



Material Safety Data Sheet  
Ultra-Phos 21

Nutra-Flo Company  
1919 Grand Avenue  
Sioux City, Iowa 51106

MSDS Number: 2003  
Date: April 14, 2006  
Revision: 1  
Replaces: December 13, 1999

SECTION I CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name/Trade Name: Ultra-Phos 21  
Synonyms: None Known

Material Uses: Livestock feed ingredient

Supplier/Manufacturer: Nutra-Flo Company      Emergency Telephone Number: 1-800-424-9300  
Address: 1919 Grand Avenue      General Telephone Number: 1-712-277-2011  
City, State, and Zip Code: Sioux City, IA 51106

SECTION II COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	Percentage by Weight	CAS Number
Calcium Phosphate, Monobasic, Monohydrate	60 – 75%	7758-23-8
Calcium Phosphate, Dibasic, Dihydrate	15 – 30%	7789-77-7
Calcium Phosphate, Dibasic, Anhydrous	15 – 30%	7757-93-9
Calcium Carbonate	0 – 15%	471-34-1
Phosphoric Acid	0 – 3%	7664-38-2
Water	0 – 2%	7732-18-5

Product may contain a mixture of calcium sulfate (2-3%), magnesium phosphate (1-2%), aluminum phosphate (1-3%), and iron phosphate (3-5%).

SECTION III HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Material is a nuisance dust. Eye and skin irritation are possible. Material is slightly toxic by ingestion. Dust inhalation may cause respiratory tract irritation. Nuisance dust may aggravate persons with asthma.

Health Hazards:

LD<sub>50</sub>: (Mixture) Not applicable  
LC: (Mixture) Not applicable

NFPA Hazard Rating:

Health: 1 (moderate)  
Flammability: 0 (none)  
Reactivity: 0 (slight)

Routes of Exposure:

- Swallowing
- Skin Absorption
- Skin Contact
- Eye Contact
- Inhalation

Effects of Single (Acute) Overexposure:

Swallowing: May cause gastric upset.  
Skin Absorption: Not expected.



**Material Safety Data Sheet**  
**Ultra-Phos 21**

**Inhalation:** May irritate the membranes of the respiratory system if inhaled. Symptoms include sneezing and coughing.  
**Skin Contact:** May cause moderate irritation. Symptoms include redness, itching, and discomfort.  
**Eye Contact:** May cause moderate irritation and tearing. Symptoms include redness and discomfort.

**Effects of Repeated (Chronic) Overexposure:** No evidence of chronic effects found.

#### **SECTION IV: FIRST AID MEASURES**

**Inhalation:** Move to fresh air.  
**Ingestion:** Call poison control center and follow instructions. Do not induce vomiting. Seek medical attention.  
**Eye Contact:** Flush with water for a minimum of 15 minutes. Seek medical attention if irritation persists or vision is blurred.  
**Skin:** Remove clothing and wash with soap and water.

#### **SECTION V: FIRE AND EXPLOSION HAZARDS**

**Flammability:** Not considered a fire hazard  
**Flash Point:** Not applicable  
**Auto ignition Temperature:** Not applicable  
**Flammable Limits in Air % by Volume:** Not applicable  
**Extinguishing Means:** Use extinguishing media appropriate for surrounding fire

**Hazardous Combustion Products:** When heated to decomposition, this product will emit toxic fumes. Product may release oxides of calcium, sulfur, and phosphorus along with hydrogen fluoride gases.

#### **SECTION VI: ACCIDENTAL RELEASE MEASURES**

*For small or incidental releases,* the minimum personal protective equipment should be gloves and safety glasses. Sweep up and recover as much product as possible. Ventilate the area. Notify environmental officials before discharge of any significant amount to a sewer.

*In the event of a significant spill,* uncontrolled releases should be responded to by trained personnel using preplanned procedures. Proper personal protective equipment should be used. Personal protective equipment will need to be determined based on the presence of toxic gases (decomposition products). Dust masks or full face respirators with appropriate cartridges or SCBA's may be required. Keep material out of sewers, storm drains, and surface waters. Comply with all local, State, and Federal regulations regarding spill reporting, handling, and waste disposal.

#### **SECTION VII: HANDLING AND STORAGE**

**Maximum Storage Temperature:** Ambient.  
**Handling Practices:** Wear gloves and safety glasses when handling this material. Avoid eye and skin contact. Wash hands thoroughly after handling.

