

**1. General Statements**

Non-Combustible substance, Hygroscopic. freely soluble in water. Aqueous solution reacts alkaline. Acute or chronic health hazards result from the substance.

**2. Chemical identification.**

Name : Calcium chloride brine  
CAS number(s) : 10043-52-4  
EC number : 233-140-8  
Molecular formula :  $\text{CaCl}_2$   
Structure :

**3. Uses and Benefits**

CALCIUM CHLORIDE brine is used in the manufacture of bulk, large scale chemicals (including petroleum products). Manufacture of textiles, leather, fur. Agriculture, forestry and fishing, Mining (without offshore industries) It is used in the Manufacture of basic metals, including alloys and fine chemicals.

**4. Physical / chemical properties**

| Property             | Value                                    |
|----------------------|------------------------------------------|
| Physical state :     | Liquid                                   |
| Colour :             | colourless                               |
| Odour :              | Odourless                                |
| pH :                 | 4 – 7                                    |
| Melting point :      | NDA                                      |
| Boiling point :      | 100 – 120 °C                             |
| Flash point :        | NDA                                      |
| Density :            | 1155 – 1420 Kg/m <sup>3</sup> (Relative) |
| Solubility in Water: | NDA                                      |

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#### 5. Health Effects

| Effect Assessment                                              | Result                        |
|----------------------------------------------------------------|-------------------------------|
| Acute toxicity (Oral / inhalation / dermal )                   | NA                            |
| Irritation / corrosion<br>Skin / eye/ respiratory tract        | Causes serious eye irritation |
| Respiratory or skin sensitisation                              | NA                            |
| Toxicity after repeated exposure<br>Oral / inhalation / dermal | NA                            |
| Genotoxicity / Mutagenicity                                    | NA                            |
| Carcinogenicity                                                | NA                            |
| Toxicity for reproduction                                      | NA                            |

#### 6. Environmental Effects

| Effect Assessment             | Result                       |
|-------------------------------|------------------------------|
| Aquatic toxicity              | Yes                          |
| Fate and behavior             | Result                       |
| Persistence and degradability | Not rapidly degradable       |
| Bioaccumulative potential     | No additional data available |

#### 7. Exposure

##### Human health

Calcium chloride brine is causes serious eye irritation. The exposure must be kept as minimum as possible by the use of appropriate risk management measures suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers. Careless handling or accidental spillage of the chemical could result in exposure to potentially hazardous levels of chemicals. Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

##### Environment:

Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. More information about release measures and accidental release measures are available in the extended safety data sheet.

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### 8. Risk Management Recommendations

#### Human health measures

|                                   |                                                                                                                                                                                                                                                                                             |                                                                           |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Organizational                    | A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet. |                                                                           |
| Protection                        | Eye protection:                                                                                                                                                                                                                                                                             | Safety glasses                                                            |
|                                   | Skin and body protection:                                                                                                                                                                                                                                                                   | Wear suitable protective clothing                                         |
|                                   | Respiratory protection:                                                                                                                                                                                                                                                                     | In case of insufficient ventilation, wear suitable respiratory equipment. |
| Engineering Controls              | Ensure good ventilation of the work station.                                                                                                                                                                                                                                                |                                                                           |
| Environment protective measures   |                                                                                                                                                                                                                                                                                             |                                                                           |
| Avoid release to the environment. |                                                                                                                                                                                                                                                                                             |                                                                           |

### 9. First-aid measures

**First-aid measures after inhalation:**Remove the person to fresh air and keep them comfortable for breathing.

**First-aid measures after skin contact:**Wash skin with plenty of water.

**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 :**Call a poison center or a doctor if you feel unwell.

### 10. Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing media:**Water spray. Dry powder. Foam. Carbon dioxide.

**Unsuitable extinguishing media :**Do not use a heavy water stream..

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

**Hazardous decomposition products in case of fire:** Toxic fumes may be released.

#### Advice for firefighters

**Precautionary measures fire:** Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.

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**Fire fighting instructions:** Fight fire from a safe distance and protected location. Do not enter a fire area without proper protective equipment, including respiratory protection.

### 11. Accidental release measures

**Protective equipment :** Wear recommended personal protective equipment. such as Protective gloves, Wear protective clothing, etc

**Environmental precautions:** Avoid release to the environment. Harmful to aquatic life with long lasting effects.

**For containment :** Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leaks without risks if possible.

### 12. Disposal consideration

**Regional legislation (waste) :** Disposal must be done according to official regulations.

**Waste treatment methods :** Dispose of contents/container in accordance with licensed collector's sorting instructions.

**Sewage disposal recommendations :** Disposal must be done according to official regulations.

### 13. Handling and storage

**Precautions for safe handling:** Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

**Hygiene measures:** Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 14. Classification and Labeling

Hazard pictograms (GHS US)

:



Signal word (GHS US)

: Warning

Hazard statements (GHS US)

: H319 - Causes serious eye irritation

Precautionary statements (GHS US)

: P264 - Wash hands, forearms and face thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing 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 or attention.

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### 15. Conclusion

Non-Combustible liquid, Hygroscopic. freely soluble in water. Aqueous solution reacts alkaline. Acute or chronic health hazards result from the substance. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment. This is a common intermediate in the production. CALCIUM CHLORIDE brine causes serious eye irritation. Analogous to acute exposure repeated exposure to CC dusts must also be expected to trigger strong irritations. Low hazard to waters. Inform the responsible authorities when very large quantities get into water, drainage, sewer, or the ground. More information about release measures and accidental release measures are available in the extended safety data sheet. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

### 16. Contact Information within company

#### **Manufacturer**

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This GPS safety summary is intended to give general information about the health, safety and environment and not intended to provide in-depth details. To obtain the most accurate and current information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.