

*SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006***Calcium Chloride (ALL GRADES)**

Version 3.1

Print Date 2013/09/30

Revision date / valid from 2013/09/30

MSDS code: MCAC100**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : Calcium Chloride (ALL GRADES)
Substance name : calcium chloride
Index-No. : 017-013-00-2
CAS-No. : 10043-52-4
EC-No. : 233-140-8
Registration number : 01-2119494219-28-xxxx

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.
Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet

Company : **Kilrock Products Ltd**
Unit 1B, Alma Road Industrial Estate
Chesham, Bucks, HP5 3HB
Telephone : **+44 (0) 1494 793 900**
Telefax : **+44 (0) 1494 793 400**
E-mail address : **info@kilrock.co.uk**

1.4. Emergency telephone number

Emergency telephone number : **Mr. R. Davis**
+44 (0) 7836526420

Section 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
Serious eye damage/eye irritation	Category 2	---	H319

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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

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.

Most important adverse effects

Human Health	:	See section 11 for toxicological information.
Physical and chemical hazards	:	See section 9 for physicochemical information.
Potential environmental effects	:	See section 12 for environmental information.

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.

Hazardous components which must be listed on the label:

- calcium chloride

2.3. Other hazards

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For Results of PBT and vPvB assessment see section 12.5.

Section 3: Composition/information on ingredients

3.1. Substances

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)		Classification (67/548/EEC)
		Hazard class / Hazard category	Hazard statements	
calcium chloride				
Index-No.	: 017-013-00-2	Eye Irrit.2	H319	Irritant; Xi; R36
CAS-No.	: 10043-52-4			
EC-No.	: 233-140-8	>= 77 - <= 100		
Registration	: 01-2119494219-28-xxxx			

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

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

Section 4: First aid measures

4.1. Description of first aid measures

General advice	: Take off contaminated clothing and shoes immediately.
If inhaled	: Remove to fresh air. If symptoms call a physician.
In case of skin contact	: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
In case of eye contact	: Consult an eye specialist immediately. Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

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

Symptoms	: See Section 11 for more detailed information on health effects and symptoms.
Effects	: See Section 11 for more detailed information on health effects and symptoms.

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

Treatment	: Treat symptomatically.
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Section 5: Firefighting measures

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5.1. Extinguishing media

- Suitable extinguishing media : The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

- Specific hazards during firefighting : In case of fire hazardous decomposition products may be produced such as: Hydrogen chloride gas

5.3. Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment. Avoid dust formation. Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe dust.

6.2. Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

- Methods and materials for containment and cleaning up : Use mechanical handling equipment. Keep in suitable, closed containers for disposal.
- Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections

- See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

Section 7: Handling and storage

7.1. Precautions for safe handling

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- Advice on safe handling : Keep container tightly closed. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.
- Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Store in original container.
- 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.
- Advice on common storage : Keep away from food, drink and animal feedingstuffs. Materials to avoid: Strong oxidizing agents

7.3. Specific end use(s)

- Specific use(s) : No information available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Other Occupational Exposure Limit Values

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

Component:	calcium chloride	CAS-No.
		10043-52-4

Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)

- DNEL
Industrial use, Acute effects, Inhalation : 10 mg/m3
- DNEL
Industrial use, Inhalation : 5 mg/m3
Long-term exposition
- DNEL
Professional use, Inhalation : 5 mg/m3
Long-term exposition

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DNEL

Professional use, Acute effects, Inhalation : 10 mg/m³

DNEL

Consumer use, Acute effects, Inhalation : 5 mg/m³

DNEL

Consumer use, Inhalation : 2.5 mg/m³
Long-term exposition

Predicted No Effect Concentration (PNEC)

Soil and plants : 150 g/m²

A tentative "PNEC", a so-called "no-effect-deposition"(NEdep) was derived for the exposure route for deposition of calcium via road salts or dust suppressors. It should be noted, that although the units refer to exposure via air, this value reflects effects caused by CaCl₂ deposited from air into soil or onto a plants' surface.

Sensitive terrestrial plants : 215 mg/kg

8.2. Exposure controls

Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection

Advice : Required if dust is released
Recommended Filter type:
Particle filter:P2
Particle filter:P3

Hand protection

Advice : Wear suitable gloves.
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
Break through time : >= 8 h
Glove thickness : 0.5 mm

Material : butyl-rubber
Break through time : >= 8 h
Glove thickness : 0.5 mm

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Material : polychloroprene
Break through time : ≥ 8 h
Glove thickness : 0.5 mm

Material : Nitrile rubber
Break through time : ≥ 8 h
Glove thickness : 0.35 mm

Material : Fluorinated rubber
Break through time : ≥ 8 h
Glove thickness : 0.4 mm

Material : Polyvinylchloride
Break through time : ≥ 8 h
Glove thickness : 0.5 mm

Eye protection

Advice : Safety glasses

Skin and body protection

Advice : Wear suitable protective clothing.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form : solid

Colour : white

Odour : odourless

Odour Threshold : no data available

pH : 9 - 10.5 (100 g/l; 20 °C)

