

# Calcium chloride dihydrate

## Safety Data Sheet

**248045**

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Date of issue: 10/07/2014      Revision date 24/01/2020  
Supersedes 07/03/2017

Version: 3.0

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

#### 1.1. Product identifier

Product form : Substance  
Substance name : Calcium chloride dihydrate  
EC-No. : 233-140-8  
CAS-No. : 10035-04-8  
REACH registration No : 01-2119494219-28  
Product code : 248045  
Synonyms : Calcium chloride dihydrate  
Product group : Raw material

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only  
Use of the substance/mixture : Active ingredient for the preparation of pharmaceuticals

##### 1.2.2. Uses advised against

No additional information available

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

##### Supplier

Duchefa Farma BV  
A. Hofmanweg 71  
2031BH Haarlem - The Netherlands  
T +31(0)23-5319093  
[farma@duchefa.nl](mailto:farma@duchefa.nl) - [www.duchefa-farma.com](http://www.duchefa-farma.com)

#### 1.4. Emergency telephone number

Emergency number : Supplier contact information:  
+31(0)23-5319093 (M-F 09:00-17:00)  
+31(0)6-30109355 (outside office hours)

Organisation/Company	Address	Comment
Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	

### SECTION 2: Hazards identification

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

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

Serious eye damage/eye irritation, Category 2

H319

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Full text of H statements : see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Extra labelling to display  
classification(s) to display

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H319 - Causes serious eye irritation.

Precautionary statements (CLP) :

P280 - Wear protective gloves, eye protection.  
P305+P351 - IF IN EYES: Rinse cautiously with water for several minutes.  
P337+P313 - If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium chloride dihydrate	(CAS-No.) 10035-04-8 (EC-No.) 233-140-8 (REACH-no) 01-2119494219-28	99 - 103	Eye Irrit. 2, H319

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general :

Never give anything by mouth to an unconscious person  
If you feel unwell, seek medical advice (show the label where possible).

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First-aid measures after inhalation	: Allow affected person to breathe fresh air Allow the victim to rest Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Ensure adequate flushing of eyes by separating eyelids with the fingers Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth Call a POISON CENTER/doctor if you feel unwell.

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

Symptoms/effects after inhalation	: Irritant.
Symptoms/effects after skin contact	: Irritant. Redness.
Symptoms/effects after eye contact	: Causes serious eye irritation. Blurred vision. Redness, pain.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: All extinguishing agents can be used Making extinguishing agents environment-friendly.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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

Fire hazard	: Not combustible.
Hazardous decomposition products in case of fire	: Toxic and irritating gases are released.

### 5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures	: Avoid contact with skin and eyes. Do not breathe dust. Avoid raising dust.
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### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

### 6.4. Reference to other sections

Reference to other sections (8, 13).

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Avoid contact with skin and eyes.

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures.

Hygiene measures : Do not eat, drink or smoke when using this product.

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

Storage conditions : Keep container closed when not in use  
Keep only in the original container in a cool, well-ventilated place  
Store at room temperature  
Store in dry protected location to prevent any moisture contact.

Incompatible materials : Moisture. Heat sources.

Storage temperature : 15 - 25 °C

### 7.3. Specific end use(s)

Pharmaceutical industry.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice.

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

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Type	Material	Permeation	Thickness (mm)	Standard
Gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,11	EN ISO 374

### Eye protection:

Safety glasses (to European standard EN 166 or equivalent)

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Dustmask with filtertype P1

### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Appearance	: Crystalline solid.
Colour	: Colourless almost white.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: 5 - 8
pH solution	: 5 % (20 °C)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 176 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: 260 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.835 g/cm <sup>3</sup>
Solubility	: Water: 130 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No data available
Explosive limits	: No data available

## 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Strong oxidizing agents generates chlorine.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong reducing agents

Strong oxidizers.

### 10.6. Hazardous decomposition products

At very high temperature: decomposes by releasing irritant gases/vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Calcium chloride dihydrate (10035-04-8)	
LD50 oral rat	3000 mg/kg
LD50 oral	2700 mg/kg mouse, rabbit 1000 mg/kg
LD50 dermal rabbit	> 6500 mg/kg

Skin corrosion/irritation : Not classified  
pH: 5 - 8

Additional information : Based on available data, the classification criteria are not met

Serious eye damage/irritation : Causes serious eye irritation.  
pH: 5 - 8

Respiratory or skin sensitisation : Not classified

Additional information : Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified  
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-repeated exposure : Not classified

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Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : There are no available data for a classification.

Calcium chloride dihydrate (10035-04-8)	
LC50 fish 1	6000 mg/l
EC50 Daphnia 1	3100 mg/l 48 h.

### 12.2. Persistence and degradability

Calcium chloride dihydrate (10035-04-8)	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

Calcium chloride dihydrate (10035-04-8)	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of this material and its container at hazardous or special waste collection point. Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IATA
<b>14.1. UN number</b>	
Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>	
Not applicable	Not applicable

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ADR	IATA
<b>14.3. Transport hazard class(es)</b>	
Not applicable	Not applicable
Not applicable	Not applicable
<b>14.4. Packing group</b>	
Not applicable	Not applicable
<b>14.5. Environmental hazards</b>	
Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available	

### 14.6. Special precautions for user

#### . Overland transport

No data available

#### - Air transport

No data available

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Calcium chloride dihydrate is not on the REACH Candidate List

Calcium chloride dihydrate is not on the REACH Annex XIV List

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes:

1.2	Use of the substance/mixture	Added	
2.2	Precautionary statements (CLP)	Modified	
7.2	Storage conditions	Modified	
8.2	Respiratory protection	Modified	

Abbreviations and acronyms:

SDS	Safety Data Sheet
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association

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ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : REACH Disclaimer:  
This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number). **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness.

Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation.

SDS EU (REACH Annex II) duchefa nieuwe logo

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*