

MATERIAL SAFETY DATA SHEET

10-34-0 AMMONIUM POLYPHOSPHATE SOLUTION

R.W.Griffin Industries, LLC

Hwy 280 W. Cemetery Rd.
P. O. Box 818
Rochelle, Ga. 31079

HAZARD RATING SYSTEM:

NFPA 704	HMIS	KEY
HEALTH 1	1	4=SEVERE
FLAMMABILITY 0	0	3=SERIOUS
REACTIVITY 0	0	2=MODERATE
		1=SLIGHT
		0=MINIMAL

EMERGENCY ASSISTANCE
MGS - 1-800-256-4421
CHEMTREC: (800) 424-9300

A. PRODUCT IDENTIFICATION

Synonyms: T-Green Solution, 10-34-0
Chemical Name: Ammonium Polyphosphate Solution
Chemical Family: Ammonium Salt
Chemical Formula: Mixture
CAS Reg. No.: Not listed

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product has been introduced into U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals in Commerce; hence, it is subject to all applicable provisions and restrictions under TSCA 40 CFR, Section 721 and 723.250.

B. HAZARDOUS COMPONENTS

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV	Units
Total Nitrogen	N.A.	10-11*	35**	25**	ppm
Total Phosphorous	N.A.	34-37*	N.E.	N.E.	N.A.

* the balance is water
** PEL and TLV are for ammonia
N.E.- not established
N.A.- not applicable

C. PERSONAL PROTECTION INFORMATION

Ventilation: Use adequate ventilation to control exposure below recommended exposure levels. Provide special ventilation in sumps and confined areas. Avoid inhalation of vapors.

Respiratory Protection: None normally required. When entering areas containing unknown concentrations, use NIOSH/MSHA approved self-contained breathing apparatus (SCBA). The immediately dangerous to life and health (IDLH) level for ammonia is 500 ppm.

Eye Protection: Splash-proof goggles and face shield or full facepiece respiratory equipment. Persons subject to exposure must not wear contact lenses.

Skin Protection: If irritation is noted, suitable clothing is recommended when liquid contact is possible.

Have a safety shower and eyewash fountain readily available in work area for emergency use when handling liquid.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. HANDLING AND STORAGE PRECAUTIONS

Avoid breathing vapors or mist. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Have emergency equipment (for fires, spills, leaks) readily available. Storage vessels should have pressure relief valves. Store in cool (below 25°C), well-ventilated area away from direct sunlight and ignition sources and incompatible materials such as acids and oxidizing materials. Store in closed containers upright on level floor, secured in position and protected from damage. Avoid using containers, pipes, and fillings made of zinc-clad or copper-bearing alloys. Containers, even those that have been emptied, will contain product residue and vapors. Always obey safety warnings and handle empty containers as if they were full.

Restrict access to storage area. Post appropriate warning signs, including "No Smoking" signs. Keep storage area separate from populated work areas. Inspect storage area regularly.

E. REACTIVITY DATA

Stability:	Normally stable.
Conditions to Avoid:	Heat, direct sunlight, sparks, open flame.
Incompatibility (Materials to Avoid):	Oxygen and Strong Oxidizing agents (such as acids, peroxides, halogens, hypochlorite bleaches, and perchlorates). Contact with metal halides, mercury, silver or other metals or their compounds may cause violent reactions and explosions.
Hazardous Polymerization:	Will Not Occur.
Hazardous Decomposition Products:	Ammonia gas and nitrogen oxides.
Corrosivity:	Unknown. Ammonia is corrosive to aluminum and zinc. Attacks copper.

F. HEALTH HAZARD DATA

1. Recommended Exposure Limits: See Section B

2. Acute Effects of Overexposure:

Eye: Contact with material can cause irritation.

Skin: None of note.

Inhalation: Irritant of mucous membranes of upper respiratory tract. Symptoms include coughing and breathing difficulties.

Ingestion: None of note. Material is an animal feed ingredient.

3. Subchronic and Chronic Effects of Overexposure:

None of note.

4. Other Health Effects:

No specific data, but material is probably not carcinogenic, mutagenic, or teratogenic.

