

CTS Industries, Inc.

P.O. Box 12426 Roanoke, Virginia ~ 540-989-8570 ~ Fax 540-989-8571

MATERIAL SAFETY DATA SHEET

CTS-EnviroSafe

FREEZE CONDITIONING AGENT

This MSDS Sheet complies with the style format specified by ANSI Z400 1-1993

SECTION 1: CHEMICAL PRODUCT – COMPANY IDENTIFICATION

CTS INDUSTRIES
P.O. Box 12426
Roanoke, Virginia 24025

(p) (540) 989-8570
(f) (540) 989-8571

(800) 424-9300
(800) 222-1222

CHEMTREC (24 Hour Emergency Response)
POISON CONTROL

SUBSTANCE: Corrosion Inhibited Calcium Chloride Solution
TRADE NAMES/SYNONYMS: None
CHEMICAL FAMILY: Inorganic Salt
MSDS CREATION DATE: 10-20-2004

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

The composition of one of the components of this product is proprietary. In the event of a medical emergency, spill or fire, compositional information will be revealed to responding emergency personnel.

COMPONENT	CAS NUMBER	RTEC'S NUMBER	PERCENTAGE
Calcium Chloride	10043-52-4	EV9800000	30-32%
Corrosion Inhibitor	Proprietary	Proprietary	< 3%
Water	7732-18-5	ZC0110000	70-68%

PROBABLE CONTAMINANT: Calcium Carbonate, Calcium Hydroxide, Calcium Oxide, Alkali Earth Metal Chlorides, Alkaline Earth Metal Chlorides.

SECTION 3: HAZARDS IDENTIFICATION

NFPA RATINGS: (SCALE 0-4): HEALTH=1 FIRE=0 REACTIVITY=1
EMERGENCY OVERVIEW: Fresh liquid odor. Clear light yellow to dark amber color. May cause skin and eye irritation. May be harmful if swallowed.
POTENTIAL HEALTH EFFECTS:
INHALATION: May cause irritation to include shortness of breath.
SKIN CONTACT: May cause irritation.
EYE CONTACT: May cause irritation to include tearing.
INGESTION: May cause nausea.

SECTION 4: FIRST AID MEASURES

INHALATION: Remove from exposure area to fresh air immediately. Get medical attention immediately.
SKIN CONTACT: Remove contaminated clothing and shoes immediately. Wash affected area with soap and large amounts of water. In the case of a burn, cover lightly with sterile dressing. Get medical attention immediately.
EYE CONTACT: Flush eyes immediately with large amounts of water. Get medical attention immediately.
INGESTION: Do not induce vomiting. Get medical attention immediately.
NOTE TO PHYSICIAN: Antidote: No specific antidote.

SECTION 5: FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD: Negligible fire hazard when exposed to heat or flame.

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EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, water spray or regular foam. For larger fires, use water spray, fog or regular foam (1996 North American Emergency Response Guidebook, RSPA P 5800.7).

FIREFIGHTING: Move container(s) from fire area if you can without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of drums and/or ends of tanks. Extinguish fire using agent suitable for type of surrounding fire and/or chemicals. Do not use water directly on material. Avoid breathing corrosive vapors; keep upwind. Dike area to prevent runoff and contamination of water sources.

HAZARDOUS COMBUSTION PRODUCTS: Thermal decomposition products may include toxic, hazardous and corrosive fumes of chlorine, hydrogen chloride and oxides of carbon and nitrogen. Product may react with some metals (aluminum, zinc, tin, etc.) to release flammable hydrogen gas.

SECTION 6: ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL SPILL: Do not touch spilled material. Stop leak if you can without risk. For small spills, take up with sand or other absorbent material and place in containers for disposal. Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. Deny entry to nonessential personnel and isolate hazard.

SECTION 7: HANDLING AND STORAGE

Observe all federal, state and local regulations when storing this product. Store in a tightly closed container and away from incompatible materials.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS: No occupational exposure limits established by OSHA/ACGIH/NIOSH.

VENTILATION: Provide local exhaust ventilation system.

EYE PROTECTION: Wear safety glasses with splash shields or safety goggles/shield.

EMERGENCY WASH FACILITIES: Where there is any possibility that an employee's eyes and/or skin may be exposed to this product, an eye wash fountain and safety shower should be available.

CLOTHING: Wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this product. Leather work boots and/or leather products will dehydrate with resultant shrinkage and possible destruction.

GLOVES: Wear appropriate protective gloves.

RESPIRATOR: Under established uses and normal working conditions, respirator usage is not required. Contamination levels found in the working environment specific to the job assignment may dictate respirator requirements.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS: Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

DESCRIPTION:	Fresh odor. Clear light yellow to dark amber color.
SPECIFIC GRAVITY:	1.28 @ 77°F (25°C)
pH:	5.0-7.0
FLASH POINT:	Not determined
SOLVENT SOLUBILITY:	Miscible in alcohol, acetic acid and acetone
VAPOR PRESSURE:	<0.1 mmHg @ 68°F (20°C)
VAPOR DENSITY:	Not available

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WATER SOLUBILITY:	Soluble
EVAPORATION RATE (BUTYL ACETATE=1):	<1

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY: Stable under normal temperatures and pressures.
CONDITIONS TO AVOID: Flammable, poisonous gases may accumulate in tanks and hopper cars.
INCOMPATIBILITIES: Corrosive towards metals; strong oxidizing agents may produce chlorine gas.
Methyl Vinyl Ether: May initiate exothermic polymerization.
POLYMERIZATION: Has not been reported to occur under normal temperatures and pressures.
HAZARDOUS DECOMPOSITION: Thermal decomposition products may include toxic, hazardous and corrosive fumes of chlorine, hydrogen chloride and oxides of carbon and nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY DATA: (ANHYDROUS CALCIUM CHLORIDE):
TD_{LO}: 112g/kg, oral, 20 weeks, rat
LD_{LO}: 274 mg/kg, subcutaneous, dog
LD₅₀: 1000 mg/kg, oral, rat
LD₅₀: 264 mg/kg, intraperitoneal, rat
Mutagenic data and tumorigenic data-see Registry of Toxic Effects of Chemical Substances (RTECS) file.
CARCINOGEN STATUS: None.
LOCAL EFFECTS: Calcium Chloride is an eye, mucous membrane and skin irritant.
ACUTE TOXICITY LEVEL: Moderately toxic by ingestion, slightly toxic by dermal absorption.

SECTION 12: ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY: LC₅₀ (calcium chloride)-*Nitzschia linearis*-3, 130 mg/l/120 hr in static water.
DEGRADABILITY: Product will not diodegrade or bioaccumulate.

SECTION 13: DISPOSAL INFORMATION

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

SECTION 14: TRANSPORT INFORMATION

DOT Shipping Name-ID Number: Non-regulated.

SECTION 15: REGULATORY INFORMATION

TSCA STATUS (components):	Yes
CERCLA SECTION 103:	No
SARA SECTION 302,304,313:	No
SARA SECTIONS 311.312	
ACUTE HAZARD:	Yes
REACTIVITY HAZARD:	Yes
OSHA Process Safety:	No
California Proposition 65:	No

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SECTION 16: OTHER INFORMATION

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