

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Potassium perchlorate, 50 g**

Print date: 14.04.2015

Product code: 9991524

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Potassium perchlorate, 50 g

CAS No: 7778-74-7  
Index No: 017-008-00-5  
EC No: 231-912-9

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

Laboratory chemicals

**1.3. Details of the supplier of the safety data sheet****Seller**

Company name: CONATEX-DIDACTIC Lehrmittel GmbH  
Street: Im Forstgarten 1  
Place: D-66459 Kirkel  
Internet: www.conatex.com

**Supplier**

Company name: Carbolution Chemicals GmbH  
Street: Im Stadtwald, Gebäude A1.2  
Place: D-66123 Saarbrücken  
Contact person: Dr. Michael Bauer Telephone: +49 (0)681 302-71232  
e-mail: michael.bauer@carbolution-chemicals.de  
Internet: www.carbolution-chemicals.de

**1.4. Emergency telephone number:** +49 (0)681 302-71232**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: O - Oxidizing, Xn - Harmful  
R phrases:  
Explosive when mixed with combustible material.  
Harmful if swallowed.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:  
Oxidising solid: Ox. Sol. 1  
Acute toxicity: Acute Tox. 4  
Hazard Statements:  
May cause fire or explosion; strong oxidiser.  
Harmful if swallowed.

**2.2. Label elements****Hazardous components which must be listed on the label**  
potassium perchlorate

Signal word: Danger  
Pictograms: GHS03-GHS07

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#### Hazard statements

H271 May cause fire or explosion; strong oxidiser.  
H302 Harmful if swallowed.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Sum formula: ClKO<sub>4</sub>  
Molecular weight: 138,55

#### Hazardous components

| EC No        | Chemical name                                                   | Quantity |
|--------------|-----------------------------------------------------------------|----------|
| CAS No       | Classification according to Directive 67/548/EEC                |          |
| Index No     | Classification according to Regulation (EC) No. 1272/2008 [CLP] |          |
| 231-912-9    | potassium perchlorate                                           | 100 %    |
| 7778-74-7    | O - Oxidizing, Xn - Harmful R9-22                               |          |
| 017-008-00-5 | Ox. Sol. 1, Acute Tox. 4; H271 H302                             |          |

Full text of R-, H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### After inhalation

Provide fresh air.

##### After contact with skin

Wash with plenty of water. Change contaminated clothing.

##### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

##### After ingestion

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

#### 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.

#### 5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

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#### **5.3. Advice for firefighters**

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

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

#### **6.3. Methods and material for containment and cleaning up**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

### **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 dust.

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

Keep away from sources of ignition. - No smoking.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool place. Keep away from sources of ignition. - No smoking.

##### **Advice on storage compatibility**

Keep away from combustible material.

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

#### **8.1. Control parameters**

#### **8.2. Exposure controls**

##### **Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

##### **Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

##### **Eye/face protection**

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

##### **Hand protection**

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

##### **Skin protection**

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

##### **Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must

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be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

## SECTION 9: Physical and chemical properties

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

|                 |                   |
|-----------------|-------------------|
| Physical state: | solid             |
| Colour:         | colourless        |
| Odour:          | No data available |

#### Test method

|                      |            |
|----------------------|------------|
| pH-Value (at 25 °C): | 6 13,9 g/l |
|----------------------|------------|

#### Changes in the physical state

|                                          |                   |
|------------------------------------------|-------------------|
| Melting point:                           | 400 °C            |
| Initial boiling point and boiling range: | No data available |
| Sublimation point:                       | No data available |
| Softening point:                         | No data available |
| Flash point:                             | No data available |

#### Flammability

|                         |                   |
|-------------------------|-------------------|
| Solid:                  | No data available |
| Gas:                    | No data available |
| Lower explosion limits: | No data available |
| Upper explosion limits: | No data available |
| Ignition temperature:   | No data available |

#### Auto-ignition temperature

|                                 |                   |
|---------------------------------|-------------------|
| Solid:                          | No data available |
| Gas:                            | No data available |
| Vapour pressure:                | No data available |
| Vapour pressure:                | No data available |
| Density:                        | 2,52 g/cm³        |
| Water solubility:<br>(at 20 °C) | 13,9 g/L          |
| Partition coefficient:          | No data available |
| Viscosity / dynamic:            | No data available |
| Viscosity / kinematic:          | No data available |
| Flow time:                      | No data available |
| Vapour density:                 | No data available |
| Evaporation rate:               | No data available |
| Solvent separation test:        | No data available |
| Solvent content:                | No data available |