5. Health Hazard Categories:

	Animal	Human		Animal	Human
Known Carcinogen	—	—	Toxic	—	—
Suspect Carcinogen	—	—	Corrosive	—	—
Mutagen	—	—	Irritant	—	—
Teratogen	—	—	Target Organ Toxin	—	<u>X</u>
Allergic Sensitizer	—	—	Specify:	Eye and respiratory tract irritant	
Highly Toxic	—	—			

6. First Aid and Emergency procedures:

Eyes: If contact occurs, promptly flush eyes with warm water for 15-20 minutes, holding the eyelid(s) open. Get medical attention if irritation persists.

Skin: If contact occurs, wash off with soap and warm water.

Inhalation: Remove to fresh air. If discomfort continues, get medical attention.

Ingestion: Not likely to be needed. If exposure does occur and victim is conscious, give two glasses of water and induce vomiting. Get medical attention.

G. PHYSICAL DATA

Appearance:	Clear dark green liquid
Odor:	Odor of ammonia
Melting Point:	-15°F
Boiling Point:	loses water at 212°F
Vapor Pressure:	not available
Vapor Density (Air = 1):	not available
Solubility in Water:	Completely soluble
Specific Gravity of Liquid (H ₂ O = 1):	1.40 to 1.44
Percent Volatile by Volume:	not available
Evaporation Rate (Ethyl Ether = 1):	not available
Viscosity:	not available
pH:	5.9 to 6.1

H. FIRE AND EXPLOSION DATA

Flash Point (Method Used):	Not applicable.
Autoignition Temperature:	Not applicable.
Flammable Limits (% by Volume in Air):	LEL - not applicable UEL - not applicable
Fire Extinguishing Media:	Essentially non-flammable. Material is used commercially as a fire retardant.
Special Fire Fighting Procedures:	Evacuate area of all unnecessary personnel. Fire fighters should wear self-contained breathing apparatus and full protective clothing. Stop flow of liquid if it can be done safely. Move containers from fire area if possible. Use water spray to keep containers cool.
Fire and Explosion Hazards:	Flammable and possibly explosive ammonia gas will be liberated in case of fire. Ammonia is not readily ignited, but explosions of air-ammonia mixtures have occurred in confined spaces. Pressurized storage vessels may explode in fires. Nitrogen oxides formed when material is burned.

I. SPILL, LEAK AND DISPOSAL PROCEDURES

Precautions required if material is released or spilled:

Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C, if conditions warrant. Shut off source, if possible. For small spills and drips, mop or wipe up and dispose of in DOT-approved waste containers. For large spills, contain by diking with soil or other non-combustible absorbent material. Exercise caution around spills because material is slippery.

Environmental Impact: A large spill could cause damage to aquatic ecosystems. Material acts as a fertilizer and thus may cause eutrophication in waterways.

Waste Disposal: Environmentally secure landfill or biological degradation.

J. DOT TRANSPORTATION

Commodity Name:	Liquid Fertilizer
Shipping Description:	Liquid Fertilizer

K. OTHER REGULATORY INFORMATION

Hazardous Substance/RQ - Not Applicable.

L. PROTECTION REQUIRED FOR WORK ON CONTAMINATED EQUIPMENT

Contact immediate supervisor for specific instruction before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

M. HAZARD CLASSIFICATION

This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

- | | | |
|---|--|---|
| <input type="checkbox"/> Combustible Liquid | <input type="checkbox"/> Flammable Aerosol | <input type="checkbox"/> Oxidizer |
| <input type="checkbox"/> Compressed Gas | <input type="checkbox"/> Explosive | <input type="checkbox"/> Pyrophoric |
| <input type="checkbox"/> Flammable Gas | <input type="checkbox"/> Health Hazard (Section F) | <input type="checkbox"/> Unstable |
| <input type="checkbox"/> Flammable Liquid | <input type="checkbox"/> Organic Peroxide | <input type="checkbox"/> Water Reactive |
| <input type="checkbox"/> Flammable Solid | | |

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

N. ADDITIONAL COMMENTS

None.

O. LEGAL DISCLAIMER

While the information contained in this MSDS is believed to be reliable, no guarantee is made as to its accuracy or completeness. The conditions of use, handling, storage, and disposal, and the suitability of the product for particular uses are beyond our control. Consequently, all risks involving the use of the product are assumed by the user. We expressly disclaim all warranties of every kind and nature, express or implied, including the warranties of merchantability and fitness for a particular purpose.

SPECIFICATION SHEET

PRODUCT:

10-34-0

SPECIFIC GRAVITY

1.392 @ 75 F

pH

5.85

COLOR:

GREEN

VISCOSITY:

95 cpt @ 60 F