

*SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006*

## **CALCIUM CHLORIDE**

Version 2.0  
Revision Date 2010/11/18

Print Date 2010/11/18  
MSDS code: MCAC100

### **1. Identification of the substance/mixture and of the company/undertaking**

#### **1.1. Product identifier**

Trade name : CALCIUM CHLORIDE  
Substance name : calcium chloride  
Index-No. : 017-013-00-2  
CAS-No. : 10043-52-4  
EC-No. : 233-140-8

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

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Recommended restrictions on use : At that time we do not yet have information on use restrictions. They will be included in this safety data sheet when available.

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

Company : Brenntag UK & Ireland Albion House, Rawdon Park  
GB LS19 7XX Leeds Yeadon  
Telephone : 0113 3879 200  
Telefax : 0113 3879 280  
E-mail address : msds@brenntag.co.uk

#### **1.4. Emergency telephone number**

Emergency telephone number : Emergency only telephone number (open 24 hours):  
01865 407333 (N.C.E.C. Culham)

### **2. Hazards identification**

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

**Classification according to Regulation (EC) No 1272/2008**

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements

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Hazard class	Hazard category	Target Organs	Hazard statements
Serious eye damage/eye irritation	Category 2		H319

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


### Classification according to EU Directives 67/548/EEC or 1999/45/EC

EU. Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Irritant (Xi)	R36

For the full text of the R-phrases mentioned in this Section, see Section 16.

## 2.2. Label elements

### Labelling according to Regulation (EC) No 1272/2008

Hazard symbols	:	
Signal word	:	Warning
Hazard statements	:	H319 Causes serious eye irritation.
Precautionary statements	:	
Prevention	:	P264 Wash hands thoroughly after handling. P280 Wear eye protection/ face protection.
Response	:	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.

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### **Hazardous components which must be listed on the label:**

- calcium chloride

### **2.3. Other hazards**

## **3. Composition/information on ingredients**

### **3.1. Substances**

Chemical Name	Identification Number:	Amount [%]
calcium chloride	Index-No. : 017-013-00-2	
	CAS-No. : 10043-52-4	>= 77 - <= 100
	EC-No. : 233-140-8	

## **4. First aid measures**

### **4.1 Description of first aid measures**

- General advice : After contact with skin, wash immediately with plenty of soap and water. Remove to fresh air. Take off contaminated clothing and shoes immediately. Consult a physician.
- If inhaled : Remove to fresh air. Drink water to clean the throat and clean the nose in order to eliminate dust. Consult a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Consult a physician.
- In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Consult a physician.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting.

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

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**4.3 Indication of immediate medical attention and special treatment needed****5. Fire-fighting measures****5.1. Extinguishing media**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

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

Specific hazards during fire fighting : In case of fire hazardous decomposition products may be produced such as:  
Hydrogen chloride gas  
Gives off hydrogen by reaction with metals.

**5.3. Advice for firefighters**

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)

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

Personal precautions : Avoid dust formation. Avoid contact with skin and eyes. For personal protection see section 8.

**6.2 Environmental precautions**

Environmental precautions : Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

**6.3 Methods and materials for containment and cleaning up**

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Methods and materials for containment and cleaning up : Use mechanical handling equipment. Avoid dust formation. Sweep up and shovel into suitable containers for disposal. Flush with water. Dispose of in accordance with local regulations.

Further information : Treat recovered material as described in the section "Disposal considerations".

**6.4 Reference to other sections****7. Handling and storage****7.1 Precautions for safe handling**

Advice on safe handling : Keep container tightly closed. Avoid contact with skin, eyes and clothing. Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin and the eyes.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : Avoid moisture. Avoid dust formation. Suitable materials for containers: polyethylene Polypropylene

Advice on protection against fire and explosion : The product is not flammable. Normal measures for preventive fire protection.

Further information on storage conditions : Keep tightly closed in a dry and cool place. Product is hygroscopic.

**7.3 Specific end uses**

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(Additional) : Contains no substances with occupational exposure limit values.  
Information

**8.2. Exposure controls****Engineering measures**

Refer to protective measures listed in sections 7 and 8.

**Personal protective equipment***Respiratory protection*

Advice : Respirator must be worn if exposed to dust.  
Recommended Filter type:P

*Hand protection*

Advice : Wear suitable gloves.  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.  
Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).  
Protective gloves should be replaced at first signs of wear.