**Storage Practices:** Store in a cool, dry, well-ventilated area away from incompatible materials. This product may be stored in well-maintained vessels used for bulk storage. Vessels should be vented in accordance with the manufacturer's recommendations and should be designed to prevent rainwater from entering the vessel. For high concentrations of dust, be aware of the potential for an explosion

Do not cut, weld, grind or drill on storage vessels containing this product. Vessels must be empty, clean, and tested for explosivity prior to maintenance activities.



**Material Safety Data Sheet**  
**Ultra-Phos 21**

**SECTION VIII: EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT**

**Ventilation Control:** If using product in an enclosed area, make sure the area is well-ventilated.  
**Respiratory Protection:** Not required if using the product outside in fresh air with adequate product dispersion. If dusts are present, wear a NIOSH approved respirator.  
**Protective Gloves:** Wear chemical resistant gloves.  
**Eye Protection:** Tight fitting goggles should be worn unless using a full-face respirator.

**SECTION IX PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Solid	<b>pH:</b>	3.0 – 3.5 (10% Solution in water)
<b>Odor:</b>	Odorless	<b>Appearance:</b>	Grey granules
<b>Bulk Density:</b>	55 – 62 lbs/ft <sup>3</sup>	<b>Specific Gravity:</b>	0.88 – 1.00
<b>Solubility in water:</b>	Soluble at 25°C	<b>Melting Point:</b>	≥100°C
<b>Vapor Density:</b>	Not applicable	<b>Boiling Point:</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable	<b>Particle Size:</b>	-16 to 60 mesh (90 – 95%)

**SECTION X: REACTIVITY DATA**

**Chemical Stability:** Stable  
**Conditions of Reactivity:** High temperatures  
**Conditions of Chemical Instability:** Not applicable  
**Hazardous Polymerization:** Will not occur.

**Hazardous Decomposition Products:** Can release calcium oxides, sulfur, phosphorous, and hydrogen fluoride gases

**Incompatibility with Other Substances:** Oxidizers, acids, fluorine, and magnesium in the presence of hydrogen.

**SECTION XI: TOXICOLOGICAL DATA**

**Toxicity Data:**

Calcium Phosphate:	LD <sub>50</sub> :	17,500mg/kg (oral, rat)
Phosphoric Acid:	LD <sub>50</sub> :	1530 mg/kg (oral, rat)
Calcium Sulfate:	TCL <sub>0</sub> :	194 g/m <sup>3</sup> (inh, hum)

**Suspected Carcinogen:** No

**SECTION XII: ECOLOGICAL INFORMATION**

**Stability:** Stable under ordinary conditions.

**Ecotoxicity:** Used as a mineral supplement for animals as a source of calcium and phosphorous. Calcium phosphate is used as a fertilizer.

**Aquatic/Marine Toxicity:** Will promote eutrophication of streams and rivers.

**SECTION XIII: DISPOSAL CONSIDERATIONS**

**Waste Disposal:** Waste disposal must be in accordance with local, State, and Federal regulations. Recycle to process if possible. Recover and place material in a suitable container for reuse or disposal.

**EPA Waste Number:** Material is not considered hazardous waste per 40 CFR Section 261, Subparts C and D.

**SECTION XIV: TRANSPORT INFORMATION**

<b>Proper Shipping Name:</b>	Not regulated
<b>Hazardous Class Number &amp; Description:</b>	Not regulated
<b>UN Identification Number:</b>	Not regulated



<b>Material Safety Data Sheet</b> <b>Ultra-Phos 21</b>
---

**Packing Group:** None  
**RQ:** 25,000 pounds

**SECTION XV: REGULATORY INFORMATION**

**SARA Reporting Requirements:** Not applicable  
**TSCA Inventory Status:** All ingredients of this material are listed in the TSCA inventory.  
**Marine Pollutant:** Does not contain any material listed as a Marine Pollutant under 49 CFR 172.101  
**California Proposition 65:** Not applicable  
**CERCLA RQ:** 5,000 pounds (Phosphoric Acid)  
**State Regulatory Information:** Not applicable

**SECTION XVI: OTHER INFORMATION**

The information and recommendations herein are taken from data contained in independent, industry recognized references. 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 and should be used 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 on any patents.