



Safety Data Sheet

Calcium Chloride 20% - 40%

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Identifier

Product name : Calcium Chloride 20% - 40%
Proper Shipping name : Calcium Chloride Solution

Details of the supplier of the safety data sheet

Supplier: Chemical Industries (Far East) Limited
(Head office) 3, Jalan Samulun, Jurong Town, Singapore 629127
Tel: 6265 0411 Fax: 6265 6690 Email: chemical.ind@cil.sg
Emergency telephone number 6265 0411 (Head Office)

Issue date: 3 June 2019
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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification

Hazard Class	Category	Hazard	
		Statement	Precautionary Statements
Acute Toxicity - Oral	Category 4	H302	P264, P270, P301+P312, P330, P501
Skin Corrosion / Irritation	Category 2	H315	P264, P280, P302+P352, P321, P332+P313, P362
Eye Damage / Irritation	Category 1	H318	P280, P305+P351+P338, P310
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 2	H373	P260, P314, P501



GHS label Elements
Signal Word: DANGER



Hazard Statements:

Hazard Number	Hazard Statement
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:

Precautionary Number	Precautionary Statement
P260	Do not breathe dust, fumes or mist.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves and eye protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to d Continue rinsing.
P310	Immediately call a POISON CENTER or physician.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water).
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical attention.
P362	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

WHMIS Classification

WHMIS classification is not included based on the recommended option (option 4) found in the Canada Gazette Part II, Vol.149, No.3, page 458

Hazard not Otherwise classified or covered by GHS

Data not available

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H ₂ O	18.01 g/mol	7732-18-5	74.43%
Calcium Chloride Dihydrate	CaCl ₂ ·2H ₂ O	147.02 g/mol	10035-04-8	25.57%



4. FIRST AID MEASURES

General First Aid Information

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause slight irritation.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water. May cause slight irritation.

Ingestion: IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Dilute with water or milk. Call a physician if necessary. Ingestion may cause serum acidosis.

Most Important Symptoms and Effects, Acute and Delayed

Does not present any significant health hazards. Wash areas of contact with water. Ingestion may cause serum acidosis. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

Medical Attention or Special Treatment Needed

Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water).

5. FIRE FIGHTING MEASURES

Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

Special Protective Equipment for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.



7. HANDLING AND STORAGE

Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Data not available.				

Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Wear protective gloves and eye protection. Chemical resistant gloves.

Eye Protection: Wear protective gloves and eye protection. Safety glasses or goggles.

Personal Protective Equipment

Wear protective gloves and eye protection. Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	: Colorless liquid
Physical State	: Liquid
Odor	: Data not available
Odor Threshold	: Data not available
pH	: 8-9
Melting/Freezing Point	: Data not available
Initial Boiling Point /Range	: Approximately 100°C - Approximately 100°C
Flash Point	: Data not available
Evaporation Rate	: Data not available
Flammability	: Data not available
Flammability/Explosive Limits	: Data not available
Vapor Pressure	: Data not available
Vapor Density	: Data not available
Relative Density	: 1.17
Solubility	: Miscible
Partition Coefficient (n-Octanol/Water)	: Data not available
Auto-Ignition Temperature	: Data not available
Decomposition Temperature	: Data not available
Viscosity	: Data not available
Explosive Properties	: Data not available
Oxidizing Properties	: Data not available



10. STABILITY AND REACTIVITY

Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

Possibility of Hazardous Reactions

Data not available.

Conditions to Avoid and Incompatible Materials

Methyl vinyl ether, Zinc, Boric Acid plus Calcium Oxide, and Bromine Trifluoride.

Hazardous Decomposition Products

Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Intraperitoneal, Mouse: (Calcium Chloride Dihydrate) 20,500 mg/kg, details of toxic effects not reported other than lethal dose value.

Skin Corrosion and Irritation:

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Serious Eye Damage and Irritation:

Causes serious eye damage. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.



Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not applicable.

Persistence and Degradability

Data not available.

Bioaccumulative Potential

Data not available.

Mobility in Soil

Data not available.

Other Adverse Ecological Effects

Data not available.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Data not available.

14. TRANSPORT INFORMATION

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

Not regulated according to IATA Regulations.



15. REGULATORY INFORMATION

Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Not listed.

Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Not listed.

Massachusetts Right-to-Know Substance List

Not listed.

Pennsylvania Right-to-Know Hazardous Substances

Water (CAS # 7732-18-5): Present

New Jersey Worker and Community Right-to-Know Components

Not listed.

California Proposition 65

Not listed.

Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Calcium Chloride Dihydrate (CAS # 10035-04-8): Present (DSL)

Water (CAS # 7732-18-5): Present (DSL)

United States of America Toxic Substances Control Act (TSCA) List

Calcium Chloride Dihydrate (CAS # 10035-04-8): Present

Water (CAS # 7732-18-5): Present

European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

16. OTHER INFORMATION

Full Text of Hazard Statements and Precautionary Statements

Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.

Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves and eye protection.



IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water). Rinse mouth. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse. Dispose of contents in accordance with local, state, federal and international regulations.

Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class

Physical Hazards Not Otherwise Classified (PHNOC)

Health Hazards Not Otherwise Classified (HHNOC)

: Not Applicable.

: Not Applicable

: Not Applicable

Not Applicable



16.3. National Fire Protection Association (NFPA) Rating

Health : 1

Flammability : 0

Reactivity : 0

Special Hazard :

Disclaimer:

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and CHEMICAL INDUSTRIES (FAR EAST) LIMITED assumes no legal responsibility or liability whatsoever resulting from its use.