


**1. Identification**

**Product name** Ammonium Thiosulfate, 12-0-0, 26% Sulfur  
**Product code** 120026  
**Other Identification:** **Chemical Family:** Inorganic salt solution  
**Formula:** (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
**Recommended use** Turf & Horticulture -Inorganic Salt Solution  
**Manufacturer & Distributor information**  
**Corporate Office** **Plant Food Company, Inc.**  
 38 Hightstown-Cranbury Station Road  
 Cranbury, NJ 08512 United States  
 Information: 1-609-448-0935  
**Telephone** [www.plantfoodco.com](http://www.plantfoodco.com)  
**Website** [pfc@plantfoodco.com](mailto:pfc@plantfoodco.com)  
**E-mail**  
**Contact person** **Grant Platz, Ted Platz**  
**Emergency phone number** **1-800-424-9300 CCN725928**  
**Call CHEMTREC Day or Night Within USA and Canada** **or +1 703-527-3887 (collect calls accepted)**  
**Other Countries** 1-609-448-0935

**2. Hazard(s) identification**

**Physical hazards** Not classified.  
**Health hazards** Acute toxicity, oral Category 4  
 Serious eye damage/eye irritation Category 2A  
 Specific target organ toxicity, single exposure Category 3 respiratory tract irritation Category 2  
**Environmental hazards** Hazardous to the aquatic environment, acute hazard  
**OSHA defined hazards Label elements** Not classified.  
**Label elements**   
**Signal word** **Warning**  
**Hazard statement** Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation.  
**Precautionary statement**  
**Prevention** Use only outdoors or in a well-ventilated area. Avoid breathing mist or vapor. Wash thoroughly after handling. Do  
**Response** If swallowed: Call a poison center/doctor if you feel unwell. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. If eye irritation persists: Get medical advice/attention.  
**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information**

**3. Composition/information on ingredients**

<u>Chemical Name</u>	<u>Synonym Common Name</u>	<u>CAS Number</u>	<u>EINECS No.</u>	<u>%</u>
Thiosulfuric acid diammonium salt	Ammonium thiosulfate	7783-187-8	231-982-0	50-60
Diazanium sulfate	Ammonium sulfate	7783-20-2	231-984-1	0-9
Ammonium sulfite	Ammonium sulfite	10196-04-0	233-484-9	0.1 - 54
Water	Water	7732-18-5	231-791-2	Remaining %

Other components below reportable levels

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

**4. First-aid measures**

**Inhalation** Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen. If breathing has  
**Skin contact** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue  
**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Remove contact lenses, if  
**Ingestion** Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. If victim is  
**Most important symptoms/effects, acute and delayed** Irritation of eyes and mucous membranes.  
**Indication of immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically. Keep victim warm. In case of shortness of  
**General information** breath, give oxygen. Keep victim under observation. Symptoms may be delayed.  
 Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.  
 In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**5. Fire-fighting measures**

**Flammable Properties:** NFPA: Health - 0 Flammability - 0 Reactivity - 0



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Suitable extinguishing media	Not flammable, use media suitable for combustibles involved in fire.
Unsuitable extinguishing media	Not applicable.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Heating (flames) of closed or sealed containers may
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move containers from fire area if you can do so without risk. Keep containers/storage vessels in fire area cooled with water spray.
Fire-fighting equipment/instructions	
Specific methods	Move container from fire area if it can be done without risk.
General fire hazards	Heating this product will evolve ammonia
<b>6. Accidental release measures</b>	
Personal precautions, protective equipment and emergency procedures	Keep people away from and upwind of spill/leak. Keep out of low areas. Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk.  Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.
<b>7. Handling and storage</b>	
Precautions for safe handling	Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Observe good industrial hygiene practices. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).
<b>8. Exposure controls/personal protection</b>	
Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear eye/face protection. Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	For prolonged or repeated skin contact use suitable protective gloves.
Other	Wear suitable protective clothing. Wash contaminated clothing prior to reuse.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
<b>9. Physical and chemical properties</b>	
Appearance	Aqueous solution.
Physical state	Liquid.
Form	Liquid.
Color	Colorless to yellow to black
Odor	ammonia smell
Odor threshold	Not available.
pH	7-8
Salt-Out / Crystallization Temp	
Melting point/freezing point	30 °F - 60°F (-1.1°C - 15.6° C) (Typical))
Initial boiling point and boiling range	210°F - 220°F (98.9°C - 104.4°C)
Flash point	Not available.
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not applicable
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg (2.4 kPa) @ 70° F (21.1°C)
Vapor density	Not available.
Relative density	1.32 - 1.35 (11.0 - 11.2 lbs/gal)
Solubility	800 gm/L @ 20°C (water) 100% ammonium thiosulfate
Solubility (water)	100%
Partition coefficient (n-octanol/water)	Not available.



