

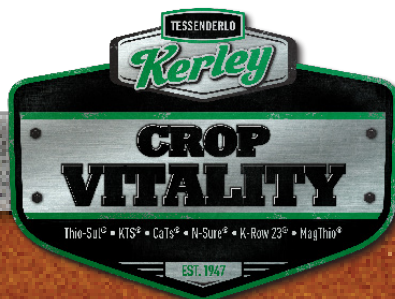


# SAFETY DATA SHEET

SDS Number: 2908 • Revision: June 10, 2016

## SECTION 1: IDENTIFICATION

- 1.1 Product Name:** CaTs®
- 1.2 Other Identification:** Chemical Family: Inorganic salt solution  
Formula:  $\text{CaS}_2\text{O}_3$
- 1.3 Recommended Use of Chemical:** Agricultural Liquid Fertilizer
- 1.4 Manufacturer:** Tessenderlo Kerley, Inc.  
2255 N. 44<sup>th</sup> Street, Suite 300  
Phoenix, Arizona 85008-3279
- Information: (602) 889-8300
- 1.5 Emergency Contact:** Tessenderlo Kerley, Inc. (800) 877-1737  
CHEMTREC (800) 424-9300, Domestic  
(703) 527-3887, International



## SECTION 2: HAZARD(S) IDENTIFICATION

<b>2.1 Hazard Classification:</b>	Health	None
	Physical	None
<b>2.2 Signal Word:</b>	Not applicable	
<b>2.3 Hazard Statement(s):</b>	Not applicable	
<b>2.4 Symbol(s):</b>	Not applicable	
<b>2.5 Precautionary Statement(s):</b>	Not applicable	
<b>2.6 Unclassified Hazard(s):</b>	None	
<b>2.7 Unknown Toxicity Ingredient:</b>	None	

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical Ingredients:** (See Section 8 for exposure guidelines)

Chemical	Synonym Common Name	CAS No.	EINECS No.	% by Wt.
Thiosulfuric acid (H <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ), calcium salt	Calcium thiosulfate	10124-41-1	233-333-7	20 - 30
Water	Water	7732-18-5	231-791-2	Remaining %

## SECTION 4: FIRST AID MEASURES

### 4.1 Symptoms/Effects:

**Acute:** Eye contact may cause eye irritation. Repeated or prolonged skin contact may cause skin irritation. Ingestion may irritate the gastrointestinal tract.

**Chronic:** No known chronic effects.

**4.2 Eyes:** Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to ensure thorough flushing of the entire area of the eye and lids. Obtain medical attention if irritation occurs.

**4.3 Skin:** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.

**4.4 Ingestion:** If victim is conscious, give 2 to 4 glasses of water and induce vomiting by touching finger to back of throat. Obtain medical attention.

**4.5 Inhalation:** Remove victim from contaminated atmosphere. If breathing is labored, administer Oxygen. If breathing has ceased, clear airway and start CPR. Obtain medical attention.

## SECTION 5: FIRE FIGHTING MEASURES

**5.1 Flammable Properties:** (See Section 9, for additional flammable properties)

**NFPA:**      **Health - 1**      **Flammability - 0**      **Reactivity - 0**

**5.2 Extinguishing Media:**

**5.2.1 Suitable Extinguishing Media:** Not flammable, use media suitable for combustibles involved in fire.

**5.2.2 Unsuitable Extinguishing Media:** None known

**5.3 Protection of Firefighters:**

**5.3.1 Specific Hazards Arising from the Chemical:**

**Physical Hazards:** Heating (flames) of closed or sealed containers may cause violent rupture of container due to thermal expansion of compressed gases.

**Chemical Hazards:** Heating causes release of oxides of sulfur. Sulfur dioxide is highly irritating to the eyes, respiratory tract and moist skin.

**5.3.2 Protective Equipment and Precautions for Firefighters:** Firefighters should wear self-contained breathing apparatus (SCBA) and full fire-fighting turnout gear. Keep containers/storage vessels in fire area cooled with water spray.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal Precautions:** Use personal protective equipment specified in Section 8. Isolate the hazard area and deny entry to unnecessary, untrained and unprotected personnel.

**6.2 Environmental Precautions:** Keep out of "waters of the United States" because of potential aquatic toxicity. This product is a non-hazardous liquid fertilizer solution designed to supply Calcium and Sulfur to crops.