### 9.2. Other information

|                |                   |
|----------------|-------------------|
| Solid content: | No data available |
|----------------|-------------------|

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

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### 10.3. Possibility of hazardous reactions

No data available

### 10.4. Conditions to avoid

In case of impact or pressure influence: Explosion hazard. Remove all sources of ignition. Keep away from heat. Ignition hazard.

### 10.5. Incompatible materials

Keep away from: material, combustible.

### 10.6. Hazardous decomposition products

No data available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicokinetics, metabolism and distribution

Toxicological data are not available.

#### Acute toxicity

Acute toxicity, dermal.

| CAS No    | Chemical name         |        |           |         |        |
|-----------|-----------------------|--------|-----------|---------|--------|
|           | Exposure routes       | Method | Dose      | Species | Source |
| 7778-74-7 | potassium perchlorate |        |           |         |        |
|           | oral                  | ATE    | 500 mg/kg |         |        |

#### Irritation and corrosivity

No data available

#### Sensitising effects

No data available

#### Severe effects after repeated or prolonged exposure

No data available

#### Carcinogenic/mutagenic/toxic effects for reproduction

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

#### Specific effects in experiment on an animal

No data available

#### Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

#### Practical experience

#### Observations relevant to classification

No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

No data available

### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No data available

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**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

No data available

**12.6. Other adverse effects**

No data available

**Further information**

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

**Contaminated packaging**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

|                                                 |                       |
|-------------------------------------------------|-----------------------|
| <b><u>14.1. UN number:</u></b>                  | UN1489                |
| <b><u>14.2. UN proper shipping name:</u></b>    | POTASSIUM PERCHLORATE |
| <b><u>14.3. Transport hazard class(es):</u></b> | 5.1                   |
| <b><u>14.4. Packing group:</u></b>              | II                    |
| Hazard label:                                   | 5.1                   |
| Classification code:                            | O2                    |
| Limited quantity:                               | 1 kg                  |
| Transport category:                             | 2                     |
| Hazard No:                                      | 50                    |
| Tunnel restriction code:                        | E                     |

**Other applicable information (land transport)**

E2

**Inland waterways transport (ADN)**

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**14.1. UN number:** UN1489  
**14.2. UN proper shipping name:** POTASSIUM PERCHLORATE  
**14.3. Transport hazard class(es):** 5.1  
**14.4. Packing group:** II  
Hazard label: 5.1  
Classification code: O2  
Limited quantity: 1 kg

### Other applicable information (inland waterways transport)

E2

### Marine transport (IMDG)

**14.1. UN number:** UN1489  
**14.2. UN proper shipping name:** POTASSIUM PERCHLORATE  
**14.3. Transport hazard class(es):** 5.1  
**14.4. Packing group:** II  
Hazard label: 5.1  
Special Provisions: -  
Limited quantity: 1 kg  
EmS: F-H, S-Q

### Other applicable information (marine transport)

E2

### Air transport (ICAO)

**14.1. UN number:** UN1489  
**14.2. UN proper shipping name:** POTASSIUM PERCHLORATE  
**14.3. Transport hazard class(es):** 5.1  
**14.4. Packing group:** II  
Hazard label: 5.1  
Limited quantity Passenger: 2.5 kg  
IATA-packing instructions - Passenger: 558  
IATA-max. quantity - Passenger: 5 kg  
IATA-packing instructions - Cargo: 562  
IATA-max. quantity - Cargo: 25 kg

### Other applicable information (air transport)

E2

: Y544

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

## SECTION 15: Regulatory information

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

#### EU regulatory information

#### Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

#### National regulatory information

Water contaminating class (D): 3 - highly water contaminating

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#### SECTION 16: Other information

##### Relevant R-phrases (Number and full text)

- 09 Explosive when mixed with combustible material.
- 22 Harmful if swallowed.

##### Relevant H- and EUH-phrases (Number and full text)

- H271 May cause fire or explosion; strong oxidiser.
- H302 Harmful if swallowed.