



SAFETY DATA SHEET

Calcium Chloride Solution (35 - 40%)

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

1.1. Product identifier

Product name	Calcium Chloride Solution (35 - 40%)
CAS number	10043-52-4
EU index number	017-013-00-2
EC number	233-140-8

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

Identified uses	Oil & gas field applications as completion and work over fluids, Drilling mud additive to increase density and prevent clay hydration, Base stabilization for road construction and full depth Reclamation, Concrete Acceleration, Grouting agent for mines and oil wells, Freeze-proofing sand for winter road application, Sewage purification aid, flocculent, removal of phosphates and fluorides, Environmental additive for cement kilns, Nitrogen inhibitor for plant fertilizers, Organic calcium fertilizer, Refrigeration fluid, Liquid odor control, Soil pH adjuster, Dust Control, Ice Melting, Water Treatment (Non-potable), Tire Ballast, Antifreeze for recreation vehicles, curling & skating rinks, An additive in many other industrial applications and more...
-----------------	--

Uses advised against	No information available.
----------------------	---------------------------

1.3. Details of the supplier of the safety data sheet

Manufacturer	Jubail Chemical Industries Company (JANA) Tareeq 263, Jubail 1, Jubail Industrial City, 31961 Kingdom of Saudi Arabia, (PO Box 10661) Tel. +966 13 3585002 Fax. +966 13 3583192 safety@nama.com.sa
--------------	---

Only Representative REACH 1907/2006/EC Article 8	NAMA Germany Teichstrasse 38 D-79539 Lörrach Tel. + 49 762 1940 5410 Fax. + 49 762 1940 5420
---	--

1.4. Emergency telephone number

Emergency telephone	Emergency CONTACT (24-Hour-Number):GBK GmbH +49 (0)6132-84463
---------------------	---

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H302 Eye Irrit. 2 - H319
Environmental hazards	Not Classified

2.2. Label elements

Calcium Chloride Solution (35 - 40%)

EC number 233-140-8

Hazard pictograms



Signal word Warning

Hazard statements H302 Harmful if swallowed.
H319 Causes serious eye irritation.

Precautionary statements P264 Wash contaminated skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
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.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

calcium chloride	30-60%
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 Promptly remove any clothing that becomes contaminated.

Inhalation IF INHALED: Get medical attention if any discomfort continues. Remove person to fresh air and keep comfortable for breathing.

Ingestion IF SWALLOWED: Get medical attention immediately. Rinse mouth thoroughly with water. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical.

Skin contact IF ON SKIN: Not irritating. Rinse immediately with plenty of water.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention if symptoms are severe or persist after washing.

Protection of first aiders Wear protective clothing as described in Section 8 of this safety data sheet.

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

General information No information available.

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

Notes for the doctor If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Calcium Chloride Solution (35 - 40%)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is not flammable.

5.2. Special hazards arising from the substance or mixture

Specific hazards No information available.

5.3. Advice for firefighters

Special protective equipment for firefighters No information available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Spilled material may cause a slipping hazard. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Clean contaminated objects and areas thoroughly, observing environmental regulations.

6.4. Reference to other sections

Reference to other sections Follow precautions for safe handling described in this safety data sheet. For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid contact with skin, eyes and clothing. Wash at the end of each work shift and before eating, smoking and using the toilet. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not allow contact with Methyl vinyl products (possibly causing runaway polymerization)

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container. Protect from moisture. Product may become a solid at temperatures below 0°C (32°F) (concentrations above 36% calcium chloride).

7.3. Specific end use(s)

Specific end use(s) Product shipped/handled hot can cause thermal burns. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

No exposure limits known for ingredient(s).

