

SAFETY DATA SHEET

Pro-Sul
Revised: 07-28-2022
Replaces: 04-16-2014

1. IDENTIFICATION

Product Identifier Used Pro-Sul= ATS on the Label:

Other Identifiers: Ammonium thiosulfate; Ammonium hyposulfite; Thiosulfuric acid, diammonium salt; R 12767/R20047/RSO122

Product ID: MIXTURE

Recommended Use: No data available.

Restrictions on Use: No data available.

AgriTec International
8765 Stockard Or Ste 304
Frisco TX 75034

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency#: (414) 277-1311
CHEMTREC Emergency#: (800) 424-9300

2. HAZARD(\$\$) IDENTIFICATION

GHS Classification(s): This product is not classified as defined by OSHA 29 CFR 1910.1200.

GHS Label Elements: None.

Hazards not otherwise classified: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures:

Chemical or Common Name/Synonyms
Ammonium Thiosulfate

CAI Nu_m.b§r
7783-18-8

% by Wt.
~60 %

4. FIRST-AID MEASURES

Description of Necessary Measures:

Eye Contact: If in eyes: Immediately flush eyes thoroughly with plenty of water. Tilt head to avoid contaminating unaffected eye. If irritation occurs, get medical attention.

Skin Contact: If on skin: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Wash with soap and water.

Inhalation: If inhaled: Remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation occurs.

Ingestion: If swallowed: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

Most Important Symptoms/Effects, Acute and Delayed:

Eye Contact: May cause mild to moderate irritation. May cause: burning sensation.

Skin Contact: No hazard expected under normal use. Prolonged or repeated exposure may cause: irritation.

Skin Absorption: Not likely

Inhalation: *May cause mild irritation. Mists may irritate: nose. throat. respiratory tract.*

Ingestion: *May cause mild irritation. Low toxicity. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea.*

Indication of Immediate Medical Attention and Special Treatment Needed: *There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.*

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: *Use extinguishing agents appropriate for surrounding fire.*

Specific Hazards Arising from the Chemical:

Fire and Explosion Hazards: *Material will not ignite or burn. Heating may cause the release of ammonia vapors. Heating to dryness may cause the release of ammonia, ammonium sulfate, sulfur and oxides of sulfur. NH₃ (16-25%) may form flammable mixtures with air. If heated beyond dryness, some hydrogen sulfide gas may be given off. Hydrogen sulfide also can burn.*

Hazardous Combustion Products: *Ammonia. Sulfur oxides. Sulfur. Ammonium sulfate. Hydrogen sulfide.*

Special Protective Equipment and Precautions for Fire-Fighters: *Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers.*

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures: *Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8.*

Methods and Materials for Containment and Clean Up: *Shut off source of leak if safe to do so. Contain spill, place into drums for proper disposal. Soak up residue with inert absorbent material. Place in non-leaking containers for immediate disposal. Dilute small spills or leaks cautiously with plenty of water. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs.*

7. HANDLING AND STORAGE

Precautions for Safe Handling: *Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Do not allow to dry.*

Conditions for Safe Storage, Including any Incompatibilities: *Store in a cool, well ventilated area, out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Keep away from flames and heat. Store away from combustible materials.*

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
<i>No components found.</i>	

ACGIH Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
<i>No components found.</i>	

Appropriate Engineering Controls: *General room ventilation and local exhaust are required. Use local exhaust to control vapors/mists. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist.*

Individual Protection Measures:

Eye/Face Protection: Wear chemical safety goggles and a full face shield while handling this product.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Neoprene. Rubber.

Respiratory Protection: None required under normal use. If mists are present, wear: NIOSH-Approved respirator for mists. If through heating, excessive ammonia gas is given off, use chemical cartridge respirator with cartridge specific for ammonia, or self-contained breathing apparatus, or supplied-air respirator. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI 288.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Protective clothing.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.

Color: Colorless to amber.

Odor: Slight ammonia odor.

Odor Threshold: N.D.

pH: ~8

Freezing Point (deg. F): 30

Melting Point (deg. F): N.D.

