

MATERIAL SAFETY DATA SHEET

Calcium Thiosulfate, 6% Calcium, 10% Sulfur

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name:	Calcium Thiosulfate, 6% Calcium, 10% Sulfur		
Common Name:	Caclium Thiosulfate, 6% Calcium, 10% Sulfur		
Chemical Family:	Inorganic Salt Solution		
Synonyms:	Thiosulfuric acid (H ₂ S ₂ O ₃), calcium salt, calcium hyposulfite		
Formula:	CaS₂O₃		
1.2 Manufactured For:	Plant Food Company, Inc. 38 Hightstown-Cranbury Station Road Cranbury, NJ 08512	Emergency Telephone Number Telephone Number for Information Date Prepared	609-448-0935 609-448-0935 11/1/2011

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components (Specific Chemical)

Identity: Common Name	(CAS #)	OSHA PEL	ACGIH TLV	Other Limits Recommended
Calcium Thiosulfate	10124-41-1	N/A	N/A	N/A
Water	7732-18-5	N/A	N/A	N/A

SECTION 3: HAZARDS IDENTIFICATION

Light green liquid with no odor. Contact may cause eye irritation. Repeated/prolonged skin contact may cause irritation. Ingestion may irriate gastrointestinal tract. Heating may cause sulfur dioxide gas to evolve.

NEPA: Health:1 Reactivity:0 Flammability:0 Environment:0 (0=Insignificant=1 Slight 2=Moderate 3=High 4=Extreme)

EMERGENCY OVERVIEW

This material is not a 'health hazard' or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration Hazard Communication Standard, 20 CFR 1910.1200

3.1 POTENTIAL HEALTH EFFECTS

EYE: Contact with the eyes by product mist or solution may cause irritation or a burning sensation.

SKIN CONTACT: Prolonged or repeated contact with product mist or solution may cause skin irritation.

SKIN ABSORPTION: Absorption is unlikely to occur.

INGESTION: Ingestion of product solution may cause irritation of the gastrointestinal tract to include nausea, vomiting and diarrhea. Calcium thiosulfate is considered to have a low toxicity to humans.

INHALATION: Inhalation of product mist may cause irritation of the nose, throat and respiratory tract.

CHRONIC EFFECTS/CARCINOGENICITY: Not listed as a carcinogen by NTP, IARC or OSHA.

SECTION 4: FIRST AID MEASURES

4.1 EYES: Flush immediately with plenty of water for at least 15 minutes while holding eyelids apart to ensure complete irrigation of all eye and lid tissue. If irritation occurs, seek medical attention.

4.2 SKIN: Wash with plenty of soap and water. Remove contaminated clothing and shoes under a safety shower. Get medical attention if irritation persists.

4.3 INGESTION: If conscious and alert, administer water or milk to dilute, then induce vomiting. Call Poison Control Center or physician immediately. Do not give

4.4 INHALATION: Remove victim to fresh air. If breathing is labored, administer oxygen. If breathing has ceased, clear airway and start mouth to mouth resuscitation. If heart has stopped beating, external heart massage should be applied. Obtain medical attention.

SECTION 5: FIREFIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

FLASHPOINT: Not flammable **METHOD USED:** Closed Cup/NONCOMBUSTIBLE

5.2 FLAMMABLE LIMITS: LFL: NA UFL: NA

5.3 EXTINGUISHING MEDIA: Foam, carbon dioxide, dry chemical, or water fog.

5.4 FIRE & EXPLOSIVE HAZARDS: Heating to dryness may cause the release of oxides of sulfur. Keep containers/storage vessels in fire area cooled with water spray. Heating may cause the release of oxides of sulfur.

5.5 FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid smoke inhalation. Contain any liquid runoff.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 SMALL RELEASES: Confine and absorb small releases on sand earth or other inert absorbent. Use water spray to dilute to weaken fertilizer solution.

6.2 LARGE RELEASES: Confine area to qualified personnel. Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, drains or surface waterways (potential aquatic toxicity). Recover as much of the solution as possible. Treat remaining material as a 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 breathing of vapors. 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 tote and smaller containers out of direct sunlight at moderate temperatures. For tank storage, fittings, instruments, etc., use 304L, 316 ss, aluminum, fiberglass, poly tanks or lined carbon steel.

7.3 Transfer Equipment: Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1 RESPIRATORY PROTECTION: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/moist respirator (such as 3M#8710).**Ventilation:** Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminate

8.2 SKIN PROTECTION: Neoprene rubber groves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing

8.3 EYE PROTECTION: Chemical goggles and a full face shield. **DO NOT WEAR CONTACT LENSES.**

8.4 EXPOSURE GUIDELINES:

	TWA	STEL
OSHA	N/A	N/A
ACGIH	N/A	N/A

8.5 ENGINEERING CONTROLS: Use adequate exhaust ventilation to prevent inhalation of product vapors.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE	Light green liquid
9.2 ODOR:	Fresh concrete to no odor at all
9.3 VAPOR PRESSURE:	37 mm Hg @ 100°F
9.4 VAPOR DENSITY:	Not Determined
9.5 SOLUBILITY IN WATER:	Complete
9.6 SPECIFIC GRAVITY (H ₂ O = 1):	1.20 - 1.32
9.7 MELTING POINT:	NA
9.8 pH:	6.5 - 8.0
9.9 VOLATILE:	Not applicable
9.10 COLOR:	Light green liquid
9.11 WEIGHT PER GALLON:	10.43 lbs (4.7 kg)
9.12 STORAGE LIFE AT 70° F:	> 1 Year
9.13 PH-21C:	NA
9.15 VISCOSITY:	NA
9.16 FREEZING POINT:	< 32° F
9.17 EVAPORATION RATE:	NA
9.18 BOILING POINT:	212°F w/decomposition

SECTION 10: STABILITY AND REACTIVITY

10.1 STABILITY: Stable

10.2 HAZARDOUS POLYMERIZATION: Will not occur.

10.3 HAZARDOUS DECOMPOSITION PRODUCTS: Heating this product will evolve oxides of sulfur. Heating to dryness will cause the production of calcium oxide and oxides of sulfur. Sulfur dioxide is a severe respiratory hazard.

10.4 INCOMPATIBILITY: 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 (SEE Section 7.2, Storage). The following materials of construction are not compatible with Calcium Thiosulfate: carbon steel, copper or its alloys (brass, bronze) or galvanized steel.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 ORAL: May cause stomach cramps and/or nausea.

11.2 DERMAL: Data not available.

11.3 INHALATION: Data not available.

11.4 CHORNIC/CARCINOGENICTY: No evidence available.

11.5 TERATOLOGY: Data not available

11.6 REPRODUCTION: Data not available

11.7 MUTAGENICITY: Data not available

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SECTION 12: ECOLOGICAL INFORMATION

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents in accordance with state and local waste disposal regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal.

SECTION 14: TRANSPORTATION INFORMATION

D.O.T.	Not D.O.T. Regulated
Other Shipping Description:	Calcium thiosulfate solution

SECTION 15: REGULATORY INFORMATION

15.1 OSHA: This product is listed as a hazardous material under criteria of the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200.

15.2 SARA TITLE III, Section 313 Toxic Chemicals: None

SECTION 16: OTHER INFORMATION

Not harmed by freezing, but thaw frozen fertilizer slowly and stir before using. Store in a cool place. Rotate stock in storage to use oldest first. Refer to product specifications.

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