Melting point/range : 782 °C

Boiling point/boiling range : 1,600 °C

Flash point : not applicable

Evaporation rate : no data available

Calcium Chloride (ALL GRADES)

Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Density	: 2.15 g/cm ³ (20 °C)
Water solubility	: 745 g/l (20 °C)
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: not applicable
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Explosivity	: Product is not explosive.
Oxidizing properties	: no data available

9.2. Other information

Molecular weight	: 110.98 g/mol
Bulk density	: ca. 1000 kg/m ³

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

Advice	: No decomposition if used as directed.
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10.2. Chemical stability

Advice	: No decomposition if stored and applied as directed.
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10.3. Possibility of hazardous reactions

Hazardous reactions	: No information available.
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10.4. Conditions to avoid

Conditions to avoid	: Water
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10.5. Incompatible materials

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Materials to avoid : Alkaline earth metals, Alkali metals

10.6. Hazardous decomposition products

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as: Hydrogen chloride gas

Section 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity****Oral**

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Inhalation

Product dust may be irritating to respiratory system.
High concentration may cause difficulty in breathing.

Dermal

Please find this information in the listing of the component/components below in the MSDS.

Irritation**Skin**

Result : No skin irritation

Eyes

Result : Risk of serious damage to eyes.

Sensitisation

Result : No sensitizing effect known.

CMR effects**CMR Properties**

Carcinogenicity : Please find this information in the listing of the component/components below in the MSDS.

Mutagenicity : Please find this information in the listing of the component/components below in the MSDS.

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Teratogenicity : Please find this information in the listing of the component/components below in the MSDS.

Reproductive toxicity : Please find this information in the listing of the component/components below in the MSDS.

Specific Target Organ Toxicity**Single exposure**

remark : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Repeated exposure

remark : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Other toxic properties**Aspiration hazard**

No aspiration toxicity classification

Component: calcium chloride

CAS-No.
10043-52-4

Acute toxicity**Oral**

LD50 Oral : 2301 mg/kg (rat) (OECD Test Guideline 401)

Dermal

LD50 Dermal : > 5000 mg/kg)

Irritation**Skin**

Result : No skin irritation (rabbit) (OECD Test Guideline 404)

Eyes

Result : Irritating to eyes. (rabbit) (OECD Test Guideline 405)

Sensitisation

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Result : The product is not expected to cause hypersensitivity.

CMR effects**CMR Properties**

Mutagenicity : Did not show mutagenic effects in animal experiments.

Teratogenicity : Did not show teratogenic effects in animal experiments.

Reproductive toxicity : No toxicity to reproduction

Carcinogenicity

It dissociates into ions that are present physiologically in relatively high levels in vertebrates. Therefore, a study is considered (scientifically) unnecessary.

Reproductive toxicity

NOAEL 169 mg/kg
Parent
(rabbit)
(OECD Test Guideline 414)
Animal testing did not show any effects on fertility.

Other toxic properties**Repeated dose toxicity**

It dissociates into ions that are present physiologically in relatively high levels in vertebrates. Therefore, a study is considered (scientifically) unnecessary.

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

Component:	calcium chloride	CAS-No.
		10043-52-4

Acute toxicity**Fish**

LC50 : 4630 mg/l (Pimephales promelas (fathead minnow); 96 h)

Toxicity to daphnia and other aquatic invertebrates

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LC50 : 2400 mg/l (Daphnia magna; 48 h) (OECD Test Guideline 202)

algae

EC50 : 2900 mg/l (Pseudokirchneriella subcapitata (green algae); 72 h)
(OECD Test Guideline 201)

Chronic toxicity
Fish

study scientifically unjustified

Aquatic invertebrates

study scientifically unjustified

12.2. Persistence and degradability

Component: calcium chloride

CAS-No.

10043-52-4

Persistence and degradability
Persistence

Result : not applicable

Biodegradability

Result : The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Component: calcium chloride

CAS-No.

10043-52-4

Bioaccumulation

Result : Bioaccumulation is not expected.

12.4. Mobility in soil

Component: calcium chloride

CAS-No.

10043-52-4

Calcium Chloride (ALL GRADES)**Mobility**

: no data available

12.5. Results of PBT and vPvB assessment**Component:** calcium chloride**CAS-No.**
10043-52-4**Results of PBT and vPvB assessment**

Result : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects**Additional ecological information**

Result : Do not flush into surface water or sanitary sewer system.

Section 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. Contact waste disposal services.

Contaminated packaging : Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

Section 14: Transport information

Not dangerous goods for ADR, RID, IMDG and IATA.

14.1. UN number

Not applicable.

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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

Not applicable.

14.6. Special precautions for user

Not applicable.

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

IMDG : Not applicable.

Section 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
 Other regulations : Occupational restrictions: Take note of Dir 92/85/EEC on the safety and health of pregnant workers at work and of Dir 94/33/EC on the protection of young people at work.
 :

Notification status
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

no data available

Calcium Chloride (ALL GRADES)**Section 16: Other information****Full text of R-phrases referred to under sections 2 and 3.**

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.