

TETRA Technologies, Inc.
 Material Safety Data Sheet



Calcium Chloride Solid

1. PRODUCT AND COMPANY IDENTIFICATION

TETRA Technologies, Inc. 24955 Interstate 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:	Briners Grade, EXPRESS [®] , FCC Dry Food Grade Calcium Chloride, TETRA 80 [™] , TETRA 94 [™] , TETRA Flake, TETRA SG [™] , WaterShield [™] , Winter Thaw [™]	
Chemical Family:	Inorganic Salt	
MSDS Creation Date:	15 Nov 04	
MSDS Revision Date:	11/11/2011	

2. HAZARDS IDENTIFICATION

HMIS Ratings: (Scale 0-4)	Health: 1 Fire: 0 Reactivity: 1
EMERGENCY OVERVIEW:	Odorless, white deliquescent flake. Causes eye irritation. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Wash thoroughly after handling. Reacts with water to liberate heat.
Potential Health Effects	
Skin Contact:	Prolonged contact may cause irritation or burns.
Eye Contact:	May irritate or burn eyes.
Inhalation:	Dust inhalation may cause irritation to mucous membranes and respiratory system.
Ingestion:	Ingestion may cause gastrointestinal irritation.

3. COMPOSITION, INFORMATION ON INGREDIENTS

CAS Number	Wt. %	Ingredient Name
10043-52-4	74-100%	Calcium Chloride
Probable Contaminants: Calcium Carbonate, Calcium Hydroxide, Calcium Oxide, Alkali Metal Chlorides, Alkaline Earth Metal Chlorides		

4. FIRST AID MEASURES

Skin Contact:	Remove contaminated clothing and shoes. Wash affected area with soap or mild detergent.
Eye Contact:	Immediately flush eyes thoroughly with large amounts of water or normal saline for 15-20 minutes. Hold eyelids open during flushing. If irritation or adverse symptoms develop, seek medical attention.
Inhalation:	Remove from exposure area to fresh air. Obtain medical attention immediately.
Ingestion:	Do not attempt to give anything by mouth to an unconscious person. If victim is alert and not convulsing, rinse mouth out and give ½ to 1 glass of water to dilute material. Get medical attention.
Notes to Physician:	Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flash Point:	Not applicable
--------------	----------------

N/A = Not Applicable
 N.E. = Not Established

Calcium Chloride Solid (11-2011)

www.tetratrec.com

Page 1 of 4

IMPORTANT: While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

TETRA Technologies, Inc.
 Material Safety Data Sheet



Calcium Chloride Solid

Extinguishing Media:	Use extinguishing media appropriate for surrounding fire.
Fire Fighting:	Move container(s) from fire area if you can do so without risk. Apply cooling water to sides of containers that are exposed to flames until well after the fire is out. Extinguish fire using agent suitable for type of surrounding fire and/or chemicals. Do not use water directly on material. Avoid breathing dusts/vapors. Keep upwind. Use self-contained breathing apparatus and protective clothing. Dike area to prevent runoff and contamination of water sources.
Fire and Explosion Hazard:	Negligible fire hazard when exposed to heat or flame.
Products of Combustion:	Non-combustible

6. ACCIDENTAL RELEASE MEASURES

Evacuation and Safety:	Wear appropriate protective gear for the situation. See personal protection information in Section 8.
Containment of Spill:	Minimize air borne spreading of dust. For dry spills place material in covered, clean, dry container for disposal.
Cleanup and Disposal:	Minimize air borne spreading of dust. For dry spills place material in covered, clean, dry container for disposal.

7. HANDLING AND STORAGE

Handling:	Avoid skin and eye contact and breathing dusts. Wash thoroughly after handling. Launder contaminated clothing before reuse.
Storage:	Observe all federal, state, and local regulations when storing this product. Store in a covered, clean and dry container away from incompatible materials.

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.
Exposure Limits: ACGIH – (TLV-TWA) Guideline for nuisance particulate (inhalable particulate): 10 mg/m ³	
Personal Protective Equipment (PPE)	
Eyes:	Wear safety glasses with side shields or safety goggles/shields.
Hands and Feet:	Wear appropriate protective non-leather protective gloves and boots.
Body:	Wear appropriate protective (impervious) clothing. Leather work boots and/or leather products will dehydrate with resultant shrinkage and possible destruction.
Respiratory:	A respirator is not indicated under normal operating conditions. Use of a NIOSH approved respirator should be based upon the presence of nuisance dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description:	White deliquescent flakes
Odor:	Odorless
Boiling Point: * Estimated	350°F (175°C) – 3500°F (1930°C)
Melting Point: * Estimated	350°F (175°C) – 1420°F (770°C)
Specific Gravity (H ₂ O=1):	2.15 @ 77°F (25°C)
Water Solubility:	40% @ 68°F (20°C) with evolution of heat
Vapor Density (Air=1):	Not applicable
Vapor Pressure:	Not available

N/A = Not Applicable
 N.E. = Not Established

Calcium Chloride Solid (11-2011)

www.tetrathec.com

Page 2 of 4

IMPORTANT: While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

TETRA Technologies, Inc.
 Material Safety Data Sheet



Calcium Chloride Solid

10. STABILITY AND REACTIVITY

Stability and Reactivity:	Reacts exothermically with water
Incompatibilities:	Strong oxidizing agents.
Hazardous Decomposition:	None under normal conditions.
Polymerization:	Does not occur under normal temperatures and pressures.
Conditions to Avoid:	None.

11. TOXICOLOGICAL INFORMATION

<p>Toxicity Data:</p>	<p>Anhydrous Calcium Chloride:</p> <p>TD_{LO}: 112/kg, oral, 20 weeks, rat</p> <p>LD_{LO}: 274 mg/kg, subcutaneous, dog</p> <p>LD₅₀: 1000 mg/kg, oral, rat</p> <p>LD₅₀: 264 mg/kg, interperitoneal, rat</p> <p>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</p> <p>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

15. REGULATORY INFORMATION

SARA Title III:		
Section 302/304:	This product does not contain ingredients listed as an Extremely Hazardous Substance	
Section 311/312:	Immediate (Acute) Health Hazard:	YES
	Delayed (Chronic) Health Hazard:	No
	Fire Hazard:	No
	Reactive Hazard:	YES
	Sudden Release of Pressure Hazard:	No
Section 313:	This product does not contain ingredients (at a level of 1% or greater) on the List of Toxic Chemicals.	

OTHER REGULATORY INFORMATION

N/A = Not Applicable
 N.E. = Not Established

Calcium Chloride Solid (11-2011)

www.tetrathec.com

Page 3 of 4

IMPORTANT: While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

TETRA Technologies, Inc.
Material Safety Data Sheet



Calcium Chloride Solid

TSCA Status:	All components of this product are on the TSCA inventory or are exempt from TSCA inventory requirements under 40 CFR 720.30.
--------------	--

California Proposition 65:	This product does not contain any chemicals known to the State of California to cause cancer.
----------------------------	---

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.

ISSUE DATE:	11/15/2004
PREPARED BY:	TETRA Technologies, Inc. Corporate Health, Safety & Environment
Revision History:	12/20/2007 04/12/2010 11/11/2011

N/A = Not Applicable
N.E. = Not Established

Calcium Chloride Solid (11-2011)

www.tetratec.com

Page 4 of 4

IMPORTANT: While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.