

# SAFETY DATA SHEET

according to 2012 OSHA Hazard Communication Standard (29CFR 1910.1200) as amended



## Calcium chloride dihydrate

Creation date 01st February 2024  
Revision date Version 1

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

#### Product identifier

Chemical name Calcium chloride dihydrate  
CAS number calcium chloride  
Index number 10035-04-8  
EC (EINECS) number 017-013-00-2  
Registration number 233-140-8  
01-2119494219-28-0006

#### Recommended use

Mineral supplement. Component of infusion and dialysis solutions. Ingredient for cosmetics. Industrial chemicals See Appendix I. to this SDS.

#### Substance uses advised against

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### Details of the supplier of the safety data sheet

#### Manufacturer

Name or trade name Macco Organiques, s.r.o.  
Address Zahradní 1938/46c, Bruntál 1, 792 01  
Czech Republic  
Identification number (CRN) 26819210  
VAT Reg No CZ26819210  
Phone +420 555 530 300  
E-mail macco@macco.cz

#### Emergency telephone number

CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 001-703-527-3887

### SECTION 2: Hazards identification

#### Classification of the substance or mixture

The substance is classified as dangerous by the 2012 OSHA Hazard Communication Standard (29CFR 1910.1200).

Eye Irrit. 2, H319

#### Most serious adverse effects on human health and the environment

Causes serious eye irritation. May cause gastrointestinal irritation. May cause skin irritation, respiratory tract irritation, eye irritation.

#### Label elements

##### Hazard pictogram



Signal word: Warning

##### Hazard statements

H319 Causes serious eye irritation.

##### Precautionary statements

P264 Wash hands and exposed parts of the body thoroughly after handling. Wear eye protection.  
P280 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P305+P351+P338 If eye irritation persists: Get medical advice/attention.  
P337+P313

#### Hazards not otherwise classified (HNOC)

Non identified

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### SECTION 3: Composition/information on ingredients

Identification numbers	Substance name	Content in % weight	Classification according to 29CFR 1910.1200	Note
Index: 017-013-00-2 CAS: 10035-04-8 EC: 233-140-8 Registration number: 01-2119494219-28-0006	<b>substance main component</b> calcium chloride dihydrate	99-100	Eye Irrit. 2, H319	

### SECTION 4: First aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. In the event of unconsciousness, do not provide food by mouth.

#### Inhalation

Terminate the exposure immediately; move the affected person to fresh air.

#### Skin contact

Remove contaminated clothes. And wash it before reuse. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

#### Eye contact

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue at least for 10 minutes. No neutralization should be performed in any case! Provide medical treatment, specialized if possible.

#### Ingestion

Rinse out the mouth with water and provide 2-5 dL of water. Provide medical treatment if the person has any health problems.

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

#### Inhalation

May cause respiratory irritation.

#### Skin contact

Possible irritation.

#### Eye contact

Causes serious eye irritation.

#### Ingestion

Stomach pain, nausea, diarrhoea. Irritation, nausea.

#### Notes to Physician

Symptomatic treatment.

### SECTION 5: Firefighting measures

#### Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

#### Unsuitable extinguishing media

Water - full jet.

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

Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

#### Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

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### SECTION 6: Accidental release measures

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

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes. Avoid dust formation. Provide sufficient ventilation. Do not inhale aerosols.

#### Environmental precautions

Prevent contamination of the soil and entering surface or ground water. In the event of substantial pollution, contact respective authorities and wastewater treatment plants.

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

Place the spilled product mechanically in the properly closed containers and dispose of it according to the section 13. After removal of the product, wash the contaminated site with plenty of water.

#### Reference to other sections

See the Section 7, 8 and 13.

### SECTION 7: Handling and storage

#### Precautions for safe handling

Prevent formation of dust in concentrations exceeding the occupational exposure limits. Prevent contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

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

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose.

