

1. General Statement

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

2. Chemical identity

Name : CALCIUM CHLORIDE

CAS number : 10043-52-4

EC number : 233-140-8

Molecular formula : CaCl_2

Structure :



3. Uses and Benefits

CALCIUM CHLORIDE 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 :	Solid
Colour :	White to grey
Odour :	Odourless
pH :	8-10 (20 °C)
Melting point	782 °C (1013 hPa)
Boiling point :	1935 °C (1013 hPa)
Flash point :	Not Applicable
Density :	2150 kg/m ³ (25 °C)
Solubility in Water:	74.5 g/100ml

5. Health Effects

Effect Assessment	Result
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CL-4: PUBLIC

Acute toxicity (Oral / inhalation / dermal)	NA
Irrit/ corrosion Skin / eye/ respiratory tractation	NA
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure 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	No additional information available.
Bioaccumulative potential	No additional information available.

7. Exposure

Human health

CALCIUM CHLORIDE is Irritating effects on the skin and the mucosae, disorders in the digestive tract after exposure to higher oral doses. The probability of exposure to workers is expected to be low because this product is manufactured in an enclosed controlled environment and is transported in well sealed containers. Workers may be exposed during (un)loading, mixing, sampling, analysis or maintenance operations and particularly in case of batch processes. 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. 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

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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.

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 foot protection
	Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.
Engineering controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.Ensure good ventilation of the work station.	
Environment protective measures		
Do not attempt to take action without suitable protective equipment. Exposure controls/personal protection".		

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

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Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

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

Hazardous decomposition products in case of fire On burning: release of toxic and corrosive gases/vapours (hydrogen chloride, chlorine).

Precautionary measures fire:Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.

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

11. Accidental release measures

Protective equipment : Gloves (EN 374). Safety glasses (EN 166). Protective clothing (EN 14605 or EN 13034). Dust cloud production: self-contained breathing apparatus (EN 136 + EN 137).

Emergency procedures:Ventilate spillage area. Avoid contact with skin and eyes.

For containment:Using a clean shovel, put the material in a dry container and cover without compressing it.

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

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Hazard pictograms (GHS US)



Signal word (GHS US)

Hazard statements (GHS US)

Precautionary statements (GHS US)

- : Warning
- : H319 - Causes serious eye irritation
- : 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.

15. Conclusion

CALCIUM CHLORIDE is a White odourless solid. Not Combustible substance, hygroscopic in nature. freely soluble in water. Aqueous solution reacts alkaline. 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 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.

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 environmental 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.