

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED): Premium 7-29-5
MANUFACTURER'S NAME: Nutra-Flo Company
ADDRESS: 1919 Grand Ave
Sioux City, IA 51106
EMERGENCY PHONE: Chemtrec 1-800-424-9300 @ 24 hrs a day
BUSINESS PHONE: 712-277-2011
DATE OF PREPARATION: November 4, 2008

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% w/w	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA			NIOSH REL
			TLV TWA	STEL	PEL	STEL	IDLH	
Ammonium Polyphosphate Solution	68333-79-9	65-75	NE	NE	NE	NE	NE	NE
Potassium Orthophosphate, Dibasic (K ₂ HPO ₄)	7758-11-4	5-10	NE	NE	NE	NE	NE	NE
Potassium Orthophosphate, monobasic, (KH ₂ PO ₄)	7778-77-0	1-3						
Dipotassium Pyrophosphate (K ₂ H ₂ P ₂ O ₇)	14691-84-0	0-3	NE	NE	NE	NE	NE	NE
Water	7732-18-5	Balance	NE	NE	NE	NE	NE	NE

NE*=NOT ESTABLISHED

NA*= NOT AVAILABLE

3. HAZARD IDENTIFICATION

NFPA Rating (Scale 0-4) Health=1 Fire=0 Reactivity=0

Route of Entry: Material is an irritant to the eyes, skin, and mucous membranes. Ingestion can cause severe gastric distress.
Eyes: Can result in irritation, tearing, and chemical burns. Overexposure could result in blindness.
Skin: Not expected.
Ingestion: If May result in nausea, vomiting, diarrhea, bluish skin color, digestive disorders, or chemical burns.
Inhalation: Mist inhalation can result in irritation to the lungs, coughing, choking, difficulty in breathing, lung congestion, or chemical burns.
Acute: Slightly hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Can irritate the membranes of the respiratory system if mists or vapors are inhaled. Can cause coughing and shortness of breath.
Chronic: No evidence of chronic effects found.

4. FIRST-AID MEASURES

IF INHALED: Move to fresh air. If the person is having trouble breathing, administer oxygen and get medical assistance.
IN CASE OF EYE CONTACT: Flush eyes with water immediately for 15-30 minutes. Consult a physician if irritation persists or vision is blurred.
IN CASE OF SKIN CONTACT: Remove contaminated clothing and flush skin with water immediately for 15-30 minutes. Wash affected areas with soap when available. If irritation persists, get medical attention.
IN CASE OF INGESTION: Call the poison control center and follow instructions. If victim is vomiting, roll on side to prevent choking.

5. FIRE-FIGHTING MEASURES

FLASH POINT, °C (method): ND

AUTOIGNITION TEMPERATURE, °F: ND

FLAMMABLE LIMITS (in air by volume, %): ND

FIRE EXTINGUISHING MATERIALS:

Slightly flammable to flammable in presence of open flames and sparks, of heat, of oxidizing materials. Non-flammable in presence of shocks.

Water Spray: X **Carbon Dioxide:** X

Appropriate Foam: X **Dry Chemical:** X

SPECIAL FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus. Use water spray to cool containers and control vapors.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Can release ammonia, nitrous oxide fumes, cyanides, oxides of carbon and phosphorous oxide fumes.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: For small or incidental releases, the minimum personal protective equipment should be chemical resistant gloves and goggles. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Gas masks with ammonia canister or SCBA may be required. For large spills, contain by diking with soil or other non-combustible absorbent material. Dilution with water will reduce the possibility of vapor release. Keep material out of sewers, storm drains, and surface waters. Comply with all applicable governmental regulations on spill reporting, handling, and disposal of waste. You may be able to reuse the recovered liquid.

7. HANDLING and STORAGE

Precautions: Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

WORK PRACTICES AND HYGIENE PRACTICES: Avoid getting chemicals **ON YOU** or **IN YOU**. Wash hands after handling chemicals. Do not eat or drink while handling chemicals. Remove any contaminated clothing and wash before reuse.

HANDLING PRACTICES: Wear gloves and other protective clothing when handling this material. Do not get in eyes, on skin, or on clothing.

