

MATERIAL SAFETY DATA SHEET

Last changed: 2003-04-10

Internal No.: EL 01.124-2

Replaces date: 2001-06-08

Calcium chloride 75-95 %

1. IDENTIFICATION OF SUBSTANCE AND COMPANY



- | | | |
|-------------------------------------|-----------------------------|--------------------------|
| <input type="checkbox"/> | To be revised | <input type="checkbox"/> |
| <input type="checkbox"/> | Approved for laboratory use | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | Approved by Kemira Kemi AB | <input type="checkbox"/> |

Trade name Calcium chloride 75-95 %
Synonyms Calcium chloride, dihydrate; Calcium (II) chloride; ; Calcium chloride; Klorcalcium; Kalcium (II) klorid; Kalciumdiklorid
Application Dust binding, oil exploration, dehumidifying and other areas of application.
Chemical formula CaCl₂
CAS-No. 10043-52-4
EC No. 017-013-00-2
Index No. 233-140-8

Producer/importer Kemira Kemi AB - Chemical Solutions, Inc.
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Country Sweden - United States
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Emergency number +46-8-33 70 43 (ERC) - 1-800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS



No	Ingredient name	EC No.	CAS-No.	Conc. (wt%)	Classification
1	calcium chloride	233-140-8	10043-52-4	75-95 %	Xi,36

Legend: T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, E=Explosive, O=Oxidizing, F+=Extremely flammable, F=Highly flammable, N=Dangerous for the environment

INGREDIENT COMMENTS

The Material Safety Data Sheet is applicable for flakes, granules and powder. In section 16, at subheading List of relevant R-phrases, the full text of the R-phrase/-es in the table above is/are noted.

3. HAZARDS IDENTIFICATION



GENERAL

Spillage causes risk of slipperiness.

HEALTH

The product may act drying on mucous membranes. The product may act as an irritant in the eyes.

ENVIRONMENT

The product increases the hardness of water.

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Bring the patient to fresh air and safety. Eye washing facilities should be available at workplace.

INHALATION

Fresh air.

SKIN CONTACT

Wash the skin with water and soap. Contact a doctor if skin irritation appears.

EYE CONTACT

Rinse immediately the eyes with plenty of water for at least 5 minutes and with the eye lids wide apart. Carefully remove ev contact lenses. Use if possible lukewarm water and a soft water jet. Contact a doctor if irritation occurs.

INGESTION

Drink plenty of water. Induce vomiting. Contact a doctor if major amounts have been swallowed.

5. FIRE FIGHTING MEASURES **EXTINGUISHING MEDIA**

The product does not burn. Use extinguishing media appropriate to the surrounding fire.

IMPROPER EXTINGUISHING MEDIA

None.

FIRE AND EXPLOSION HAZARDS

None.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

Fire-fighting tunic and filtermask.

6. ACCIDENTAL RELEASE MEASURES **PERSONAL PRECAUTIONS**

Use personal protective equipment as per section 8.

ENVIRONMENTAL PRECAUTIONS

Prevent release to ground, air or to water or drain by a retaining dike or by covering the spillage with inorganic (inert) material, e. g. sand, gravel or equivalent. If possible, stop leakage. If the product contaminates sea, lakes or drains, inform appropriate authorities in accordance with local regulations.

METHODS FOR CLEANING UP

Major spillage is carefully collected mechanically and put in a separate, resistant container for later disposal. Minor spill and small remainings can be flushed down the drain together with plenty of water.

OTHER INFORMATION

Spillage may cause slipperiness.

7. HANDLING AND STORAGE **HANDLING ADVICE**

Avoid formation of dust and that the product gets in contact with the skin.

STORAGE

Store in properly sealed original packagings. Store the product under dry conditions and away from moisture.

OTHER INFORMATION

The product is hygroscopic. The product emits heat when dissolved in water.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Ingredient name	Cas nr.	ppm	mg/m3	Year	Notes

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Dust total	-	8 h		10,0	1974	
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EXPOSURE CONTROL

Ensure proper ventilation, especially in confined areas.

RESPIRATORY PROTECTION

Use a breathing apparatus (half mask) with filter P2 when working at insufficient ventilation.

EYE PROTECTION

Use protective glasses at dusty handling.

HAND PROTECTION

Use protective gloves of PVC or neoprene. Penetration time 4-8 h.

Do not use gloves of leather or cotton.

PROTECTIVE CLOTHING

Normal protective clothing is sufficient.

