

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** Nutri-Grow P+K  
**Product Number:** FFN-01113  
**Other Information:** 0-0-26  
**Product Use:**  
**Supplier Information:** Verdesian Life Sciences, U.S., LLC  
1001 Winstead Drive, Suite 480  
Cary, NC 27513  
1-800-868-6446

**Emergency Number:** 1-800-535-5053 INFOTRAC

**2. HAZARDS IDENTIFICATION****CLASSIFICATION****HEALTH HAZARDS:**

Acute toxicity, oral

Category 4

**SIGNAL WORD:**

WARNING

**HAZARD STATEMENTS:**

Harmful if swallowed.

**PRECAUTIONARY STATEMENTS**

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

Dispose of contents/container to an approved waste disposal plant.

Harmful to aquatic life with long lasting effects.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

COMPONENTS	CAS NO.	% BY WEIGHT
Phosphorous Compounds	Proprietary	20-40
Proprietary Blend	Proprietary	20-40
Organic Acid	Proprietary	5-10
Proprietary Compounds	Proprietary	<5

\*\*If Chemical Name/CAS No is "Proprietary" and/or Weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

**4. FIRST AID MEASURES****First Aid Measures:**

**General Advice:** Provide this SDS to medical personnel for treatment.

**If in Eyes:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

**If on Skin or Clothing:** Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

**If Inhaled:** Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist.

**If Swallowed:** Do not induce vomiting. Rinse mouth. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

**Most important symptoms and effects:** May cause eye, skin and respiratory tract irritation.

**Recommendations for immediate medical care and special treatment, if needed:**

**Note to Physician:** Treat symptomatically

### 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** Use extinguishing media suitable for surrounding materials. Dry chemical, carbon dioxide, foam, water spray or fog.

**Specific Hazards Arising from the substance/mixture during a fire:** When exposed to extremely high temperatures, the components of this product will decompose to produce irritating vapors and toxic gases (e.g., phosphorous oxides, phosphine, carbon monoxide, ammonia, and carbon dioxide).

**Protective equipment and precautions for firefighters:** Move containers from fire area if you can do it with risk. Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turnout gear.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

**Environmental Precautions:** Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

**Methods for Containment:** Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

**Methods for Clean-Up:** Avoid creation of dusty conditions. If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

### 7. HANDLING AND STORAGE

#### Precautions for Safe Handling

**Handling:** Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Contaminated work clothing should not be allowed out of the workplace. Avoid breathing vapors or mists. Do not eat or drink while handling this material.

#### Conditions for safe storage, including any incompatibilities

**Storage:** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep from freezing. Do not contaminate water, food or feed by storage or disposal.

**Incompatible Materials:** None known based on information supplied.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Guidelines:

Component	OSHA		ACGIH		Unit
	TWA	STEL	TWA	STEL	
Proprietary Blend	NE	NE	2 (ceiling)	NE	mg/m <sup>3</sup>
Proprietary Blend	15*	NE	NE	NE	mg/m <sup>3</sup>
	5**				

NE = Not Established

\*mist, total particulate

\*\*mist, respirable fraction

#### Engineering Controls:

Maintain eye wash fountain and quick-drench facilities in work area. Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

**Personal Protective Equipment:**

**Eye/Face Protection:** To avoid contact with eyes, wear chemical goggles, shielded safety glasses or face shield. An emergency eyewash or water supply should be readily accessible to the work area.

**Skin and Body Protection:** To avoid contact with skin, wear long pants, long-sleeved shirt, shoes plus socks, and Neoprene gloves. Use body protection appropriate for the task (i.e. coveralls, or rubber apron). An emergency shower or water supply should be readily accessible to the work area.

**Respiratory Protection:** Not normally required. If vapors or dusts exceed acceptable levels, which cause exposures in excess of the guidelines listed in Section 8, respiratory protection may be needed (e.g., air-purifying respirator with a high efficiency particulate filter) and must comply with the U.S. Federal OSHA Standard (29 CFR 1910.134) and applicable U.S. State regulations.

**General Hygiene Considerations:** Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) Do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>Appearance:</b>	Clear, colorless solution
<b>Odor:</b>	Faint to light odor
<b>Odor threshold:</b>	No data available
<b>pH:</b>	6.9
<b>Melting point/freezing point:</b>	<32° F (<0° C)
<b>Initial boiling point and boiling range</b>	>212° F (>100° C)
<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper/lower flammability or explosive limits:</b>	Not applicable
<b>Vapor pressure:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Relative density:</b>	12.8 lb/gal
<b>Solubility(ies):</b>	Completely soluble
<b>Partition coefficient: n-octanol/water:</b>	No data available
<b>Autoignition temperature:</b>	Not applicable
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	No data available

**Note:** Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

<b>10. STABILITY AND REACTIVITY</b>
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**Reactivity:**

**Chemical Stability:** This material is stable under normal handling and storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Exposure to extreme temperatures and incompatible materials.

