

MATERIAL SAFETY DATA SHEET

GROTEC, INC.
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Chemtrec Transport Emergency: 1-800-424-9300
 Non-Transportation Emergency: 706-342-1234
 Poison Control Center: 1-800-282-5846

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PRODUCT IDENTIFICATION

Trade Names and Synonyms:	Pennington Smart Feed Water Soluble Flowers & Blooms Fertilizer Tablets 20-30-10
Chemical Name and Family:	Fertilizer Grade Chemicals
Formula:	Mixture
CAS #:	Not Applicable (mixture)
DOT Hazard Class/ID#/Label:	Not Applicable
Reportable Quantity (RQ):	Not Applicable
Surface Freight Classification:	Fertilizer Compound, N.O.I.
NPCA-HMIS Hazard Index:	Health: 1 Flammability: 0 Reactivity: 1 Personal Protection: N.A.

HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Ingredient (CAS#, chemical & Common Names)	Percent by Weight	Exposure Limits		
		OSHA	ACGIH	Other
Potassium Nitrate, Saltpeter (PN) CAS# 7757-79-1 (Containing up to 5% Sodium Nitrate CAS# 7631-99-4)	24-45	-----	None Established	-----
Monoammonium Phosphate (MAP) CAS# 7722-76-1	30-50	-----	None Established	-----
Urea CAS# 57-13-6	25	-----	None Established	-----

PHYSICAL / CHEMICAL CHARACTERISTICS

<u>Boiling Point</u>	N.A.	<u>Bulk Density</u>	45.1-47.2 lbs./cu.ft.
<u>Vapor Pressure (mm Hg.)</u>	N.A.	<u>% Volatiles</u>	N.A.
<u>Vapor Density (AIR – 1)</u>	N.A.	<u>Evaporation Rate (Butyl Acetate-1)</u>	N.A.
<u>Solubility in Water</u>	3.5 lbs./gal Water @180°F	<u>pH (10% solution)</u>	5.4
<u>Appearance and Odor</u>	Blue Solid and Mild Odor		

FIRE AND EXPLOSION HAZARD DATA

<u>Flash Point (Method Used)</u>	N.A.	<u>Flammable Limits</u>	N.A.	<u>LEL</u>	<u>UEL</u>
				N.A.	N.A.
<u>Extinguishing Media</u>	In case of fire, soak (flood) with water.				
<u>Special Fire Fighting Procedures</u>	Ammonia gas may be released as a result of heating Monoammonium Phosphate. Wear appropriate respiratory protection to prevent inhalation of ammonia gas. This may require the use of self-contained breathing apparatuses (SCBA).				
<u>Unusual Fire and Explosion Hazards</u>	This product contains Ammonium Nitrate, Potassium Nitrate and Sodium Nitrate which are oxidizers in their pure or unmixed forms. Treat dry product as an oxidizer in fire situations.				

REACTIVITY DATA

<u>Stable:</u> Yes	
<u>Conditions to Avoid:</u>	Temperatures over 200°F may lead to decomposition. Monoammonium Phosphate polymerized upon heating, liberating ammonia.
<u>Incompatibility (Materials to Avoid):</u>	Strong oxidizers, alkaline materials, corrosive to cast iron and aluminum.
<u>Hazardous Decomposition or Byproducts:</u>	Ammonia, polyphosphate gas, nitrous oxides, cyanuric acid, cyanic acid, carbon dioxide.
<u>Hazardous Polymerization:</u>	Will not occur.
<u>Conditions to Avoid:</u>	None known.

HEALTH HAZARD DATA

(Include all known acute and chronic effects, signs and symptoms of exposure and medical conditions generally aggravated by exposure.)

Routes of Exposure:

Inhalation: Overexposure is unlikely by this route since product is hygroscopic and moisture pick-up reduces potential airborne dust levels. However, if dust is inhaled in large amounts, it may be irritating to upper respiratory tract.

Skin and Eye: Slight irritation is possible upon prolonged or repeated contact with skin. Blue dye may cause temporary staining of skin. Eye contact with dry material or material in solution may be slightly to moderately irritating.

Ingestion: In acute oral toxicity tests conducted with representative samples of product, the toxicity was determined to be low. Oral (Rat) LD₅₀-5,000 mg/kg. If swallowed in large amounts may cause nausea, vomiting and diarrhea. Symptoms of nitrate poisoning are theoretically possible but were not evident in animals tested. Positive data from laboratory animal studies on the tumorigenic, mutagenic and reproductive effects of Potassium Nitrate, Sodium Nitrate and Urea are listed in the National Registry of Toxic Effects of Chemical Substances (RTECS # TT3700000, #WC5600000, #YR6250000).

Carcinogenicity According to NTP, IARC and OSHA: Not applicable.

Emergency and First Aid Procedures:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If irritation develops, see a physician. Wash skin with soap and water promptly to remove dye and prevent possible irritation. If irritation develops, contact a physician.

If swallowed in large amounts, induce vomiting by giving 2 glasses of water to drink and sticking finger down throat. Call a physician. Never give anything by mouth to an unconscious person.

If inhaled, get fresh air. If symptoms of irritation develop, contact a physician.

PRECAUTIONS FOR SAFE HANDLING AND USE

Warning Statements:

CAUTION

Contains Potassium Nitrate CAS# 7757-79-1 with Sodium Nitrate CAS# 7631-99-4, Monoammonium Phosphate CAS# 7722-76-1 and Urea CAS# 57-13-6.

May be slightly irritating to eyes and skin.

If swallowed in large amounts, may cause nausea, diarrhea and vomiting.

Steps to be Taken in Case Material is Released or Spilled:

Prevent product from entering drinking water supplies or streams.

Observe above precautions. Sweep into dry containers, recycle or remove for disposal.

Waste Disposal Method:

According to US EPA (40 CFR & 261.3) waste of this material is not defined as hazardous. Dispose of all waste in accordance with applicable regulations. Consult state and local regulations to determine if their hazardous waste definitions differ from the US EPA.

CONTROL MEASURES

Respiratory Protection (Specify Type): Not generally required. If dust is likely to be created in handling, wear a NIOSH approved dust respirator (Type TC-21C-xxx).

Ventilation

<u>Local Exhaust:</u>	Not generally required.
<u>Mechanical:</u>	Not generally required.
<u>Special:</u>	N.A.
<u>Other:</u>	N.A.

Protective Gloves: Recommended if prolonged or repeated skin contact is likely.

Eye Protection: Not generally required. If direct eye contact is likely, wear safety glasses.

Other Protective Clothing or Equipment: Normal work clothes.

Work/Hygienic Practices: Note precautions above.

The information contained herein is offered only as a guide to the handling of this specific material. Since such information does not relate to use of the material with any other material or in any process, any person using this information must determine for himself its suitability for any particular application. The buyer and user assumes all risk and liability of use, storage and/or handling of this product not in accordance with the terms of the product label.