OTHER INFORMATION

Wash contaminated clothes before reuse. The Threshold Limit Value/-s (TLV)-value in the table above is/are valid for Sweden.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Flakes, Granules, Powder.		
Colour:	White.		
Odour:	None.		
Melting point/range:	772°C	Density:	
Expl. limit LEL-UEL%:	-	Solubility in water:	745 g/l (20°C)
Vapor pressure:	insignificant	Saturation conc.:	-
Decomposition temp.:	>1600°C	Rel dens. sat. air (air=1):	-
pH solution:	9-10.5 i 10 % water solution	Boiling point/range:	>1600°C
Flash point:	-	pH concentrate:	-
Molar weight:	111	Viscosity:	-
Ignition temp.:	-	Odour threshold value:	-
Rel.vap.dens.(air=1):	-	Rel evap. velocity.:	-
Air reactive:	-	Water reactive:	-
Bulkdensity g/cm3	ca 0,75-1,0		

10. STABILITY AND REACTIVITY

STABILITY

The product is stable at normal handling.

CONDITIONS / MATERIALS TO AVOID

Calcium chloride reacts violently with a mixture of boron oxide (B₂O₃) and calcium oxide (CaO). A violent polymerization occurs if calcium chloride is mixed with methyl vinyl ether. Calcium chloride reacts violently with bromine trifluoride (BrF₃).

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 = 1000 mg/kg	kanin
Acute dermal toxicity	LD50 = 2630 mg/kg	råtta
Acute toxicity by inhalation	-	-

OTHER TOXICOLOGICAL INFORMATION / LOCAL EFFECTS

Acute oral toxicity is determined in accordance with OECD Guide-line 401.

Skin irritation rabbit: not irritating according to OECD Guide-line 404.

Eye irritation rabbit: irritating according to OECD Guide-line 405.

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The information about oral acute toxicity and irritations refers to dry product.

INHALATION

Dust/fume/gas irritates mucous membranes and the respiratory organs.

SKIN CONTACT

The product may act irritating on the skin. Prolonged contact with skin may cause red spots, smarting pain or wounds.

EYE CONTACT

The product may act irritating to the eyes.

INGESTION

Consumption of the product may cause nausea and irritation to mouth, throat and the digestive system.

MUTAGENIC PROPERTIES

The product is not considered mutagenic. Ames's test on Salmonella typhimurium was negative.

12. ECOLOGICAL INFORMATION **MOBILITY**

Soluble in water and mobile.

DEGRADABILITY

The product is not biodegradable (inorganic product).

BIOACCUMULATION

The product does not bioaccumulate in the aquatic environment.

ECOTOXICITY

LC_{50/96h} fathead minnow: 4630 mg/l.

LC_{50/48h} Daphnia: 2770 mg/l.

LC_{50/120h} Nitzschia linearia: 3130 mg/l.

The product is not acute toxic for water organisms. Information about ecotoxicity refers to dry product.

OTHER INFORMATION

The product increases the water hardness.

13. DISPOSAL CONSIDERATIONS **DIRECTIONS FOR DISPOSAL OF MATERIAL / CONTAINER**

Does not constitute a hazardous waste. Contact when needed local authorities for information if spill or waste not can be recycled. Properly emptied packagings can be recycled. See also section 6 - Accidental release measures!

Relevant EWC-code depends on the use of the product.

14. TRANSPORT INFORMATION

Classified as Dangerous Goods:

 Yes No N/A**OTHER INFORMATION**

Custom's Tarif No: 28 27 20 00.

15. REGULATORY INFORMATION

Kemira

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Classif.:



EC-Label

Yes

No

N/A

R-PHRASES

R36 - Irritating to eyes.

S-PHRASES

S22 - Do not breath dust.

S24 - Avoid contact with the skin.

16. OTHER INFORMATION



VENDOR NOTES

Edition: 0304/ver03 (revised).

Replaces: edition 0106/ver02.

The latest revisions are indicated with a checked box at each section.

LIST OF RELEVANT R-PHRASES

Nr.	R-Phrase text
R36	Irritating to eyes.

ISSUED:

2003-04-10

REVISION HISTORY

Version	Rev. date	Responsible	Changes
1.0.0	1994-11-24	Kemira Kemi AB	
2.0.0	2001-06-08	Kemira Kemi AB, IC.	Totally revised MSDS. Reg no EL. 01.124.
2.0.0	2003-04-10	Kemira Kemi AB, CC-products.	MSDS chaged due to changed Swedish legislation.