

**Calcium chloride.2aq**

Revision: 03.11.2025

Product code: AC14.00897

Page 1 of 10

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Calcium chloride.2aq

REACH Registration Number: 01-2119494219-28-XXXX  
CAS No: 10035-04-8  
Index No: 017-013-00-2  
EC No: 233-140-8

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

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

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: N-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Belgium NV  
Street: Industriezone "De Arend" 2  
Place: B-8210 Zedelgem  
Telephone: +32 50 28 83 20  
E-mail: info.be@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Responsible Department: AnalytiChem:  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333  
+44 20 3807 3798 (CHEMTREC)

**1.4. Emergency telephone number:**

## Calcium chloride.2aq

Revision: 03.11.2025

Product code: AC14.00897

Page 2 of 10

## Further Information

No data available

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

## Regulation (EC) No 1272/2008

Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

## 2.2. Label elements

## Regulation (EC) No 1272/2008

Signal word: Warning

Pictograms:



## Hazard statements

H319 Causes serious eye irritation.

## Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
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. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

## 3.1. Substances

Sum formula:  $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ 

Molecular weight: 147,01 g/mol

## Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
10035-04-8	Calcium chloride dihydrate			100 %
	233-140-8	017-013-00-2	01-2119494219-28-XXXX	
	Eye Irrit. 2; H319			

Full text of H and EUH statements: see section 16.

## Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
10035-04-8	233-140-8	Calcium chloride dihydrate	100 %
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = 2120 mg/kg	

## Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006

**Calcium chloride.2aq**

Revision: 03.11.2025

Product code: AC14.00897

Page 3 of 10

(REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

No data available

**After inhalation**

Provide fresh air.

Call a doctor if you feel unwell.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Gastrointestinal complaints

Irritant

**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.

**Unsuitable extinguishing media**

no restriction

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

Non-combustible solids

Hazardous combustion products

In case of fire may be liberated:

Hydrogen chloride (HCl)

**5.3. Advice for firefighters**

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

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

**Calcium chloride.2aq**

Revision: 03.11.2025

Product code: AC14.00897

Page 4 of 10

**For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Consult an expert  
Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

No special environmental measures are necessary.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Collect in closed and suitable containers for disposal.  
Take up carefully when dry. Take up dust-free and set down dust-free.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**6.4. Reference to other sections**

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Read label before use.  
Handle and open container with care.  
Provide adequate ventilation.  
Avoid contact with skin, eyes and clothes.  
Avoid dust formation. Do not breathe dust.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Take off contaminated clothing.  
Wash hands before breaks and after work.  
When using do not eat or drink.

**Further information on handling**

Take off contaminated clothing and wash it before reuse.  
Wash hands before breaks and after work.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed and dry.

**Calcium chloride.2aq**

Revision: 03.11.2025

Product code: AC14.00897

Page 5 of 10

**Hints on joint storage**

Take national regulations into account.

**Further information on storage conditions**

storage temperature +5°C - +30°C.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****DNEL/DMEL values**

CAS No	Substance			
DNEL type	Exposure route		Effect	Value
10035-04-8	Calcium chloride dihydrate			
Worker DNEL, long-term	inhalation		local	5 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation		local	10 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation		local	2,5 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation		local	5 mg/m <sup>3</sup>

**8.2. Exposure controls****Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear eye protection/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) with the following specification (test according to EN 374):

**By long-term hand contact**

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: &gt; 480 min

**By short-term hand contact**

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): &gt; 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under

**Calcium chloride.2aq**

Revision: 03.11.2025

Product code: AC14.00897

Page 6 of 10

conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Filtering device with filter or ventilator filtering device of type: P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	white
Odour:	odourless
Odour threshold:	not determined
Melting point/freezing point:	~176 °C
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	X
Auto-ignition temperature:	not determined
Decomposition temperature:	not applicable
pH-Value (at 20 °C):	4,5-8,5 (50 g/l)
Viscosity / kinematic:	not determined
Water solubility: (at 40 °C)	1280 g/l
Solubility in other solvents	not determined
Dissolution rate:	not determined
Partition coefficient n-octanol/water:	not determined
Dispersion stability:	not determined
Vapour pressure:	not determined
Density:	1,85 g/cm <sup>3</sup>
Bulk density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not determined

**9.2. Other information****Information with regard to physical hazard classes**

Explosive properties

not determined

Sustained combustibility:

No data available

**Calcium chloride.2aq**

Revision: 03.11.2025

Product code: AC14.00897

Page 7 of 10

Self-ignition temperature

Solid:

not determined

Gas:

not applicable

Oxidizing properties

Not oxidising.

**Other safety characteristics**

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

not determined

Solid content:

100%

Sublimation point:

not determined

Softening point:

not determined

Pour point:

not determined

not determined:

Viscosity / dynamic:

not determined

Flow time:

not determined

**Further Information**

not determined

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Exothermic reaction with: Water

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Bortrifluorid, Vinylmethylether

metals

Zinc

**10.4. Conditions to avoid**

Protect against: Humidity

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes****Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

Based on available data, the classification criteria are not met.

## Calcium chloride.2aq

Revision: 03.11.2025

Product code: AC14.00897

Page 8 of 10

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
10035-04-8	Calcium chloride dihydrate				
	oral	LD50 2120 mg/kg	Rat	Study report (1987)	OECD Guideline 401
	dermal	LD50 > 5000 mg/kg	Rabbit	Other company data (1981)	Method: other

**Irritation and corrosivity**

Serious eye damage/eye irritation: Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

No data available

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards****Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

**Further information**

Gastrointestinal complaints

Irritant

**SECTION 12: Ecological information****12.1. Toxicity**

Based on available data, the classification criteria are not met.



## Calcium chloride.2aq

Revision: 03.11.2025

Product code: AC14.00897

Page 9 of 10

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
10035-04-8	Calcium chloride dihydrate						
	Acute fish toxicity	LC50 mg/l	4630	96 h	Pimephales promelas	Env. Toxicol. Chem., 16(10), 2009-2019.	Method: other: EPA/600/4-90/027 , EPA/600
	Acute algae toxicity	ErC50 mg/l	2900	72 h	Pseudokirchneriella subcapitata	Study report (1998)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	2400	48 h	Daphnia magna	Study report (1998)	OECD Guideline 202

**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**

This substance does not meet the PBT/vPvB criteria of UK REACH.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

No data available

**Further information**

No data available

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Do not empty into drains.

**Contaminated packaging**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**Calcium chloride.2aq**

Revision: 03.11.2025

Product code: AC14.00897

Page 10 of 10

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

**14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

**14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

**14.4. Packing group:**

No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1.

**Abbreviations and acronyms**

Eye Irrit. 2: Eye irritation, hazard category 2

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Relevant H and EUH statements (number and full text)**

H319 Causes serious eye irritation.