SAFETY DATA SHEET
LIQUID CALCIUM CHLORIDE

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

1.1. Product identifier
Product name                    LIQUID CALCIUM CHLORIDE
Chemical name                  (CaCl2)
Product number                 DD.44.07
CAS number                     10043-52-4
EC number                      233-140-8

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses                 Dust control and road base stabilization, ice and snow removal, a clear brine fluid in the oil field, an accelerator for concrete, a brining agent for foods.
Uses advised against           No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet
Supplier                       Koruma Klor Alkali Sanayi ve Ticaret A.Ş.
                                Tesis 3: Denizli Üretim Tesisleri
                                Demokrasi mah. Atatürk cad. No:237
                                Kocabaş kasabası Honaz-Denizli/TÜRKİYE
                                Tel: +90 258 814 52 66 Faks: +90 258 814 52 66
Contact person                 koruma@koruma.com.tr
Manufacturer                   Koruma Klor Alkali Sanayi ve Ticaret A.Ş.
                                Tesis 3: Denizli Üretim Tesisleri
                                Demokrasi mah. Atatürk cad. No:237
                                Kocabaş kasabası Honaz-Denizli/TÜRKİYE
                                Tel: +90 258 814 52 66 Faks: +90 258 814 52 66

1.4. Emergency telephone number
Emergency telephone            Koruma Phone: +90 262 239 22 70

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards               Not Classified
Health hazards                 Eye Irrit. 2 - H319
Environmental hazards          Not Classified

2.2. Label elements
EC number                      233-140-8
LIQUID CALCIUM CHLORIDE

Pictogram

Signal word

Warning

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P264 Wash contaminated skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face 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

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

calcium chloride 32-34 %
cas number: 10043-52-4 EC number: 233-140-8

Classification

Eye Irrit. 2 - H319

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.

Ingestion

Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel.

Skin contact

Rinse with water.

Eye contact

Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.

Protection of first aiders

First aid personnel should wear appropriate protective equipment during any rescue.

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

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

No specific symptoms known.

Ingestion

No specific symptoms known.

Skin contact

No specific symptoms known.

Eye contact

Irritating to eyes.
LIQUID CALCIUM CHLORIDE

4.3. Indication of any immediate medical attention and special treatment needed
Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances:
Harmful gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Small Spillages: Collect spillage. Large Spillages: Absorb spillage with non-combustible, absorbent material. The contaminated absorbent may pose the same hazard as the spilled material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
LIQUID CALCIUM CHLORIDE

Usage precautions

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.

Storage class

Chemical storage.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection

No specific hand protection recommended.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

Respiratory protection

Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

Environmental exposure controls

Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Colourless

Odour

Almost odourless.

pH

7,0-8,5
LIQUID CALCIUM CHLORIDE

Melting point %32 CaCl2 :-27°C %34 CaCl2 : -12°C
Initial boiling point and range %34 CaCl2 : 114°C
Flash point > 100 °C
Upper/lower flammability or explosive limits Not applicable.
Bulk density 1,32±0,02 g/cm3
Solubility(ies) Miscible with water.
Explosive properties Not applicable.
Oxidising properties Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity See the other subsections of this section for further details.

10.2. Chemical stability
Stability Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid
Conditions to avoid There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials
Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products
Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral Notes (oral LD₅₀) Based on available data the classification criteria are not met.
Acute toxicity - dermal Notes (dermal LD₅₀) Based on available data the classification criteria are not met.
Acute toxicity - inhalation Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.
Skin corrosion/irritation Animal data Based on available data the classification criteria are not met.
Serious eye damage/irritation Causes serious eye irritation.
LIQUID CALCIUM CHLORIDE

Respiratory sensitisation
Based on available data the classification criteria are not met.

Skin sensitisation
Based on available data the classification criteria are not met.

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

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

IARC carcinogenicity
None of the ingredients are listed or exempt.

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

Specific target organ toxicity - single exposure
Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure
Not classified as a specific target organ toxicant after repeated exposure.

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
No specific symptoms known.

Ingestion
No specific symptoms known.

Skin contact
No specific symptoms known.

Eye contact
Irritating to eyes.

Route of entry
Ingestion Inhalation Skin and/or eye contact

Target organs
No specific target organs known.

Ecotoxicity
Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity
Based on available data the classification criteria are not met.

Acute toxicity - fish
LC₅₀, 96 hours: 13400 mg/l, Freshwater fish
LC₅₀, 96 hours: 10650 mg/l, Lepomis macrochirus (Bluegill)

Acute toxicity - microorganisms
LC₅₀, 120 hours: 3130 mg/l, Algs

12.2. Persistence and degradability
The degradability of the product is not known.
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12.3. Bioaccumulative potential
Bioaccumulative potential  No data available on bioaccumulation.

12.4. Mobility in soil
Mobility  No data available.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment  This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects
Other adverse effects  None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
General information  The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods  Do not empty into drains.

SECTION 14: Transport information

General  The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number
Not applicable.

14.2. UN proper shipping name
Not applicable.

14.3. Transport hazard class(es)
No transport warning sign required.

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant  No.

14.6. Special precautions for user
Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  Not applicable.

SECTION 15: Regulatory information
LIQUID CALCIUM CHLORIDE

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

National regulations
Health and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.

EU legislation

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

Inventories
EU - EINECS/ELINCS
None of the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet
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.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
CAS: Chemical Abstracts Service.
ATE: Acute Toxicity Estimate.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
EC₅₀: 50% of maximal Effective Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms
Eye Irrit. = Eye irritation

Classification procedures according to Regulation (EC) 1272/2008
Eye Irrit. 2 - H319: : Calculation method.

Training advice
Only trained personnel should use this material.

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DD.44.07
LIQUID CALCIUM CHLORIDE

Hazard statements in full

H319 Causes serious eye irritation.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.