

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300

Medical Emergencies: 1-800-301-7976

U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: NORTRACE CaTs®
CHEMICAL NAME: Calcium thiosulfate, Thiosulfuric acid, calcium salt, calcium hyposulfite blend
CHEMICAL FAMILY: Inorganic Salt Solution
EPA REG. NO.: not applicable
MSDS Number: .208563-08-LPI **MSDS Revisions:** All sections reviewed **Date of Issue:** 07/30/08

Supersedes: 07/09/04

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN - CAUTION – Contact with eyes by product mist or solution may cause irritation or a burning sensation. Prolonged or repeated skin contact with product mist or solution may cause skin irritation. Skin absorption is unlikely to occur. 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 of product mist may cause irritation of the nose, throat, and respiratory tract. Excessive heating may cause sulfur dioxide gas to evolve.

This product is a water-white to pale yellow liquid with slight fresh concrete odor. Primary routes of entry are Inhalation, eye contact and skin contact.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Calcium thiosulfate	20.00-30.00	10124-41-1	Not established
Water	69.00-79.00	7732-18-5	Not established

4. FIRST AID MEASURES

If in Eyes: Flush with clean running water for at least 15 minutes. If irritation persists, get medical attention.
If on Skin: Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, or if rash develops, get medical attention.
If swallowed: If conscious, drink 1 or 2 glasses of water. Get medical attention. Never induce vomiting or give anything by mouth to an unconscious person.
If inhaled: Remove to fresh air. If irritation persists, get medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Not applicable
FLAMMABLE LIMITS (LFL & UFL): Not applicable
EXTINGUISHING MEDIA: Considered non-combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: Heating may cause the release of oxides of sulfur.
SPECIAL FIRE FIGHTING PROCEDURES: Keep containers/storage vessels in fire area cooled with water spray. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Heating to dryness may cause the release of oxides of sulfur.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Small releases: Confine and absorb small release on sand, earth, or other inert absorbent. Use water spray to dilute to weak fertilizer solution and transfer to suitable containers for possible land application according to label use or for disposal. Large releases: Confine area to qualified personnel. Shut off release if safe to do so. Dike the spill area to prevent runoff into sewers, drains or surface waterways (potential aquatic toxicity). Recover as much material as possible. Treat remaining material as a small release. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

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.
STORAGE: Store in well-ventilated areas. Do not store combustibles in the area of storage vessels. Keep away from sources of heat or flame. Store totes and smaller containers out of direct sunlight at moderate temperatures. For tank storage, fittings, instruments, etc., use 304L, 316ss, aluminum, fiberglass, poly tanks, or lined carbon steel.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use adequate exhaust ventilation to prevent inhalation of product vapors.
RESPIRATORY PROTECTION: None normally required. If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn.
EYE PROTECTION: Chemical goggles and a full face shield. DO NOT WEAR CONTACT LENSES.
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.

OSHA PEL 8 hr TWA **ACGIH TLV-TWA**
 Not established not established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Water-white to pale yellow liquid with slight fresh concrete odor
SPECIFIC GRAVITY (Water = 1): 1.20-1.32 g/ml **BULK DENSITY:** 10.0-11.0 lbs./gal. **SOLUBILITY:** Complete
VAPOR PRESSURE: Not established **BOILING POINT:** Not established **pH:** 6.5-8.5
PERCENT VOLATILE (by volume): Not applicable **EVAPORATION RATE:** Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample.
 Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable **CONDITIONS TO AVOID:** Avoid excessive heat.
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. Carbon steel, copper or its alloys (brass, bronze) or galvanized steel are **not** compatible with CaTs®.
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.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): Not established **Acute Dermal LD₅₀ (rabbit):** Not established
Eye Irritation (rabbit): May cause irritation **Skin Irritation (rabbit):** May cause irritation
Inhalation LC₅₀ (rat): Not established. **Skin Sensitization (guinea pig):** Not established
Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH

12. ECOLOGICAL INFORMATION

No data available.

13. DISPOSAL CONSIDERATIONS

Do not reuse container. Place in trash or offer for recycling. Incinerate contaminated solids in accordance with local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY DOT BY HIGHWAY.
U.S. Surface Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI; LIQUID (NMFC 68140, SUB 6; CLASS 70)
Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:	NFPA		HMIS
	1 Health	0 Least	1 Health
	0 Flammability	1 Slight	0 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
		4 Severe	

SARA Hazard Notification/Reporting
SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
 Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed
SARA, Title III, Section 313: Not listed
RCRA Waste Code: Not listed
CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: All sections reviewed and/or revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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