**6.3 Methods of Containment:**

**Small Release:** Confine and absorb small releases with sand, earth or other inert absorbents.

**Large Release:** Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbents to prevent runoff into surface waterways (potential aquatic toxicity), storm drains and sewers.

**6.4 Methods for Cleanup:**

**Small Release:** Shovel up the absorbed material and place in drums for disposal as a chemical waste or recycle as a fertilizer as the original product was intended.

**Large Release:** Recover as much of spilled product as possible using portable pump and hoses. Use material as originally intended or dispose of as a chemical waste. Treat remaining product as small release (above).

## SECTION 7: HANDLING AND STORAGE

**7.1 Handling:** Avoid contact with eyes. Use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated contact with the skin.

**7.2 Storage:** Store in well-ventilated areas. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store totes and smaller containers out of direct sunlight at moderate temperatures. (See Section 10.5 for materials of construction.)

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Exposure Guidelines:

Chemical	OSHA PELs		ACGIH TLVs	
	TWA	STEL/C	TWA	STEL
Thiosulfuric acid (H <sub>2</sub> S <sub>2</sub> O <sub>3</sub> ), calcium salt	None	None	None	None
Water	None	None	None	None

**8.2 Engineering Controls:** Keep eye wash/safety showers in areas where product is commonly used.

### 8.3 Personal Protective Equipment (PPE):

**8.3.1 Eye/Face Protection:** Chemical goggles and a full face shield.

**8.3.2 Skin Protection:** Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

**8.3.3 Respiratory Protection:** None required. If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn.

**8.3.4 Hygiene Considerations:** There are no known hazards associated with this product when used as recommended, however common good industrial hygiene practices should be followed, such as washing thoroughly after handling and before eating or drinking.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>9.1 Appearance:</b>	Colorless liquid
<b>9.2 Odor:</b>	Fresh concrete to no odor
<b>9.3 Odor Threshold:</b>	Not determined
<b>9.4 pH:</b>	6.5 – 8.0 (typical)
<b>9.5 Melting/Freezing Point:</b>	Salt-out temperature 32°F (0°C) (Typical)
<b>9.6 Boiling Point:</b>	212°F (100°C) with decomposition
<b>9.7 Flash Point:</b>	Not applicable
<b>9.8 Evaporation Rate:</b>	Not determined
<b>9.9 Flammability:</b>	Not applicable
<b>9.10 Upper/Lower Flammability Limits:</b>	Not applicable
<b>9.11 Vapor Pressure:</b>	37mm Hg @ 100°F
<b>9.12 Vapor Density:</b>	Same as water
<b>9.13 Relative Density:</b>	1.25 – 1.26 (10.4 – 10.5 Lbs/gal) (Typical)
<b>9.14 Solubility:</b>	Complete
<b>9.15 Partition Coefficient:</b>	Data not available
<b>9.16 Auto-Ignition Temperature:</b>	Not applicable
<b>9.17 Decomposition Temperature:</b>	Data not available
<b>9.18 Viscosity:</b>	2.11 cSt @ 25°C

## SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:** Avoid interaction with heat, flames, oxidizers or acids.

**10.2 Chemical Reactivity:** This is a stable product under normal (ambient) temperature and pressure.

**10.3 Possibility of Hazardous Reactions:** Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness.

**10.4 Conditions to Avoid:** High heat or fire conditions.

**10.5 Incompatible Materials:** Strong oxidizers (See Section 10.3). Acids will cause the release of Sulfur dioxide, a severe respiratory hazard. **CaTs® is not compatible with; carbon steel, copper or zinc or any of their alloys including brass, bronze or galvanized materials.** These materials should not be utilized in handling systems or storage containers for this product.

**10.6 Hazardous Decomposition Products:** Calcium oxide and Oxides of Sulfur. Sulfur dioxide is a severe respiratory irritant.