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Auto-ignition temperature Not available.  
Decomposition temperature 302°F (150°C) 100% ammonium thiosulfate  
Viscosity 4.7 Cp (0.0047 Pa s) at 25°C (77°F)  
Other information

pH in aqueous solution 7 - 8 (1% Solution)  
Pounds per gallon 11.0 - 11.2 lbs/gal  
Shelf life > 2 years

### 10. Stability and reactivity

**Reactivity** Avoid interaction with heat (flames), oxidizers, acids or alkalis (see details below in this section).  
**Chemical stability** Material is stable under normal conditions.  
**Possibility of hazardous reactions** Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness  
**Conditions to avoid** Temperatures above 120°F (49°C) and below 60°F (15°C).  
**Incompatible materials**  
**Hazardous decomposition products** Heating this product will evolve ammonia, Heating to dryness will produce ammonia, ammonium sulfate, sulfur and oxides of sulfur.

### 11. Toxicological information

#### Information on likely routes of exposure

**Oral** Oral-Rat LD<sub>50</sub>: 1,950 - 2,890 mg/kg (ammonium thiosulfate).  
Oral-Mouse LD<sub>50</sub>: 2,100 > 3,000 mg/kg (ammonium thiosulfate).  
Oral-Rat LD<sub>50</sub>: 2,000 - 4,250 mg/kg (ammonium thiosulfate).  
**Inhalation** Inhalation-Rat LC<sub>50</sub>: > 2,260 mg/m<sup>3</sup> (4 hrs-ammonium thiosulfate).  
Inhalation-Mouse LC<sub>50</sub>: > 1,800 mg/m<sup>3</sup> (4 hrs-ammonium thiosulfate).  
Inhalation-Rabbit LC<sub>50</sub>: > 2,200 ug/m<sup>3</sup> (1 hr-ammonium thiosulfate).  
Not available. Skin Irritation/corrosion test on Rabbit & Rat: Non-Irritating Rat > 2,000 mg/kg (ammonium sulfate)  
**Skin contact**  
**Eye contact** Eyes irritation/corrosion, Rabbit, OECD 405. Non-irritating (ammonium thiosulfate)  
**Chronic/Carcinogenicity:** Not listed in NTP, IARC or by OSHA.  
**Teratology:** Data not available.  
**Reproduction:** Data not available.  
**Mutagenicity:** Data not available.

### 12. Ecological information

**Ecotoxicity** Static acute 96 hour-LC<sub>50</sub> for bluegills is 1,000 mg/L.  
Static acute 96 hour-LC<sub>50</sub> for rainbow trout is 770 mg/L.  
Static acute 96 hour-LC<sub>50</sub> for sheepshead minnow is > 1,000 mg/L.  
Static acute 96 hour-LC<sub>50</sub> for mysid shrimp is 77 mg/L.  
**Persistence and degradability** No data is available on the degradability of this product.  
**Bioaccumulative potential** This product is not bioaccumulative.  
**Mobility in soil** Not available.  
**Other adverse effects** None

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.  
**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and  
**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

**DOT** Not regulated as dangerous goods.  
**IATA** Not regulated as dangerous goods.  
**IMDG** Not regulated as dangerous goods.

### 15. Regulatory information

**US federal regulations** This product meets the criteria of the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)** Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)** Not listed.

**SARA 304 Emergency release notification** Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)** Not listed.



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**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard categories</b>	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
<b>SARA 302 Extremely hazardous substance</b>	Not listed.
<b>Section 313 (FORM R):</b>	Ammonia (CAS #7664-41-7) - 14.6%
<b>Other federal regulations</b>	
<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	Not regulated.
<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>	Not regulated.
<b>Safe Drinking Water Act (SDWA)</b>	Not regulated.
<b>US. California Proposition 65</b>	WARNING: This product contains a chemical known to the State of California to cause birth defects or other

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	6/1/2015
<b>Revision date</b>	7/15/2013
<b>Version #</b>	2
<b>Disclaimer</b>	While the information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made regarding products described or information set forth, or that the products, or information may be used without infringing the intellectual property rights of others. In no case shall the information provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the information furnished by our company hereunder are given gratis and we assume no obligation or liability for the information given or results obtained, all such being given and accepted at your risk.
<b>Revision Information</b>	Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties