.3. Specific end use(s)**

Laboratory chemicals

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

**8.1. Control parameters**

**PNEC values**

| CAS No    | Substance  |         |
|-----------|--|---------|
|           | Environmental compartment                        | Value   |
| 7757-79-1 | potassium nitrate                                |         |
|           | Micro-organisms in sewage treatment plants (STP) | 18 mg/l |

**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**

Suitable eye protection: goggles.

**Hand protection**

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) with the following specification (test according to EN 374):

By long-term hand contact

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

By short-term hand contact

Trade name/designation KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
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](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing.  
Take off immediately all contaminated clothing.

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Wash hands before breaks and after work.

#### 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:  | odourless         |                   |
| Odour threshold:  | No data available |                   |
| Melting point/freezing point:                             |                   | No data available |
| Boiling point or initial boiling point and boiling range: |                   | No data available |
| Flammability:   |                   | No data available |
| Lower explosion limits:                                   |                   | No data available |
| Upper explosion limits:                                   |                   | No data available |
| Flash point:  |                   | X                 |
| Auto-ignition temperature:                                |                   | No data available |
| Decomposition temperature:                                |                   | No data available |
| pH-Value:   |                   | 5,3               |
| Viscosity / kinematic:                                    |                   | No data available |
| Water solubility:   |                   | No data available |
| Solubility in other solvents                              | not applicable    |                   |
| Dissolution rate:   |                   | No data available |
| Partition coefficient n-octanol/water:                    |                   | not determined    |
| Dispersion stability:                                     |                   | No data available |
| Vapour pressure:  |                   | No data available |
| Vapour pressure:  |                   | No data available |
| Density:  |                   | not applicable    |
| Relative density:   |                   | No data available |
| Bulk density:   |                   | No data available |
| Relative vapour density:                                  |                   | not determined    |
| Particle characteristics:                                 |                   | No data available |

### 9.2. Other information

#### Information with regard to physical hazard classes

|                           |                   |
|---------------------------|-------------------|
| Explosive properties      | No data available |
| Sustaining combustion:    | No data available |
| Self-ignition temperature |                   |
| Solid:                    | not applicable    |
| Gas:                      | not applicable    |
| Oxidizing properties      |                   |
| No data available         |                   |

#### Other safety characteristics

|                          |                |
|--------------------------|----------------|
| Evaporation rate:        | not determined |
| Solvent separation test: | not applicable |
| Solvent content:         | 0              |
| Solid content:           | 0              |

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|                      |                   |
|----------------------|-------------------|
| Sublimation point:   | No data available |
| Softening point:     | No data available |
| Pour point:          | 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

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

Fluorine, peroxides, for example hydrogen peroxide

Aluminium, antimony

titanium, Zinc

arsenic, boron

White/yellow phosphor, Reducing agent

SULPHUR, Acid

Metal powder, Combustible substance

### 10.4. Conditions to avoid

No data available

### 10.5. Incompatible materials

No data available

### 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

#### Toxicokinetics, 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

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| CAS No    | Chemical name              |                   |         |                           |                    |
|-----------|----------------------------|-------------------|---------|---------------------------|--------------------|
|           | Exposure route             | Dose              | Species | Source                    | Method             |
| 7757-79-1 | potassium nitrate          |                   |         |                           |                    |
|           | oral                       | LD50 > 2000 mg/kg | Rat     | Other company data (2000) | OECD Guideline 425 |
|           | dermal                     | LD50 > 5000 mg/kg | Rat     | Study report (2000)       | OECD Guideline 402 |
|           | inhalation (4 h) dust/mist | LC50 > 0,527 mg/l | Rat     | Study report (2008)       | OECD Guideline 403 |

**Irritation and corrosivity**

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**

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.

**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**

There are no data available on the mixture itself.

**Further information**

- Methaemoglobinaemia
- Irritant
- Gastrointestinal complaints
- Vomiting

**SECTION 12: Ecological information**

**12.1. Toxicity**

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

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| CAS No    | Chemical name       |                 |           |  |                     |  |
|-----------|---------------------|-----------------|-----------|--|---------------------|--|
|           | Aquatic toxicity    | Dose            | [h]   [d] | Species  | Source              | Method                                   |
| 7757-79-1 | potassium nitrate   |                 |           |  |                     |  |
|           | Acute fish toxicity | LC50 > 100 mg/l | 96 h      | Oncorhynchus mykiss                                | Study report (2000) | OECD Guideline 203                       |
|           | 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 |

#### 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 UK REACH.

#### 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

Avoid release to the environment.

#### 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.

Do not empty into drains.

##### 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

#### Land transport (ADR/RID)

##### 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.



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**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

#### 14.7. 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

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

This product is regulated 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

Water hazard class (D): 1 - slightly hazardous to water

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### Changes

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

#### 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%

Ox. Sol: Oxidising solids

#### Relevant H and EUH statements (number and full text)

H272 May intensify fire; oxidiser.

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