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>11.1 Oral:</b>	Oral Rat (female) LD <sub>50</sub> : > 2,000 mg/Kg (OECD 425)
<b>11.1.1:</b>	Interperitoneal Rat LD <sub>LO</sub> : 573 mg/Kg (calcium thiosulfate)
<b>11.1.2:</b>	Intravenous Rat LD <sub>LO</sub> : 344 mg/Kg (calcium thiosulfate)
<b>11.1.3:</b>	Intraperitoneal Mouse LD <sub>50</sub> : 115 mg/Kg (calcium thiosulfate)
<b>11.2 Dermal:</b>	No data available
<b>11.3 Inhalation:</b>	No data available
<b>11.4 Eye:</b>	No data available
<b>11.5 Chronic/Carcinogenicity:</b>	Not listed in NTP, IARC or OSHA
<b>11.6 Teratology:</b>	No data available
<b>11.7 Reproduction:</b>	No data available
<b>11.8 Mutagenicity:</b>	No data available

## SECTION 12: ECOLOGICAL INFORMATION

<b>12.1 Ecotoxicity:</b>	No data available
<b>12.2 Persistence &amp; Degradability:</b>	No data available
<b>12.3 Bioaccumulative Potential:</b>	This product is not bioaccumulative
<b>12.4 Mobility in Soil:</b>	No data available
<b>12.5 Other Adverse Effects:</b>	No data available

## SECTION 13: DISPOSAL CONSIDERATIONS

Consult federal, state and local regulations for disposal requirements.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 Basic Shipping Description:

<b>14.1.1 Proper Shipping Name:</b>	Calcium thiosulfate solution (Not regulated by DOT)
<b>14.1.2 Hazard Classes:</b>	Not applicable
<b>14.1.3 Identification Number:</b>	Not applicable
<b>14.1.4 Packing Group:</b>	Not applicable
<b>14.1.5 Hazardous Substance:</b>	No
<b>14.1.6 Marine Pollutant:</b>	No

### 14.2 Additional Information:

#### 14.2.1 Other DOT Requirements:

<b>14.2.1.1 Reportable Quantity:</b>	Not applicable
<b>14.2.1.2 Placard(s):</b>	Not applicable
<b>14.2.1.3 Label(s):</b>	Not applicable

**14.2.2 USCG Classification:** Class 43, Misc. water solutions

#### 14.2.3 International Transportation:

<b>14.2.3.1 IMO:</b>	Not regulated
<b>14.2.3.2 IATA:</b>	Not regulated
<b>14.2.3.3 TDG (Canada):</b>	Not regulated
<b>14.2.3.4 ADR (Europe):</b>	Not regulated
<b>14.2.3.5 ADG (Australia):</b>	Not regulated

**14.2.4 Emergency Response Guide:** Not applicable

**14.2.5 ERAP (Canada):** Not applicable

**14.2.6 Special Precautions:** None

## SECTION 15: REGULATORY INFORMATION

### 15.1 US Federal Regulations

**15.1.1 OSHA:** This product is not considered hazardous under the criteria of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200).

**15.1.2 TSCA:** Product is contained in USEPA Toxic Substance Control Act Inventory.

**15.1.3 CERCLA:** Reportable Quantity – No

#### 15.1.4 SARA Title III:

**15.1.4.1 Extremely Hazardous Substance (EHS):** No

<b>15.1.4.2 Section 312 (Tier II) Ratings:</b>	Immediate (acute)	No
	Fire	No
	Sudden release	No
	Reactivity	No
	Delayed (chronic)	No

**15.1.4.3 Section 313 (FORM R):** Not applicable

**15.1.5 RCRA:** Not applicable

**15.1.6 CAA:** Hazardous Air Pollutants (HAP) Not applicable



## 15.2 International Regulations:

### 15.2.1 Canada:

15.2.1.1 WHIMIS: Not hazardous

15.2.2.2 DSL/NDSL: Listed in DSL

## 15.3 State Regulations:

15.3.1 CA Proposition 65: Not applicable

## SECTION 16: OTHER INFORMATION

**Revisions:** This SDS was reformatted to comply with the new Hazard Communication Standard dated March 26, 2012, by the Regulatory Affairs Department of Tessenderlo Kerley, Inc. 7/15/2013

Revised multiple sections to correct typos and formatting. 3/10/2015.

Revised sections 5, 6, 8, 9, 10, 11-15. 6/10/2016.

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## Contact Information

Tessenderlo Kerley, Inc.  
2255 North 44th Street, Suite 300 | Phoenix, AZ 85008-3279  
Telephone: 602-889-8300 | Toll-Free: 800-525-2803  
email: [cats@cropvitality.com](mailto:cats@cropvitality.com) | [cropvitality.com](http://cropvitality.com)

