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

### 1.1. Product identifier

Calcium nitrate, 100 g

CAS No: 13477-34-4

EC No: 233-332-1

### 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

R phrases:

Contact with combustible material may cause fire.

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

Hazard categories:

Oxidising solid: Ox. Sol. 3

Hazard Statements:

May intensify fire; oxidiser.

### 2.2. Label elements

Signal word: Warning

Pictograms: GHS03

**Hazard statements**

H272 May intensify fire; oxidiser.

**Precautionary statements**

P220 Keep/Store away from clothing/combustible materials.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Sum formula: $CaN_2O_6 \cdot 4H_2O$

Molecular weight: 236,15

**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] | |
| 233-332-1 | Calcium nitrate | 100 % |
| 13477-34-4 | O - Oxidizing R08 | |
| | Ox. Sol. 3; H272 | |

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.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

### 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.

### 5.3. Advice for firefighters

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

**Additional information**

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.

### 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.

**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

**Protective and hygiene measures**

Change contaminated clothing. Wash hands before breaks and after work. 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 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: | 6,5 | |
| **Changes in the physical state** | | |
| Melting point: | 44 °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: | 1,82 g/cm³ |
| Water solubility: (at 20 °C) | 1293 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

**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**

**Toxicocinetics, metabolism and distribution**

Toxicological data are not available.

**Acute toxicity**

Toxicological data are not available.

**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 fullfills 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

**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)**

| | |
|---|---|
| **14.1. UN number:** | UN1454 |
| **14.2. UN proper shipping name:** | CALCIUM NITRATE |
| **14.3. Transport hazard class(es):** | 5.1 |
| **14.4. Packing group:** | III |
| Hazard label: | 5.1 |
| Classification code: | O2 |
| Special Provisions: | 208 |
| Limited quantity: | 5 kg |
| Transport category: | 3 |
| Hazard No: | 50 |
| Tunnel restriction code: | E |

**Other applicable information (land transport)**

E1

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number:** | UN1454 |
| **14.2. UN proper shipping name:** | CALCIUM NITRATE |
| **14.3. Transport hazard class(es):** | 5.1 |
| **14.4. Packing group:** | III |
| Hazard label: | 5.1 |
| Classification code: | O2 |
| Special Provisions: | 208 |
| Limited quantity: | 5 kg |

**Other applicable information (inland waterways transport)**

E1

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number:** | UN1454 |
| **14.2. UN proper shipping name:** | CALCIUM NITRATE |
| **14.3. Transport hazard class(es):** | 5.1 |
| **14.4. Packing group:** | III |
| Hazard label: | 5.1 |
| Special Provisions: | 208 |

| | |
|---|---|
| Limited quantity: | 5 kg |
| EmS: | F-A, S-Q |

**Other applicable information (marine transport)**

E1

**Air transport (ICAO)**

| | |
|---|---|
| **14.1. UN number:** | UN1454 |
| **14.2. UN proper shipping name:** | CALCIUM NITRATE |
| **14.3. Transport hazard class(es):** | 5.1 |
| **14.4. Packing group:** | III |
| Hazard label: | 5.1 |
| Special Provisions: | A83 |
| Limited quantity Passenger: | 10 kg |

| | |
|---|---|
| IATA-packing instructions - Passenger: | 559 |
| IATA-max. quantity - Passenger: | 25 kg |
| IATA-packing instructions - Cargo: | 563 |
| IATA-max. quantity - Cargo: | 100 kg |

**Other applicable information (air transport)**

E1

: Y546

**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

## SECTION 16: Other information

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

08 Contact with combustible material may cause fire.

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

H272 May intensify fire; oxidiser.