STORAGE PRACTICES: Store in a cool, dry, well ventilated area away from incompatible materials. This product can be stored in well maintained vessels constructed of mild steel, stainless steel, fiberglass, polypropylene, or polyethylene. Valves should be inspected on a regular basis and replaced as needed to prevent leakage. Flanged valves, instead of screwed valves, are recommended on storage tanks. Aluminum or aluminum alloys should **NOT** be used to store or transport this produce. Bronze, brass, or copper alloys are **NOT** compatible with this product.

VENTING: Vessels should be vented in accordance with the manufacturer's recommendations. The vent should be constructed as to prevent rainwater from entering the vessel.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation

RESPIRATORY PROTECTION: None normally required. However, if mists are present, wear a NIOSH approved canister respirator, supplied-air respirator, or SCBA.

EYE PROTECTION: Tight fitting goggles should be worn unless a full face respirator is used. Never wear contact lens when handling chemicals.

HAND PROTECTION: Wear chemical resistant gloves.

BODY PROTECTION: Wear chemical resistant clothing. If splashing is expected, wear a chemical resistant apron or suit.

OTHER PROTECTIVE MEASURES: An eyewash and safety shower should be available for use.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>SPECIFIC GRAVITY @ 72°F:</u>	1.38-1.40	<u>SALTOUT TEMPERATURE:</u>	ND
<u>SOLUBILITY IN WATER:</u>	100%	<u>BOILING POINT:</u>	ND
<u>VAPOR PRESSURE, mm Hg @ 25°C:</u>	NA	<u>pH:</u>	6.0-7.0

APPEARANCE AND COLOR: Material is a light green liquid

HOW TO DETECT THIS SUBSTANCE (warning properties): This liquid is odorless. There are no warning properties for this material.

10. STABILITY AND REACTIVITY

STABILITY: Material is stable

CONDITIONS TO AVOID: High temperatures

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Oxidizers, hypochlorites, strong bases, and strong acids

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: N/A

SUSPECTED CANCER AGENT: No

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Inhalation of mists could aggravate pre-existing respiratory ailments and trigger allergies. Skin contact could aggravate pre-existing dermatitis.

Dermal Exposure: Skin irritant.

Ingestion Exposure: Nausea and vomiting. Large dose ingestion can cause heart and kidney problems.

Inhalation Exposure: Irritation of nose and throat. Coughing and shortness of breath.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: Material will biodegrade.

EFFECT OF MATERIAL ON PLANTS OR ANIMALS:

Ammonium Orthophosphate LC50 (Rainbow trout) 96 hours 26500 ug/L

Potassium Orthophosphate, Dibasic (Algal Toxicity): 310000 ug/L 20 hours Blue-green algae

Potassium Orthophosphate, Monobasic (Invertebrate Toxicity): 2400 ug/L 28 hours LC50 Polychaete

EFFECT OF CHEMICAL ON AQUATIC LIFE: Not tested.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations.

EPA WASTE NUMBER: As shipped, material would not be a hazardous waste per 40 CFR section 261, Subpart C and D.

14. TRANSPORTATION INFORMATION

PROPER SHIPPING NAME:

This material is not regulated under 49 CFR Part 172

HAZARD CLASS NUMBER AND DESCRIPTION:

Not Regulated

UN IDENTIFICATION NUMBER:

Not Regulated

DOT LABEL(S) REQUIRED:

None

EMERGENCY RESPONSE GUIDE NUMBER:

171

RQ:

None

15. REGULATORY INFORMATION

SARA REPORTING REQUIREMENTS: None of the materials listed as components or ingredients are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

TSCA INVENTORY STATUS: Ingredients of this material are listed on the TSCA inventory.

MARINE POLLUTANT: This product does not contain any material listed as a Marine Pollutant under 49 CFR 172.101.

CALIFORNIA PROPOSITION 65: No

CERCLA REPORTABLE QUANTITIES (RQ): None

STATE REGULATORY INFORMATION: NA

LABELING (Precautionary Statements): WARNING! EYE AND SKIN IRRITANT

16. OTHER INFORMATION

The information and recommendations herein are taken from data contained in independent, industry recognized references including, NIOSH, OSHA, ANSI, STN, and NFPA. This information is furnished free of charge and is based on data believed to be reliable. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Since actual use is beyond our control, no guarantee, express or implied, and no liability is assumed by Nutra-Flo Company in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.