Material : natural rubber

Gloves : 8 h

Glove thickness : 0.5 mm

Material : butyl-rubber

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Gloves :  $\geq$  8 h

Glove thickness : 0.5 mm

Material : polychloroprene

Gloves :  $\geq$  8 h

Glove thickness : 0.5 mm

*Eye protection*

Advice : Tightly fitting safety goggles

*Skin and body protection*

Advice : Wear suitable protective clothing.  
Remove and wash contaminated clothing before re-use.  
Do not wear leather gloves.

**Environmental exposure controls**

General advice : Should not be released into the environment.  
Do not flush into surface water or sanitary sewer system.

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

Form : powder  
or  
flakes

Colour : cream  
white

Odour : odourless

Odour Threshold :  
pH : 9 - 10.5  
100 g/l  
20 °C

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Freezing point	:	772 °C
Boiling point	:	1,600 °C
Flash point	:	not applicable
Density	:	2.15 g/cm <sup>3</sup> 20 °C
Water solubility	:	754 g/l 20 °C
Ignition temperature	:	not applicable
Oxidizing properties	:	

**9.2 Other information**

Molecular Weight	:	129 - 147 g/mol
Bulk density	:	ca. 800 - 900 kg/m <sup>3</sup>

**10. Stability and reactivity****10.1. Reactivity****10.2. Chemical stability****10.3. Possibility of hazardous reactions****10.4. Conditions to avoid**

Conditions to avoid : Stable under normal conditions.

**10.5. Incompatible materials**Materials to avoid : Alkaline earth metals  
Alkali metals**10.6. Hazardous decomposition products**

Hazardous decomposition : Gives off hydrogen by reaction with metals.





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Result : No skin irritation  
Method : OECD Test Guideline 404

### **Eyes**

Species : rabbit  
Result : Irritating to eyes.  
Method : OECD Test Guideline 405

### **Sensitisation**

Remarks : Did not cause sensitization on laboratory animals.

## **12. Ecological information**

### **12.1. Toxicity**

**calcium chloride**

**CAS-No.  
10043-52-4**

### **Acute toxicity**

#### **Fish**

Species : *Lepomis macrochirus*  
Exposure Time : 96 h  
Value type : LC50  
Value : 10,650 mg/l

Species : *Gambusia affinis*  
Exposure Time : 96 h  
Value type : LC50  
Value : 13,400 mg/l

### **Toxicity to daphnia and other aquatic invertebrates.**

Species : *Daphnia magna*  
Exposure time : 48 h  
Value type : LC50

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Value : 3,005 mg/l

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**algae**


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Species : Desmodemus subspicatus (green algae)  
Exposure time : 96 h  
Value : 3,130 mg/l

**12.2. Persistence and degradability**

Persistence and degradability	
calcium chloride	CAS-No. 10043-52-4
Persistence and degradability	
Biodegradability	
Remarks : The methods for determining the biological degradability are not applicable to inorganic substances.	

**12.3. Bioaccumulative potential**

Bioaccumulation	
Remarks : Bioaccumulation is not expected.	

**12.4. Mobility in soil****12.5. Results of PBT and vPvB assessment****12.6. Other adverse effects**

Additional ecological information	
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Remarks : Ecological injuries are not known or expected under normal use.  
Do not flush into surface water or sanitary sewer system.

**13. Disposal considerations****13.1. Waste treatment methods**

- Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains.
- Contaminated packaging : Clean container with water. Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of in accordance with local regulations.
- European Waste Catalogue Number : Waste codes should be assigned by the user based on the application for which the product was used.

**14. Transport information****14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

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

Not applicable.

**14.4. Packaging group**

Not applicable.

**14.5. Environmental hazards**

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Not applicable.

### **14.6. Special precautions for user**

### **14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

IMDG : not applicable

## **15. Regulatory information**

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

UK ISR : calcium chloride: Annual reporting level threshold: 10,000 kg

#### **calcium chloride:**

Regulatory List	Notification	Notification number
AICS	YES	
DSL	YES	
INV (CN)	YES	
ENCS (JP)	YES	(1)-176
ISHL (JP)	YES	(1)-176
TSCA	YES	
EINECS	YES	233-140-8
KECI (KR)	YES	KE-04496
PICCS (PH)	YES	

### **15.2. Chemical Safety Assessment**

## **16. Other information**

**Full text of R-phrases referred to under sections 2 and 3.**

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R36 Irritating to eyes.

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

H319 Causes serious eye irritation.

**Further information**

Other information : The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

|| Indicates updated section.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.