



**Material Safety Data Sheet
GoldStart 3-18-18**

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

**MSDS Number: 1025
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Revision: 1
Replaces: July 18, 2004**

SECTION I CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name/Trade Name: GoldStart 3-18-18
Synonyms: 3-18-18

**Material Uses: Agricultural industry: Fertilizers
Manufacture of specialty fertilizers**

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
Potassium Orthophosphate, Dibasic	20-30	7758-11-4
Urea	3-7	57-13-6
Ammonium Orthophosphate, Dibasic	2-8	7783-28-0
Dipotassium Pyrophosphate	1-5	14691-84-0
Tetrapotassium Pyrophosphate	0-10	7320-34-5
Diammonium Pyrophosphate	0-5	13597-86-9
Water	35-74	7732-18-5

SECTION III HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Material is an irritant to the eyes, skin, and mucous membranes. Ingestion may cause severe gastric distress.

NFPA Hazard Rating: *Least:0 Slight:1 Moderate:2 High:3 Extreme:4*

Health (Blue) 2 Reactivity (Yellow) 1
Flammability (Red) 0 Other (White) 0

Routes of Exposure:

- Swallowing Skin Contact
- Eye Contact Inhalation

Effects of Single (Acute) Overexposure:

Ingestion: May cause nausea, vomiting, diarrhea, bluish skin color, digestive disorders, or chemical burns.



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Skin Absorption: No evidence of adverse effects from available information. Absorption not expected.
Inhalation: May cause respiratory tract irritation and coughing. Avoid breathing vapors, mists.
Skin Contact: May cause irritation and chemical burns. Avoid contact with open wounds.
Eye Contact: May cause irritation that, if untreated, can be severe and permanent. Possible eye damage and/or blindness. If splashed in eyes, rinse immediately with water for a minimum of 15 minutes.

Effects of Repeated (Chronic) Overexposure: Long term skin contact may result in chronic dermatitis. Long term eye contact exposure may cause permanent eye damage. Long term inhalation exposure may aggravate pre-existing respiratory ailments and trigger allergies. Large dose ingestion may cause heart and kidney problems.

SECTION IV: FIRST AID MEASURES

Inhalation: Move to fresh air immediately. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support and CALL FOR EMERGENCY SERVICES IMMEDIATELY.
Ingestion: If vomiting occurs spontaneously, keep airway clear. SEEK MEDICAL ATTENTION IMMEDIATELY.
Eye Contact: Flush with water for a minimum of 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds after contact is essential to achieve maximum effectiveness. SEEK MEDICAL ATTENTION IMMEDIATELY if irritation persists or vision is blurred.
Skin: Remove clothing and immediately flush with soap and water. If irritation persists, seek medical attention.

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 media appropriate for surrounding materials.
Hazardous Combustion Products: Not applicable.

SECTION VI: ACCIDENTAL RELEASE MEASURES

For small or incidental releases, the minimum personal protective equipment should be chemical resistant gloves and goggles. Dilution with water will reduce the possibility of vapor release.

In the event of a significant spill, uncontrolled releases should be responded to by trained personnel using preplanned procedures. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

SECTION VII: HANDLING AND STORAGE

Maximum Storage Temperature: Keep below 212°F.
Handling Practices: Wear gloves and other protective equipment when handling this material. Avoid breathing mist. Avoid eye and skin contact. Wash thoroughly after handling. When using, do not eat, drink or smoke.
Storage Practices: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and labeled. Store in a cool, dry, well-ventilated area. Keep separated from incompatible substances.



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This product may be stored in well-maintained vessels constructed of mild steel, stainless steel, fiberglass, polypropylene, or polyethylene. Flanged valves are recommended on storage tanks. Aluminum or aluminum alloys should not be used to store or transport this product. Bronze, brass, or copper alloys are not compatible with this product.

SECTION VIII: EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

Ventilation: Provide local exhaust ventilation where mist may be generated.
Respiratory Protection: Normally, respiratory protection is not required. If mists are present, wear a NIOSH approved canister respirator, supplied-air respirator, or SCBA.
Protective Gloves: Wear chemical resistant gloves.
Eye Protection: Tight fitting goggles should be worn, particularly if spraying product.
Body Protection: Wear chemical resistant clothing. If splashing is expected, wear a chemical resistant apron or suit.

SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Vapor Density:	Not available
Color:	Yellow-gold	Evaporation Rate:	Not available
Odor:	Odorless	pH:	7.0 – 8.5
Odor Threshold:	Not applicable	Appearance:	Clear
Boiling Point:	Not determined	Specific Gravity:	1.39 – 1.41 @ 72°F
Freezing Point:	Not determined	Solubility (Water):	100%
Vapor Pressure:	Not determined	Salt Out Temperature:	-1.0°F

SECTION X: REACTIVITY DATA

Chemical Stability: Stable at normal temperature and pressure
Conditions to Avoid: High temperatures
Incompatibility with Other Substances: Strong acids and strong bases, oxidizers, hypochlorites, prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.
Hazardous Decomposition Products: Thermal decomposition products include ammonia, oxides of carbon, nitrous oxide, cyanides, and oxides of phosphorous.
Hazardous Polymerization: Will not occur.

SECTION XI: TOXICOLOGICAL DATA

LD₅₀: 8471 mg/kg (orl-rat) [Urea]
LD₅₀: 2980 mg/kg (orl-rat) [Potassium Pyrophosphate]

Suspected Carcinogen: No

SECTION XII: ECOLOGICAL INFORMATION

Biodegradation: This material is biodegradable.
Bioconcentration: This material will not bioaccumulate.
Ecotoxicity Data: **LC₅₀:** 26500 ppb 96 hours (Rainbow Trout) [Ammonium Orthophosphate]
LC₅₀: 22500 ppb 96 hours (Mozambique tilapia) [Urea]
Other Ecological Information:
Algal Toxicity: 310000 ppb 20 hours (Blue-green Algae) [Potassium Orthophosphate]
Invertebrate Toxicity: 94000 ppb 24 hours (Zebra Mussel) [Tetrapotassium Pyrophosphate]



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SECTION XIII: DISPOSAL CONSIDERATIONS

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

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

SECTION XIV: TRANSPORT INFORMATION

Proper Shipping Name: This material is not regulated under 49 CFR Part 172.

Hazardous Class Number & Description: None

UN Identification Number: None

Packing Group: None

Emergency Response Guide Number: 171

RQ: None

SECTION XV: REGULATORY INFORMATION

SARA Reporting Requirements: Not applicable

TSCA Inventory Status: Ingredients of this material are listed on 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 Reportable Quantities: Not applicable

State Regulatory Information: Not applicable

Labeling (Precautionary Statements): **WARNING!** Eye and Skin Irritant

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.