

# Calcium Chloride Brine

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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Version: 2.0

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Calcium Chloride Brine

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

Use of the substance/mixture : Industrial processing & uses

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

Martin Marietta Magnesia Specialties  
1800 Eastlake Road  
Manistee, Michigan 49660 - USA  
T +001 410 780 5500

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC, U.S.: 1-800-424-9300 INTERNATIONAL: +1-703-527-3887 Available 24/7

### SECTION 2: Hazards identification

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

##### Classification (GHS-US)

Eye Irrit. 2A H319

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : H319 - Causes serious eye irritation  
Precautionary statements (GHS-US) : P264 - Wash thoroughly after handling  
P280 - Wear protective gloves/eye 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

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

1 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)  
1 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)  
1 percent of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

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### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Water	(CAS No) 7732-18-5	65 - 75	Not classified
Calcium chloride	(CAS No) 10043-52-4	20 - 30	Eye Irrit. 2A, H319
Sodium chloride	(CAS No) 7647-14-5	<= 5	Not classified
Potassium chloride	(CAS No) 7447-40-7	<= 1	Not classified
Strontium chloride	(CAS No) 10476-85-4	<= 1	Eye Dam. 1, H318
Magnesium chloride	(CAS No) 07786-30-3	<= 1	Not classified

Full text of H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. If large quantities of this material are swallowed, call a physician immediately.

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

- Symptoms/injuries after eye contact : Causes serious eye irritation.

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

All treatments should be based on observed signs and symptoms of distress in the patient.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Not combustible. Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : None known.

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

- Fire hazard : No particular fire or explosion hazard.
- Reactivity : Reacts with: incompatible materials.

### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Avoid contact with eyes.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection. Use splash goggles when eye contact due to splashing is possible.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : None known.

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Hygiene measures : Wash hands thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place.  
Incompatible products : Bromine trifluoride. Furan-2-peroxycarboxylic acid.

### 7.3. Specific end use(s)

Industrial processing & uses

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No OELs for the product or components have been established.

### 8.2. Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Avoid splashing.  
Personal protective equipment : Avoid all unnecessary exposure.  
  
Hand protection : Wear water impervious gloves.  
Eye protection : In case of splashing or aerosol production: protective goggles.  
Other information : Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Appearance : Clear to slightly hazy liquid.  
Color : Clear to tan  
Odor : Mild  
Odor threshold : No data available  
pH : 7.6  
Melting point : -11 - -30 °C  
Freezing point : -11 - -30 °C  
Boiling point : 102 – 107 °C  
Flash point : No data available  
Relative evaporation rate (butyl acetate=1) : No data available  
Flammability (solid, gas) : No data available  
Explosive limits : No data available  
Explosive properties : No data available  
Oxidizing properties : No data available  
Vapor pressure : No data available  
Relative density : 1.22 - 1.27  
Relative vapor density at 20 °C : No data available  
Solubility : Totally soluble in water in all proportions.  
Log Pow : No data available  
Log Kow : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity : No data available  
Viscosity, kinematic : No data available  
Viscosity, dynamic : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with: incompatible materials

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### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Contact with incompatible materials.

### 10.5. Incompatible materials

Bromine trifluoride. Furan-2-peroxycarboxylic acid.

### 10.6. Hazardous decomposition products

Chlorides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Potassium chloride (7447-40-7)	
LD50 oral rat	3020 mg/kg
ATE US (oral)	3020.000 mg/kg

Magnesium chloride (07786-30-3)	
LD50 oral rat	> 5000 mg/kg bodyweight Read-across CAS 7791-18-6; no mortalities
LD50 dermal rat	> 2000 mg/kg Read-across CAS 7791-18-6; no mortalities

Sodium chloride (7647-14-5)	
LD50 oral rat	3550 mg/kg
LD50 dermal rat	> 10000 mg/kg
LC50 inhalation rat (mg/l)	> 42 mg/l/4h 1 hour
ATE US (oral)	3550.000 mg/kg bodyweight
ATE US (dust, mist)	10.500 mg/l/4h

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
Specific target organ toxicity (single exposure) : Not classified  
Specific target organ toxicity (repeated exposure) : Not classified  
Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms

Symptoms/injuries after eye contact : Causes serious eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

Potassium chloride (7447-40-7)	
LC50 fish 1	880 mg/l Pimephales promelas 96 hr
EC50 Daphnia 1	440 - 880 48 hr
ErC50 (algae)	> 100 mg/l
NOEC (chronic)	500 mg/l 7 day

Magnesium chloride (07786-30-3)	
LC50 fish 1	2119 mg/l
EC50 Daphnia 1	548 mg/l

Sodium chloride (7647-14-5)	
LC50 fish 1	5840 mg/l 96 hour; Lepomis macrochirus
EC50 Daphnia 1	4136 mg/l 48 h

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<b>Sodium chloride (7647-14-5)</b>	
NOEC (acute)	1500 mg/l Daphnia; 7 d
NOEC chronic fish	252 mg/l 33 day

### 12.2. Persistence and degradability

<b>Calcium Chloride Brine</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>Calcium Chloride Brine</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not considered a dangerous good for transport regulations

### Additional information

Other information : No supplementary information available.

### ADR

No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

<b>Calcium chloride (10043-52-4)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Potassium chloride (7447-40-7)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Strontium chloride (10476-85-4)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Sodium chloride (7647-14-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### CANADA

<b>Calcium chloride (10043-52-4)</b>
Listed on the Canadian DSL (Domestic Substances List)

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### Potassium chloride (7447-40-7)

Listed on the Canadian DSL (Domestic Substances List)

### Strontium chloride (10476-85-4)

Listed on the Canadian DSL (Domestic Substances List)

### Sodium chloride (7647-14-5)

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

#### Calcium chloride (10043-52-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Potassium chloride (7447-40-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Strontium chloride (10476-85-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Magnesium chloride (07786-30-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Sodium chloride (7647-14-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Irrit 2 ; H319

### National regulations

#### Potassium chloride (7447-40-7)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

#### Magnesium chloride (07786-30-3)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on Taiwan National Chemical Inventory

Listed on KECI (Korean Existing Chemicals Inventory)

#### Sodium chloride (7647-14-5)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on KECI (Korean Existing Chemicals Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on Taiwan National Chemical Inventory

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

Indication of changes : GHS classification information.

Revision date : 06/03/2015

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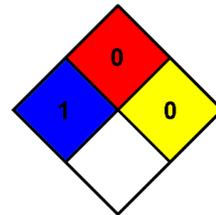
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

- Data sources : ACGIH (American Conference of Government Industrial Hygienists).  
Chemical Inspection & Regulation Service; accessed at: [http://www.cirs-reach.com/Inventory/Global\\_Chemical\\_Inventories.html](http://www.cirs-reach.com/Inventory/Global_Chemical_Inventories.html)  
European Chemicals Agency (ECHA) Registered Substances list.  
Internal Company test data.  
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. Organisation for Economic Co-operation and Development.
- Abbreviations and acronyms : CAS (Chemical Abstracts Service) number.  
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
- Other information : None.

### Full text of H-phrases:

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
H318	Causes serious eye damage
H319	Causes serious eye irritation

- NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
- NFPA fire hazard : 0 - Materials that will not burn.
- NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012)

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*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*