#### Specific end use(s)

not available

### SECTION 8: Exposure controls/personal protection

#### Control parameters

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Calcium chloride dihydrate DNEL					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	6.6 mg/m <sup>3</sup>	Chronic effects local		CSR
Workers	Inhalation	13.2 mg/m <sup>3</sup>	Acute effects local		CSR
Consumers	Inhalation	3.3 mg/m <sup>3</sup>	Chronic effects local		CSR
Consumers	Inhalation	6.6 mg/m <sup>3</sup>	Acute effects local		CSR

Calcium chloride dihydrate PNEC			
Route of exposure	Value	Value determination	Source
Soil (agricultural)	0.150 mg/cm <sup>2</sup>		CSR

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### Other information of limit values PNEC

(for anhydrous salt):

- Deposition in soil and plants \*): NEdep 150g / m<sup>2</sup>. If the substance is used as a salt or to reduce road dust, see ES5.
- Sensitive terrestrial plants: 215mg Cl<sup>-</sup> / kg.
- Freshwater / seawater: As the concentration of calcium and chloride ions in aquatic ecosystems varies (0.06 - 210 mg / l), it is not considered useful to derive a general or intermittent PNEC value.
- Freshwater / marine sediment: Toxicity data for freshwater or marine sedimentary organisms are not available. Calcium chloride is present in the environment in the form of ions, which means that it will not adsorb as a substance on a solid surface. Therefore, it is not considered useful to derive a PNEC value for freshwater or marine sediment.
- Soil: Toxicity data for soil organisms are not available. Therefore, it is not considered useful to derive a PNEC value for soil.
- Sewage treatment plants (STP): Toxicity data for desirable organisms in sewage treatment plants are not available. As the concentration of calcium and chloride ions in aquatic ecosystems varies, it is not considered useful to derive a general or added PNEC value.

• Ingestion: Due to the nutritional aspects, metabolism and mechanisms of action of calcium and chloride ions, it is not considered useful to derive an oral PNEC value (secondary poisoning).

\*) A preliminary PNEC value, the so-called "no-effect deposition" (NEdep), was derived for exposure by calcium chloride deposition via a dusting salt or a dust-reducing salt. It should be noted that although the units refer to exposure to air, this value reflects the effects of calcium chloride from the air on the soil or on the surface of the plants.

### Appropriate engineering controls

Good ventilation, showers, eyewash station

### Personal protective equipment

Do not eat, drink and smoke during work. Follow the usual measures intended for health protection at work and especially for good ventilation. Provide showers and eye wash possibility. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

#### Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

#### Skin protection

Other protection: protective workwear. Hand protection: Protective gloves resistant to the product. EN ISO 374-1. Contaminated skin should be washed thoroughly.

#### Respiratory protection

Half-mask with anti-dust filter when the exposition limits of substances are exceeded or in the location with insufficient ventilation. Respirator.

#### Thermal hazard

Not available.

#### Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.

## SECTION 9: Physical and chemical properties

### Appearance

Physical state

solid crystalline, powder

Colour

colourless, white

Odour

without fragrance

pH

5-8 (5% solution at 20 °C)

Melting point/freezing point

176 °C

Boiling point or initial boiling point and boiling range

cannot be determined - decomposition occurs

Flash point

not applicable

Evaporation rate

not applicable

Flammability

non-flammable

Upper and lower explosion limit

not applicable

Vapour pressure

not applicable

Vapour density

not applicable

Relative density

1.835

Solubility in water

130g / 100g 20°C

Partition coefficient n-octanol/water (log value)

not applicable

Kinematic viscosity

not applicable

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Auto-ignition temperature

not applicable

Decomposition temperature

260 °C

Oxidising properties

It is not oxidising.

### SECTION 10: Stability and reactivity

#### Reactivity

The substance is non-flammable. Hygroscopic substance.

#### Chemical stability

The product is stable under normal conditions.

#### Possibility of hazardous reactions

Reacts exothermically with water.

#### Conditions to avoid

The product is stable and no degradation occurs under normal use. Heat. Humid air.

#### Incompatible materials

Strong oxidizing agents releasing chlorine. Strong reducing / oxidizing agents. Boron Trifluoride. Ethyl vinyl ether. Can cause corrosion in some types of stainless steel. Due to high temperature and other factors, crevice corrosion can be accelerated.

#### Hazardous decomposition products

Not developed under normal uses. At high temperatures, irritating or toxic gases may be formed.