Initial Boiling Point or Boiling Range: N.D.

Flash Point: N.A.

Flash Point Method: N.A.

Evaporation Rate (nBuAc = 1): N.A.

Flammability (solid, gas): N.D.

Lower Explosion Limit: N.A.

Upper Explosion Limit: N.A.

Vapor Pressure (mm Hg): N.A.

Vapor Density (air=1): N.A.

Specific Gravity or Relative Density: 1.3225 @ 25° C

Solubility in Water: Complete

Partition Coefficient (n-octanol/water): N.D.

Auto-ignition Temperature: N.A.

Decomposition Temperature: N.D.

Viscosity: N.D.

% Volatile (wt%): 1 %

VOE (wt%): N.D.

VOE (lbs/gal): N.D.

Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions.

Conditions to Avoid (e.g., static discharge, shock, or vibration): Heat accelerates the normal evolution of ammonia. Heating to dryness and further yields toxic hydrogen sulfide and other gases.

Incompatible Materials: Strong oxidizing agents. Acids. Alkalies. Copper or copper alloys. Zinc. Zinc alloys.
Water-reactive materials.

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Hazardous Decomposition Products: Ammonia. Sulfur oxides. Sulfur. Ammonium sulfate. Hydrogen sulfide. Nitrogen oxides.

II 11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Eyes. Ingestion. Inhalation. Skin.

Symptoms/Effects: Acute, Delayed and Chronic:

Eye Contact: May cause mild to moderate irritation. May cause: burning sensation.

Skin Contact: No hazard expected under normal use. Prolonged or repeated exposure may cause: irritation.

Skin Absorption: Not likely.

Inhalation: May cause mild irritation. Mists may irritate: nose. throat. respiratory tract.

Ingestion: May cause mild irritation. Low toxicity. May cause: gastrointestinal irritation. nausea. vomiting. diarrhea.

Numerical Measures of Toxicity:

<u>Component</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LCS0</u>
Ammonium Thiosulfate	Rat: 1950 mg/kg	Rabbit: > 2000 mg/kg	No Data

Acute Toxicity Estimates (ATE):

Oral: 3474 mg/kg

Cancer Information:

This product does not contain 0.1 % or more of the known or potential carcinogens listed in NTP, IARC, or OSHA

Medical Conditions Aggravated by Exposure to Product: None known.

Other: None known.

II 12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

II 13. DISPOSAL CONSIDERATIONS

Hazardous Waste Number: N.A.

Disposal Method: Dispose of in accordance with all local, state and federal regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition. Since emptied containers retain product residue, follow label warnings even after container is emptied. Disposal methods identified are for the product as sold. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permitted under applicable rules, regulations and/or laws governing your location.

II 14. TRANSPORTATION INFORMATION


DOT (Department of Transportation):

Proper Shipping Name: Not regulated by the DOT.

II 15. REGULATORY INFORMATION

TSCA Inventory Status: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Title III Section 311/312 Category Hazards: Please see Section 2 of this SOS.

Regulated Component:	CAS	CERCL	A	SAR	A	SAR	A	WI	
<u>Component</u>	Number	BQ	EHS	313	HAP	HAP	HAP	HAP	fi.5
Ammonium Thiosulfate	7783-18-8	No	No	Yes	No	No	No	No	No

Note: * This substance is reportable under Sara Title 111, Section 313 as ammonia from a water disassociable ammonium salt.

16. OTHER INFORMATION

Hazard Rating System

Health: 1
 Flammability: 0
 Reactivity: 0
 ● = Chronic Health Hazard

NFPA Rating System

Health: 1
 Flammability: 0
 Reactivity: 0
 Special Hazard: None

SOS Abbreviations

N.A. = Not Applicable
 N.D. = Not Determined
 HAP = Hazardous Air Pollutant
 VOE = Volatile Organic Compound
 C = Ceiling Limit
 N.E./Not Estab. = Not Established

SOS Prepared by: TUT

Reason for Revision: Changes made throughout the SOS.

Revised: 07-28-2022

Replaces: 04-16-2014

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which AgriTec International assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.