



Calcium Chloride Solution

1. PRODUCT AND COMPANY IDENTIFICATION

TETRA Technologies, Inc. 25025 I-45 North The Woodlands, TX 77380	CHEMTREC (24-Hr Emergency Response):	U.S. Toll Free (800) 424-9300 International +1 703-527-3887
	Poison Control:	(800) 222-1222
	Non-emergency Customer Service:	(281) 367-1983
Synonyms:	Liquid Calcium Chloride, Road Master™, Superset™, Food Grade Liquid Calcium Chloride	
Chemical Family:	Inorganic Salt	
MSDS Creation Date:	01 Mar 94	
MSDS Revision Date:	23 Oct 07	

2. HAZARDS IDENTIFICATION

HMIS Ratings: (Scale 0-4)	Health: 1	Fire: 0	Reactivity: 0
EMERGENCY OVERVIEW:	Odorless, clear to amber liquid. May cause skin, respiratory tract, and eye irritation.		
Potential Health Effects			
Skin Contact:	May cause minor irritation.		
Eye Contact:	May irritate or burn eyes.		
Inhalation:	Mist inhalation may cause minor irritation.		
Ingestion:	May irritate gastrointestinal tract and cause nausea and vomiting.		

3. COMPOSITION, INFORMATION ON INGREDIENTS

CAS Number	Wt. %	Ingredient Name
10043-52-4	20-45%	Calcium Chloride

4. FIRST AID MEASURES

Skin Contact:	Remove contaminated clothing and shoes. Wash affected area with soap or mild detergent.
Eye Contact:	Flush eyes thoroughly with water for at least 15 to 20 minutes. Seek medical attention.
Inhalation:	Remove from exposure. If breathing is difficult or irritation develops, seek medical attention.
Ingestion:	Get medical attention.
Notes to Physician:	Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flash Point:	Not applicable
Extinguishing Media:	Use extinguishing media appropriate for surrounding fire.
Fire Fighting:	Negligible fire hazard; not applicable.
Fire and Explosion Hazard:	Negligible
Products of Combustion:	Non-combustible



Calcium Chloride Solution

6. ACCIDENTAL RELEASE MEASURES

Evacuation and Safety:	Wear appropriate protective gear for the situation. See personal protection information in Section 8.
Containment of Spill:	For small spills, take up with sand or other absorbent material and place in containers for disposal. For larger spills, dike far ahead of spill for later disposal.
Cleanup and Disposal:	For small spills, take up with sand or other absorbent material and place in containers for disposal. For larger spills, dike far ahead of spill for later disposal.

7. HANDLING AND STORAGE

Handling:	Avoid skin and eye contact and breathing vapors or mists. Wash thoroughly after handling. Launder contaminated clothing before reuse.
Storage:	Observe all federal, state, and local regulations when storing this product. Store in a tightly closed container away from incompatible materials. Do not store in metals which this solution corrodes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:	Provide local exhaust ventilation system. Where there is possibility of exposure, eye wash fountain and safety shower should be provided within the immediate work area for emergency use.
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Exposure Limits: ACGIH – (TLV-TWA) Guideline for nuisance particulate (liquefied mist): 10 mg/m³

Personal Protective Equipment (PPE)

Eyes:	Wear safety glasses with splash shields or safety goggles/shields.
Hands and Feet:	Wear appropriate non-leather protective gloves and boots.
Body:	Wear appropriate normal work clothing. Leather work boots and/or leather products will dehydrate with resultant shrinkage and possible destruction.
Respiratory:	Respirator not generally required. For misty conditions, wear NIOSH approved mist respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description:	Clear to amber liquid
Odor:	Odorless
Boiling Point:	118 °C (244 °F) for 38% solution
Melting Point:	Not available
Specific Gravity (H ₂ O=1):	1.376 @ 25 °C (77 °F) for 38% solution
pH:	3.8 – 9.0
Water Solubility:	Complete
Vapor Density (Air=1):	Not available
Vapor Pressure:	Not available
Freezing Point:	Not available
Flash Point:	Not applicable
Lower/Upper Flame Limits:	Not applicable
Auto-ignition Temperature:	Not applicable

10. STABILITY AND REACTIVITY

Stability and Reactivity:	Stable under normal temperatures and pressures..
Incompatibilities:	Strong oxidizing agents.



Calcium Chloride Solution

Hazardous Decomposition:	None under normal conditions.
Polymerization:	Does not occur under normal temperatures and pressures.
Conditions to Avoid:	None.

11. TOXICOLOGICAL INFORMATION

Toxicity Data:	<p>Anhydrous Calcium Chloride: TD_{LO}: 112/kg, oral, 20 weeks, rat LD_{LO}: 274 mg/kg, subcutaneous, dog LD₅₀: 1000 mg/kg, oral, rat LD₅₀: 264 mg/kg, intraperitoneal, rat See Registry of Toxic Effects of Chemical Substances (RTECS) file for mutagenic and tumorigenic data.</p> <p>Local Effects – Eye, mucous membrane and skin irritant Health Effects – Moderately toxic by ingestion. Slightly toxic by dermal absorption.</p>
Carcinogen Status:	OSHA – No NTP – No IARC – No

12. ECOLOGICAL INFORMATION

Product will not biodegrade or bioaccumulate.

13. DISPOSAL INFORMATION

Observe all federal, state, and local regulations when disposing of this substance.

14. DEPARTMENT OF TRANSPORTATION (DOT) TRANSPORT INFORMATION

Shipping Name:	Not regulated
ID Number:	Not applicable
Hazard Class or Division:	Not applicable
Packing Group:	Not applicable
Labeling Requirements:	Not applicable
Packing Authorizations:	
Exceptions:	Not applicable
Non-bulk Packing:	Not applicable
Bulk Packing:	Not applicable
Quantity Limitations:	
Passenger Aircraft:	Not applicable
Cargo Aircraft Only:	Not applicable
Vessel Stowage Req.:	Not applicable
Emergency Guide Number:	Not applicable

15. REGULATORY INFORMATION

OSHA Process Safety:	No
SARA Title III:	Section 311: Acute Hazard
TSCA Status:	Yes
CERCLA:	No
EINECS Status:	Yes



Calcium Chloride Solution

OSHA Process Safety:	No
California Proposition 65:	No ingredients found on the list
WHMIS Classification:	D2B

16. OTHER INFORMATION

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information.

This information relates to the specific product designated and may not be valid for such product used in combination with any other materials or in any other processes. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability, or completeness. It is the users' responsibility to satisfy themselves as to the suitability and completeness of such information for their own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

TETRA Technologies, Inc. reserves the right to refuse shipment of this product to any consumer who fails to demonstrate the ability to consistently handle and use it safely and in compliance with all applicable laws, rules and regulations. Such demonstration may require on-site inspection of any or all storage, processing, packaging and other handling systems that come in contact with it.

Customers are responsible for compliance with local, state and federal regulations that may be pertinent in the storage, application and disposal of this product.