### SECTION 11: Toxicological information

#### Acute toxicity

Based on available data the classification criteria are not met.

#### Calcium chloride dihydrate

Route of exposure	Parameter	Value	Exposure time	Species	Sex	Value determination	Source
Oral	LD <sub>50</sub>	3050 mg/kg bw		Rat		Literary studies	CSR
Oral	LD <sub>50</sub>	2700 mg/kg bw		Mouse		Literary studies	CSR
Dermal	LD <sub>50</sub>	>6600 mg/kg bw		Rabbit		Literary studies	CSR

#### Skin corrosion/irritation

No data available for the substance. Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

No data available for the substance. Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

No data available for the substance. Based on available data the classification criteria are not met.

#### Carcinogenicity

No data available for the substance. Based on available data the classification criteria are not met. IARC - not listed; NTP - not listed; ACGIH - not listed; OSHA - not listed; Mexico - not listed

#### Reproductive toxicity

No data available for the substance. Based on available data the classification criteria are not met.

#### Toxicity for specific target organ - single exposure

No data available for the substance. Based on available data the classification criteria are not met.

#### Toxicity for specific target organ - repeated exposure

No data available for the substance. Based on available data the classification criteria are not met.

#### Aspiration hazard

No data available for the substance. Based on available data the classification criteria are not met.

#### Endocrine disruptor information

The substance does not have endocrine disrupting properties.

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### SECTION 12: Ecological information

#### Ecotoxicity

Based on available data the classification criteria are not met.

#### Acute toxicity

##### Calcium chloride dihydrate

Parameter	Value	Exposure time	Species	Environment	Value determination	Source
LC <sub>50</sub>	6100 mg/l	96 hours	Fish (Pimephales promelas)	Fresh water	Literary studies	CSR
LC <sub>50</sub>	14100 mg/l	96 hours	Fish (Lepomis macrochirus)	Fresh water	Literary studies	CSR
LC <sub>50</sub>	3180 mg/l	48 hours	Daphnia (Daphnia magna)	Fresh water	Literary studies	CSR
EC <sub>50</sub>	5300 mg/l		Algae (Selenastrum capricornutum)	Fresh water	Literary studies	CSR

#### Persistence and degradability

No data available for the substance.

#### Bioaccumulative potential

No data available for the substance.

#### Mobility in soil

No data available for the substance.

#### Other adverse effects

Not available.

### SECTION 13: Disposal considerations

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

### SECTION 14: Transport information

#### UN number or ID number

not subject to transport regulations

#### UN proper shipping name

not relevant

#### Transport hazard class(es)

not relevant

#### Packing group

not relevant

#### Environmental hazards

not relevant

#### Special precautions for user

Reference in the Sections 4 to 8.

#### Maritime transport in bulk according to IMO instruments

not relevant

### SECTION 15: Regulatory information

#### United States of America Inventory

TSCA (Toxic Substances Control Act)

This product is listed. No other TSCA rules affect this product.

#### U.S. Federal Regulations

SARA 311/312 Hazard categories

See section 2 for more information

SARA 313 Reportable Ingredients, 40CFR372

Not regulated

CWA (Clean Water Act)

Not regulated

CERCLA (Comprehensive Environmental Response Compensation and Liability Act):

There is no listed reportable quantity for this product.

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### U.S. State Regulations

California Proposition 65:

U.S. State Right-to-Know Regulations:

This product does not contain any Proposition 65 chemicals.  
not regulated

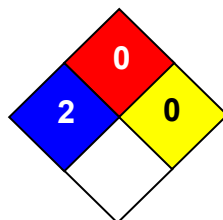
### Chemical safety assessment:

Chemical safety Report (CSR) has been carried out for the substance.

## SECTION 16: Other information

### NFPA (National Fire Protection Association)

Health	2
Flammability	0
Reactivity	0
Special Hazard	None



4: Extreme, 3: High, 2: Moderate, 1: Slight, 0: Insignificant; OX: Oxidiser, W: Water Reactives, SA: Simple Asphyxiants

### Competent person responsible for the safety data sheet

Name

Petr Ševčík

E-mail

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Creation Date

01-Feb-2024

Revision Date

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Revision Summary

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### Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.

**End of SDS**