8.2. Exposure controls

Protective equipment



Calcium Chloride Solution (35 - 40%)

Appropriate engineering controls	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.
Personal protection	Keep away from food, drink and animal feeding stuffs. Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Avoid contact with skin and eyes.
Eye/face protection	Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	Wear protective gloves. For users with sensitive skin, it is recommended that suitable protective gloves are worn. It is recommended that gloves are made of the following material: Nitrile rubber. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.
Hygiene measures	Keep away from food, drink and animal feeding stuffs. Wash hands thoroughly after handling. Avoid contact with skin, eyes and clothing. Use appropriate skin cream to prevent drying of skin.
Respiratory protection	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: High efficiency particulate air (HEPA) N95. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Straw. Light brown.
Odour	Mild Organic Odour
pH	5 - 9 @ 10% Solution
Freezing Point	-7°C 35% 16°C 40%
Initial boiling point and range	115 - 120°C
Flash point	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Specific gravity	1.357 - 1.416 @ 25°C
Solubility(ies)	Completely Miscible with water.
Organic solvents	0.0%

Calcium Chloride Solution (35 - 40%)

VOC (EC)	0.00%
VOC (CH)	0,00%
Solid content	35 - 40%
TOC	2% (max)

Volatile by Wt:

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid No information available.

10.5. Incompatible materials

Materials to avoid Avoid contact with: Sulfuric acid. Corrosive to some metals. Avoid contact with metals such as brass, ferrous metals, and mild steel. Flammable hydrogen may be generated from contact with metals such as: Zinc. Sodium. Reaction of bromide impurity with oxidizing materials may generate trace levels of impurities such as bromate.

10.6. Hazardous decomposition products

Hazardous decomposition products No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Harmful if swallowed.

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 918 - 1668 mg/kg, Oral, Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >5,000 mg/kg, Dermal, Rabbit

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

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

Germ cell mutagenicity

Calcium Chloride Solution (35 - 40%)

Summary The data presented are for the following material: Calcium chloride (CaCl₂) - In vitro genetic toxicity studies were negative. The data presented are for the following material: Potassium chloride - In vitro genetic toxicity studies were positive. However, the relevance of this to humans is unknown. For the minor component(s): Sodium chloride - In vitro genetic toxicity studies were predominantly negative

Carcinogenicity

Carcinogenicity This product is not classified as a carcinogen by NTP, IARC or OSHA.

Reproductive toxicity

Reproductive toxicity - development For the major component(s): Did not cause birth defects or any other fetal effects in laboratory animals.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

General information

For the minor component(s): Potassium chloride - In animals, effects have been reported on the following organs after ingestion: Gastrointestinal tract, Heart, and Kidney. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use. Medical experience with sodium chloride has shown a strong association between elevated blood pressure and prolonged dietary overuse. Related effects could occur in the kidneys.

SECTION 12: Ecological information

General Notes Avoid the spillage or runoff entering drains, sewers or watercourses.

12.1. Toxicity

Toxicity No information available.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulative potential No information available.

12.4. Mobility in soil

Mobility No information available.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Calcium Chloride Solution (35 - 40%)

General information	Reuse or recycle if possible. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Reclaimer. Waste water treatment system.
Disposal methods	Dispose of waste product or used containers in accordance with local regulations Dispose of waste via a licensed waste disposal contractor. Control run-off water by containing and keeping it out of sewers and watercourses.
European waste catalogue:	06 03 14 solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13

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.

Transportation Additional Information: ADR/IMDG

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

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

15.2. Chemical safety assessment

SECTION 16: Other information

Calcium Chloride Solution (35 - 40%)

Abbreviations and acronyms used in the safety data sheet	<p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association"(IATA).</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>IATA: International Air Transport Association.</p> <p>GHS: Globally Harmonized System.</p> <p>EINECS: European Inventory of Existing Commercial and Chemical Substances</p> <p>CAS: Chemical Abstracts Service.</p> <p>VOCV: Lengkungsabgabe auf fluchtingen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)</p> <p>VOC: Volatile Organic Compounds (USA,EU)</p> <p>LC₅₀: Lethal Concentration to 50 % of a test population.</p> <p>LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p> <p>Acute Tox. 4 - H302</p> <p>Eye Irrit. 2A - H319</p>
Revision date	22/07/2020
Revision	00
SDS number	4770
Hazard statements in full	<p>H302 Harmful if swallowed.</p> <p>H319 Causes serious eye irritation.</p>
Disclaimer	<p>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.</p>