



### SECTION 1: Identification of the substance/mixture

#### 1.1. Product identifier

Product form	: Substance
Substance name	: Calcium Chloride
Formula	: CaCl <sub>2</sub>
Molecular weight	: 110.98 g/mol
CAS No.	: 10043-52-4
Product code	: LW-CACL2
Synonyms	: Calcium(II) chloride, Calcium dichloride

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture	: Laboratory chemicals, Synthesis of substances
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#### 1.3. Emergency telephone number

Emergency number	: 1.800.424.9300 (USA) +1.703.527.3887 (INT)
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### SECTION 2: Hazards Identification

#### 2.1. Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)


Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2. GHS Label elements, including precautionary statements

Pictogram	: 
Signal word	: Warning
Hazard statement(s)	
H319	: Causes serious eye irritation.
Precautionary statement(s)	
P264	: Wash skin thoroughly after handling.
P280	: Wear protective gloves/ eye protection/ face protection.

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P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 : If eye irritation persists: Get medical advice/ attention.

### 2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

none

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

#### Hazardous components

Component	Classification	Concentration
Calcium chloride	Eye Irrit. 2A; H319	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: Description of first aid measures

### 4.1. Description of first aid measures

General advice : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

First-aid measures after inhalation : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

First-aid measures after skin contact : Wash off with soap and plenty of water. Consult a physician.

First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

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Hydrogen chloride gas, Calcium oxide

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

### 5.4. More Information

no data available

## SECTION 6: Accidental release measures

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

### 6.2. Environmental precautions

Do not let product enter drains.

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

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

### 6.4. Reference to other sections

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

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

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

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

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

Moisture sensitive.

### 7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Components with workplace control parameters : Contains no substances with occupational exposure limit values.

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### 8.2. Exposure controls

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

### 8.3. Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

#### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)  
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection : Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type

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OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls : Do not let product enter drains.

### SECTION 9: Physical and chemical properties

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

Appearance	: Form: flakes Color: white
Odor	: No data available
Odor Threshold	: No data available
pH	: no data available
Melting point/freezing point	: Melting point/range: 772 °C (1,422 °F) - lit.
Initial boiling point and boiling range	: 1,670 °C (3,038 °F)
Flash point	: no data available
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper/lower flammability or explosive limits	: no data available
Vapor pressure	: 0.01 hPa (0.01 mmHg) at 20 °C (68 °F)
Vapor density	: no data available
Relative density	: 2.150 g/cm <sup>3</sup>
Water solubility	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Decomposition temperature	: no data available
Viscosity	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available

#### 9.2. Other safety information

no data available

### SECTION 10: Stability and reactivity

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### 10.1. Reactivity

No data available

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

No data available

### 10.4. Conditions to avoid

Exposure to moisture may affect product quality.

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : LD50 Oral - rat - 2,301 mg/kg  
(OECD Test Guideline 401)  
Inhalation: no data available  
Dermal: no data available  
no data available

Skin corrosion/irritation : Skin - rabbit  
Result: No skin irritation

Serious eye damage/irritation : Eyes - rabbit  
Result: Moderate eye irritation  
(OECD Test Guideline 405)

Respiratory or skin sensitization : no data available

Germ cell mutagenicity : rat  
Unscheduled DNA synthesis

### Carcinogenicity

IARC: : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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ACGIH	:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	:	no data available
Specific target organ toxicity (single exposure)	:	no data available
Specific target organ toxicity (repeated exposure)	:	no data available
Aspiration hazard	:	no data available
Additional Information	:	RTECS: EV9800000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: Ecological information

### 12.1. Toxicity

Toxicity to fish	:	LC50 - Lepomis macrochirus - 10,650 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 - Daphnia magna (Water flea) - 2,400 mg/l - 48 h (OECD Test Guideline 202)

**12.2. Persistence and degradability** : No data available

**12.3. Bioaccumulative potential** : No data available

**12.3. Mobility in soil** : No data available

**12.4. Results of PBT and vPvB assessment** : PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6. Other adverse effects** : no data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product	:	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
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Contaminated Packaging : Dispose of as unused product.

### SECTION 14: Transport information

#### DOT (US)

Not dangerous goods

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

### SECTION 15: Regulatory information

#### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 311/312 Hazards

Acute Health Hazard

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right To Know Components

Calcium chloride	CAS-No.	Revision Date
	10043-52-4	

#### New Jersey Right To Know Components

Calcium chloride	CAS-No.	Revision Date
	10043-52-4	

#### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### SECTION 16: Other information

#### Full text of H-Statements referred to under sections 2 and 3.

Eye Irrit. : Eye irritation  
H319 Causes serious eye irritation.



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### HMIS Rating

Health Hazard : 2

Chronic Health Hazard :

Flammability : 0

Physical Hazard : 0

### NFPA Rating

Health hazard : 2

Fire Hazard : 0

Reactivity Hazard : 0

### Further Information

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