

## SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006  
Version 3.0 Revision Date 25.06.2007  
Print Date 20.02.2008

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : **Calcium chloride**

Product Number : 21075  
Brand : Fluka

Company : Sigma-Aldrich Company Ltd.  
The Old Brickyard  
NEW ROAD, GILLINGHAM  
Dorset  
SP8 4XT  
UNITED KINGDOM

Telephone : +44 (0)1747 833000  
Fax : +44 (0)1747 833313  
Emergency Phone # : +44 (0)1747 833100  
E-mail address : eurtechserv@sial.com

### 2. HAZARDS IDENTIFICATION

**Risk advice to man and the environment**  
Irritating to eyes.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula :  $\text{CaCl}_2$   
Molecular Weight : 110.99 g/mol

CAS-No.	EC-No.	Index-No.	Classification	Concentration [%]
<b>Calcium chloride</b>				
10043-52-4	233-140-8	017-013-00-2	Xi, R36	-

### 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

### Further information

The product itself does not burn.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

### Environmental precautions

Do not let product enter drains.

### Methods for cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

### Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Moisture sensitive.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

#### Eye protection

Safety glasses

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form                      crystalline

Colour white

#### Safety data

pH	no data available
Melting point	772 °C
Boiling point	1,670 °C
Flash point	no data available
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	0.01 hPa at 20 °C
Density	2.150 g/cm <sup>3</sup>
Water solubility	no data available

### 10. STABILITY AND REACTIVITY

#### Storage stability

Stable under recommended storage conditions.

#### Conditions to avoid

Exposure to moisture may affect product quality.

#### Materials to avoid

Strong acids, Borane/boron oxides, Zinc, Calcium oxide, Methyl vinyl ether, Calcium chloride is attacked by bromine trifluoride

#### Hazardous decomposition products

##### Hazardous decomposition products formed under fire conditions.

Hydrogen chloride gas, Calcium oxide

### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

LD50 Oral - rat - 1,000 mg/kg

#### Irritation and corrosion

Skin - rabbit - No skin irritation

Eyes - rabbit - Severe eye irritation

#### Sensitisation

no data available

#### Chronic exposure

Laboratory experiments have shown mutagenic effects.

#### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Potential Health Effects

##### Inhalation

May be harmful if inhaled. May cause respiratory tract irritation.

##### Skin

May be harmful if absorbed through skin. May cause skin irritation.

##### Eyes

Causes eye irritation.

**Ingestion**

May be harmful if swallowed.

**12. ECOLOGICAL INFORMATION****Elimination information (persistence and degradability)**

no data available

**Ecotoxicity effects**

Toxicity to fish LC50 - Lepomis macrochirus - 10,650 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia magna (Water flea) - 52 mg/l - 48 h

**Further information on ecology**

no data available

**13. DISPOSAL CONSIDERATIONS****Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION****ADR/RID**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**15. REGULATORY INFORMATION****Labelling according to EC Directives**

EC Label

Hazard symbols

Xi Irritant

R-phrases

R36 Irritating to eyes.

S-phrases

S22 Do not breathe dust.

S24 Avoid contact with skin.

**16. OTHER INFORMATION****Further information**

Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.