

MATERIAL SAFETY DATA SHEET



DATE PREPARED: 03/21/1996
MSDS No: 6067

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: UP-START® Vitamin B-1 Plant Starter with 3-10-3 Fertilizer

PRODUCT DESCRIPTION: Fertilizer

MANUFACTURER

The SOLARIS Group
U.S.A.
of Monsanto Company
P.O. Box 5008
San Ramon, CA 94583-0808

PN: 5492-A

24 HR. EMERGENCY TELEPHONE NUMBERS

Emergency Phone: 800-225-2883

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>
Phosphoric acid	19.27	7664-38-2
Potassium Nitrate	7	7757-79-1
Thiamine Hydrochloride	0.02	67-03-8
INERT INGREDIENTS	65.0	

>`Inert Ingredients" is a term defined by the U.S. Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act (40 CFR 158.153). It refers to any substance, other than an active ingredient, which is intentionally added to a pesticide product. Some inert ingredients may be hazardous chemicals, as defined by the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). The hazards associated with these inert ingredients have been included in this document.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear liquid

IMMEDIATE CONCERNS: - WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING
- KEEP OUT OF REACH OF CHILDREN

POTENTIAL HEALTH EFFECTS

EYES: The eye irritation potential of this substance has not been determined. However, it may produce slight eye irritation, e.g. discomfort, redness, swelling and blurred vision.

SKIN: Substance may cause slight skin irritation. Avoid contact with open cuts or sores.

INGESTION: The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if swallowed. Ingestion may cause irritation of the digestive tract.

INHALATION: The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if inhaled.

4. FIRST AID MEASURES

EYES: Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. No additional first aid should be necessary. However, if irritation persists, see a doctor.

SKIN: No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

INGESTION: If swallowed, immediately telephone a poison control center, emergency treatment center or a physician for advice. DO NOT make person vomit unless directed to do so by medical personnel. If medical advice cannot be obtained, then immediately take person and product container, with label, to an emergency treatment center.

INHALATION: If respiratory discomfort or irritation occurs, move the person to fresh air. See a doctor if discomfort or irritation

continues.

ADDITIONAL INFORMATION: Medical Information: Call day or night, 1-800-225-2883.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: >200°F TAG CC

EXTINGUISHING MEDIA: Material will not burn.

HAZARDOUS COMBUSTION PRODUCTS: This material will not burn.

FIRE FIGHTING PROCEDURES: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire document.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Soak up spilled material with paper towels and discard in trash.

LARGE SPILL: Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with Oil Dry, cat litter, clay, rags or other absorbent. Collect contaminated absorbent, place in disposable container and dispose of in accordance with instructions provided under Section 13 "DISPOSAL". Thoroughly scrub floor or other impervious surface with a strong industrial type detergent solution and rinse with water.

Leaking containers should be separated from non-leakers and either the container or its contents transferred to a drum or other non-leaking container and disposed of in accordance with instructions provided under Section 13 "Disposal". Any recovered spilled liquid should be similarly collected and disposed of.

GENERAL PROCEDURES: Observe all protection and safety precautions when cleaning up spills -- see Section 8. "EXPOSURE CONTROLS/PERSONAL PROTECTION". For help with any spill, leak, fire or exposure involving this material, call day or night (800) 225-2883.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Keep pesticide in original container. Store in a secure, preferably locked, storage area. Protect container from freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: No special ventilation is necessary.

PERSONAL PROTECTION

EYES AND FACE: Avoid getting this material in your eyes. Eye contact can be avoided by wearing chemical goggles.

SKIN: No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing. Wash thoroughly with soap and water after handling.

RESPIRATORY: No special respiratory protection is normally required.

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

<u>Chemical Name</u>	<u>EXPOSURE LIMITS</u>		
	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>ACGIH STEL</u>
Phosphoric acid	1 mg/m ³	1 mg/m ³	3 mg/m ³
Potassium Nitrate	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE: Clear liquid

pH: 3.3 to 4.5

FREEZING POINT: 30°F

MELTING POINT: 0°F

SOLUBILITY IN WATER: Soluble

DENSITY: 9.55 lbs./gal.

VISCOSITY: Same as water.

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

CONDITIONS TO AVOID: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

HAZARDOUS DECOMPOSITION: Ammonia may form upon boiling.

INCOMPATIBLE MATERIALS: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

11. TOXICOLOGICAL INFORMATION

GENERAL COMMENTS: No product toxicology data available. The hazard evaluation was based on data on the components.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data available.

ECOTOXICOLOGICAL INFORMATION: No data available.

13. DISPOSAL CONSIDERATIONS

FOR LARGE SPILLS: Material collected that cannot be chemically reprocessed should be disposed of in a landfill approved for disposal or in accordance with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

PRODUCT DISPOSAL: The Solaris Group is committed to responsible environmental practices and recommends that all of the product be used up, carefully following all label directions and precautions.
If necessary to dispose of partially filled product containers, then discard in the trash.

EMPTY CONTAINER: Do not reuse container.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not Regulated

PRIMARY HAZARD CLASS/DIVISION: None

UN/NA NUMBER: NONE

PACKING GROUP: No

U.S. SURFACE FREIGHT CLASS: Manufactured Fertilizer Compounds, NOI, Liquid

SPECIAL SHIPPING NOTES: The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA				
ACUTE: YES	CHRONIC: NO	FIRE: NO	REACTIVITY: NO	PRESSURE GENERATING: NO

TITLE III NOTES: Immediate (acute) health hazard: Product is slightly irritating to the eyes.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All components are on the US EPA's TSCA Inventory List.

16. OTHER INFORMATION**HMIS CODES****FIRE: 0 HEALTH: 1 REACTIVITY: 0 PROTECTION: -****NFPA CODES****FIRE: 0 HEALTH: 1 REACTIVITY: 0 SPECIAL: -****APPROVAL DATE:** 04/26/1996**REVISION SUMMARY** New MSDS**COMMENTS:** For additional information concerning this product, call the SOLARIS Groups Consumer Helpline at 800-225-2883.

MANUFACTURER DISCLAIMER: This Material Safety Data Sheet (MSDS) contains health, safety and environmental information for you and your employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label. Information contained in this MSDS will help you to prepare for emergency response and to meet community right-to-know, emergency response and reporting requirements under SARA Title III and many other laws. Emergency response agencies and health care providers will also find this additional information useful.

Use of this product is regulated by the U.S. Environmental Protection Agency (EPA) through the approved label copy. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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