**Incompatible Materials:** Strong oxidizing agents: bases and acids.

**Hazardous Decomposition Products:** When exposed to extremely high temperatures, the components of this product will decompose to produce irritating vapors and toxic gases (e.g., phosphorous oxides, phosphine, carbon monoxide, ammonia, and carbon dioxide).

## 11. TOXICOLOGICAL INFORMATION

**Potential Health Effects:**

**Likely Routes of Exposure:** Inhalation, ingestion, eye and skin contact.

**Eye Contact:** Direct contact with eyes may cause temporary irritation.

**Skin Contact:** Prolonged contact may cause redness and irritation.

**Ingestion:** Harmful if swallowed. Ingestion may cause irritation to mucous membranes.

**Inhalation:** Avoid breathing vapors or mists.

**Medical Conditions Aggravated by Exposure:** Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

**Toxicological Data:****Component Information:**

Chemical Name	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Inhalation LC <sub>50</sub>
Phosphorous Compounds	= 1500 mg/kg ( Rat )	-	-
Proprietary Blend	= 284 mg/kg ( Rat )	-	-
Proprietary Blend	-	= 1350 mg/kg ( Rabbit )	-
Organic Acid	= 3000 mg/kg ( Rat )	-	-
Proprietary Blend	= 12600 mg/kg ( Rat )	> 10 g/kg ( Rabbit )	> 570 mg/m <sup>3</sup> ( Rat ) 1 h

**Inhalation**

**Acute (Immediate):** Under normal conditions of use, no health effects are expected.

**Chronic (Delayed):** No data available.

**Skin**

**Acute (Immediate):** Under normal conditions of use, no health effects are expected.

**Chronic (Delayed):** No data available.

**Eye**

**Acute (Immediate):** Under normal conditions of use, no health effects are expected.

**Chronic (Delayed):** No data available.

**Ingestion**

**Acute (Immediate):** Under normal conditions of use, no health effects are expected.

**Chronic (Delayed):** No data available.

**Description of Symptoms:** Please see Section 4 of this SDS for symptoms.

**Assessment Carcinogenicity:** None listed with ACGIH, IARC, NTP or OSHA.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:**

Harmful to aquatic life with long lasting effects.

**Component Information:**

Testing has not been conducted on this product. Information provided is for components of this product.

**ORGANIC ACID:**

Food Chain Concentration Potential: Very Low

Aquatic TLm (immersion-shore crab) 48 hrs, salt water 160 ppm

(immersion-goldfish) 4 hr, fresh water 894 ppm killed

Waterfowl toxicity: No data available

TLm (immersion, shore crab) = 160 ppm/ 48 hours/ salt water

TLm (immersion, goldfish) = 894 ppm/ 4 hours/ fresh water/ killed

**ORGANIC COMPOUND:**

LC50 (*Pimephales promelas*, fathead minnow) = 44000 mg/L

LC50 (*Carassius auratus*, goldfish) = 5000 mg/L

EC0 (*Pseudomonas putida*, bacteria) >10,000 mg/L/ 16 hours

EC0 (*Microcystis aeruginosa*, algae) = 2,900 mg/L/ 8 days

EC0 (*Scenedesmus quadricauda*, green algae) >10,000 mg/L/ 7 days

EC0 (*Entosiphon sulcatum*, protozoa) = 3,200 mg/L/ 72 hours

## SAFETY DATA SHEET

Nutri-Grow P+K

EC0 (Uronema parduczi Chatton-Lwoff, protozoa) >10,000 mg/L  
LC50 (goldfish) 5,000 mg/L/ 24 hours

**Persistence and Degradability:** No data available  
**Bioaccumulation:** No data available  
**Mobility in Soil:** No data available  
**Other Adverse Effects:** No data available

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of wastes in accordance with local, state and federal regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

**Container Disposal Method:** Dispose of container in accordance with local, state and federal regulations.

### 14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this SDS.

**DOT:**  
Non Regulated

**IMDG:**  
Non Regulated

**IATA:**  
Non Regulated

### 15. REGULATORY INFORMATION

#### U.S. FEDERAL REGULATIONS

**TSCA Inventory:** Listed

**SARA Hazard Notification/Reporting:**

**Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370.66):**  
Immediate

**Section 313 Toxic Chemical(s):**  
None

**Reportable Quantity (RQ) under U.S. CERCLA:**  
None

**RCRA Waste Code:**

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

**State Information:**

Other state regulations may apply. Check individual state requirements.

**California Proposition 65:** Not Listed.

**16. OTHER INFORMATION****National Fire Protection Association (NFPA) Hazard Rating:****Health Hazards: 1    Flammability: 0    Instability: 0    Special Hazards: NDA****HMIS****Health Hazards: 1    Flammability: 0    Physical Hazards: 0    Personal Protection NDA**

Hazards Scale: 0 = Minimal    1 = Slight    2 = Moderate    3 = Serious    4 = Severe

**Key to abbreviations:**

ACGIH = America Conference of Governmental Industrial Hygiene

IARC = International Agency for Research on Cancer

N/A = Not applicable

NDA = No data available

NE = Not Established

NTP = National Toxicology Program

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits

TWA = Time Weighted Average

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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