



## Safety Data Sheet

### Captor®

SDS Number: 2908      Revision: July 1, 2014

#### Section 1: IDENTIFICATION

**1.1 Product Name:** Captor®

**1.2 Other Identification:**

Chemical Family:	Inorganic salt solution
Formula:	CaS <sub>2</sub> O <sub>3</sub>
Reach Pre-Registration #:	05-2115925358-40-0000

**1.3 Recommended Use of Chemical:** Water treatment

**1.4 Manufacturer:** Tessenderlo Kerley, Inc.  
2255 N. 44<sup>th</sup> Street, Suite 300  
Phoenix, Arizona 85008-3279  
(602) 889-8300

Information:

**1.5 Emergency Contact:** Tessenderlo Kerley, Inc. (800) 877-1737  
CHEMTREC (800) 424-9300, Domestic  
(703) 527-3887, International

#### Section 2: HAZARD(S) IDENTIFICATION

**2.1 Hazard Classification:**

Health	None
Physical	None

**2.2 Signal Word:** Not Applicable

**2.2.1 Hazard Statement(s):** Not Applicable

**2.2.2 Symbol(s):** Not Applicable

**2.2.3 Precautionary Statement(s):** Avoid contact with eyes.  
Use/store in cool, well ventilated areas.  
Avoid prolonged/repeated breathing of vapors.  
Avoid prolonged/repeated contact with the skin.  
Keep away from any sources of heat or flames.  
Store totes or small containers out of direct sunlight.  
Wear protective apron, gloves and eye and face protection.

Do not allow release to aquatic waterways.

**2.3 Unclassified Hazard(s):** None

**2.4 Unknown Toxicity Ingredient:** None

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 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	70 - 80

**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 insure 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. 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.

<b>Section 5: FIRE FIGHTING MEASURES</b>
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**5.1 Flammable Properties:** (See Section 9, for additional flammable properties)

Heating this product to dryness will cause the release of oxides of sulfur.

**NFPA:**                    **Health - 0**      **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 containers 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.

<b>Section 6: ACCIDENTAL RELEASE MEASURES</b>
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**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:**

Large quantities should be kept out of "waters of the United States" because of potential aquatic toxicity (See Section 12).

**6.3 Methods of Containment:**

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

**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).

**6.4 Methods for Cleanup:**

**Small Release:** For small areas shovel up the absorbed material and place in drums for disposal as a chemical waste.

**Large Release:** Recover as much of the spilled product as possible using portable pump and hoses. Treat remaining material as a small release (above).

<b>Section 7: HANDLING and STORAGE</b>
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**7.1 Handling:** Avoid contact with eyes. Use only in a well ventilated area. Wash thoroughly after handling product. 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).

<b>Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
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**8.1 Exposure Guidelines:**

Chemical	OSHA PELs		ACGIH TLVs	
	TWA	STEL	TWA	STEL
Not Applicable				

**8.2 Engineering Controls:** None

**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 created, 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 at all
<b>9.3 Odor Threshold:</b>	Not determined
<b>9.4 pH:</b>	6.5 – 8.0
<b>9.5 Melting Point/Freezing Point:</b>	Salt out temperature is 32°F ( <i>Typical</i> )
<b>9.6 Boiling Point:</b>	100°C (212°F) with decomposition
<b>9.7 Flash Point:</b>	Not applicable
<b>9.8 Evaporation Rate:</b>	Not applicable
<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) ( <i>Typical</i> )
<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 temperatures, 60 – 120°F (15 – 49°C).
- 10.3 Possibility of Hazardous Reactions:**  
See Section 10.5, below.
- 10.4 Conditions to Avoid:** Heating above 120°F (49°C)

**10.5 Incompatible Materials:** Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Acids will cause the release of sulfur dioxide, a severe respiratory hazard. The following materials of construction are not compatible with calcium thiosulfate solutions; carbon steel, copper or its alloys (brass, bronze) or galvanized steel.

**10.6 Hazardous Decomposition Products:**

Calcium oxide and oxides of sulfur. Sulfur dioxide is a severe respiratory irritant.

**Section 11: TOXICOLOGICAL INFORMATION**

**11.1 Oral:** Oral Rat (female) LD<sub>50</sub>: > 2,000 mg/Kg (OECD 425)

Interperitoneal Rat LD<sub>LO</sub>: 573.mg/Kg

Intravenous Rat LD<sub>LO</sub>: 344 mg/Kg

Intraperitoneal Mouse LD<sub>50</sub>: 115 mg/Kg

**11.2 Dermal:** Data not available

**11.3 Inhalation:** Data not available

**11.4 Eye:** Data not available

**11.5 Chronic/Carcinogenicity:** Not listed in NTP, IARC or by OSHA

**11.6 Teratology:** Data not available

**11.7 Reproduction:** Data not available

**11.8 Mutagenicity:** Data not available

**Section 12: ECOLOGICAL INFORMATION**

**12.1 Ecotoxicity:** Data not available.

**12.2 Persistence & Degradability:** Data not available.

**12.3 Bioaccumulative Potential:** Data not available.

**12.4 Mobility in Soil:** Data not available.

**12.5 Other Adverse Effects:** Data not available.

<b>Section 13: DISPOSAL CONSIDERATIONS</b>
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Consult federal, state and local regulations for disposal regulations.

<b>Section 14: TRANSPORT INFORMATION</b>
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**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 Chris Code: unknown

**14.2.3 International Transportation:**

<b>14.2.3.1 IMO:</b>	Non-hazardous under IMO regulations
<b>14.2.3.2 IATA:</b>	Non-hazardous under IATA regulations
<b>14.2.3.3 TDG (Canada):</b>	Non-hazardous under TDG regulations
<b>14.2.3.4 ADR (Europe):</b>	Non-hazardous under ADR regulations
<b>14.2.3.5 ADG (Australia):</b>	Non-hazardous under ADG regulations

**14.2.4 Emergency Response Guide:** Not applicable

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

**14.2.6 Special Precautions:** None

<b>Section 15: REGULATORY INFORMATION</b>
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**15.1 U.S. Federal Regulations:**

**15.1.1 OSHA:** This product meets 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 – Not applicable

**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)	Yes
	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 Pollutant/HAP):** Not Applicable

**15.2 International Regulations:****15.2.1 Canada:**

**15.2.1.1 WHMIS:** Not hazardous

**15.2.1.2 DSL/NDL:** Listed in DSL

**15.3 State Regulations:**

**15.3.1 CA Proposition 65:** No



**Section 16: OTHER INFORMATION**

**REVISIONS:** The entire SDS was reformatted to comply with the new Hazard Communication Standard dated March 26, 2012, by Regulatory Affairs of Tessenderlo Kerley, Inc.

*The information above is believed to be accurate and represents the best information currently available to Tessenderlo Kerley, Inc. (TKI). No warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. Users should make their own investigations to determine the suitability of the information for their particular purpose and on the condition that they assume the risk of their use thereof. TKI reserves the right to revise this Safety Data Sheet periodically as new information becomes available.*