

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name:	Flo Thru™ 2403 Soil Penetrant		
Common Name:	Surfactant Mixture		
Chemical Family:	Surfactant Mixture		
Chemical Description:	Surfactant Mixture		
1.2 Manufactured For:	Plant Food Company, Inc. 38 Hightstown-Cranbury Station Road Cranbury, NJ 08512	Emergency Telephone Number	609-448-0935
		Telephone Number for Information	609-448-0935
		Date Prepared	6/1/2005

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components (Specific Chemical)

Identity: Common Name	(CAS #)	OSHA PEL	ACGIH TLV	Other Limits Recommended
Water	7732-18-5	N/A	N/A	N/A
Surfactant Mixture	NJT SR JC2403	N/A	N/A	N/A

SECTION 3: HAZARDS IDENTIFICATION

Clear to slightly murky pale, straw colored liquid with slight ammonia odor. May cause eye and skin irritation. May be harmful if ingested. Not D.O.T. regulated. This liquid is volatile and give off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup that could result in container rupture. Container areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure. Do not pressurize containers to empty as static electricity may accumulate and create a fire hazard.
 NEPA: Health:1 Reactivity:0 Flammability:0 Environment:0 (0=Insignificant=1 Slight 2=Moderate 3=High 4=Extreme)

EMERGENCY OVERVIEW

This material is not a 'health hazard' or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration Hazard Communication Standard, 20 CFR 1910.1200

3.1 POTENTIAL HEALTH EFFECTS

EYE: Contact with the eyes by product mist or solution may cause temporary redness and discomfort, redness and pain, excess blinking and tear production. significant irritation.
SKIN ABSORPTION: Absorption is unlikely to occur.
INGESTION: Ingestion of product solution may cause irritation of the gastrointestinal tract to include nausea, vomiting and diarrhea.
INHALATION: Inhalation of product mist may cause irritation of the nose, throat and respiratory tract. No effects are expected from inhalation of vapors of this product under normal conditions, high concentrations may cause irritation of the respiratory tract with chest pain and coughing.
CHRONIC EFFECTS/CARCINOGENICITY: Not listed as a carcinogen by NTP, IARC or OSHA.

SECTION 4: FIRST AID MEASURES

4.1 EYES: Immediately flush eyes with water and continue washing for at least 15 minutes. DO NOT remove contact lenses, if worn. Obtain medical attention, preferably clothing prior to reuse.
4.3 INGESTION: If person is fully conscious, give two glasses of water. DO NOT INDUCE vomiting. Obtain medical attention. Do not give anything by mouth to an unconscious person.
4.4 INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth and get medical attention. If heart has stopped beating external heart massage should be applied. Obtain medical attention.

NOTE'S) TO PHYSICIAN: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIREFIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES
FLASHPOINT: >200°F (93°C) **METHOD USED:** Closed Cup/NONCOMBUSTIBLE
5.2 FLAMMABLE LIMITS: LFL: NA UFL: NA
5.3 EXTINGUISHING MEDIA: Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on the size or potential size of the fire and the circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.
5.4 FIRE & EXPLOSIVE HAZARDS: Not Combustible
5.5 FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid smoke inhalation. Contain any liquid runoff. Use dry chemical, foam, or carbon dioxide to extinguish the fire. Water may be ineffective, but water should be used to keep fire exposed containers cool. If a leak or spill has ignited, use water spray to disperse the vapors and to protect those attempting to stop a leak. Water spray may be used to flush spills away from exposures. Minimize breathing of gases, vapor, fumes or decomposition products. use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed. NOTE: The inclusion of the phrase "water may be ineffective" is to indicate that although water can be used to cool and protect exposed material, water may not extinguish the fire unless used under favorable conditions by experienced fire fighters trained in fighting all types of flammable liquid fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 SMALL RELEASES: Confine and absorb small releases on sand earth or other inert absorbent. Use water spray to dilute to weaken fertilizer solution.
6.2 LARGE RELEASES: Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, rains or surface waterways. Recover as much of the solution as possible. Treat remaining material as a small release (above).

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING: Avoid contact with eyes. Use only in a well ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of vapors. Avoid prolonged or repeated contact with the skin.
7.2 STORAGE: Store in original container only in a cool, well-ventilated, dry place at temperatures between 40° and 95°F. Do not store near food or feeds. Do not stack pallets more than two (2) high.
7.3 Transfer Equipment: Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.

MATERIAL SAFETY DATA SHEET

Flo Thru™ 2403 Soil Penetrant

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

8.1 RESPIRATORY PROTECTION: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/moist respirator (such as 3M#8710). Ventilation: Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminate
8.2 SKIN PROTECTION: Neoprene rubber groves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.
8.3 EYE PROTECTION: Chemical goggles and a full face shield. DO NOT WEAR CONTACT LENSES. An eye wash fountain should always be accessible and operational for emergency use.
8.4 EXPOSURE GUIDELINES: TWA STEL
OSHA N/A N/A
ACGIH N/A N/A
8.5 ENGINEERING CONTROLS: Use adequate exhaust ventilation to prevent inhalation of product vapors.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE Clear to slightly murky pale, straw colored liquid
9.2 ODOR: slight ammonia odor
9.3 VAPOR PRESSURE: <0.01 mmHg
9.4 VAPOR DENSITY: Not available
9.5 SOLUBILITY IN WATER: Complete
9.6 SPECIFIC GRAVITY (H2O = 1): 0.88591
9.7 MELTING POINT:
9.8 pH: 7.0 - 8.2
9.9 VOLATILE: >80% by weight
9.10 COLOR: Clear to slightly murky pale, straw colored liquid
9.11 WEIGHT PER GALLON: 10.0 lbs/Gal
9.12 STORAGE LIFE AT 70° F: > 1 Year
9.13 PH-21C:
9.15 VISCOSITY:
9.16 FREEZING POINT: Not Determined
9.17 EVAPORATION RATE: Not Determined
9.18 BOILING POINT: Not Determined

SECTION 10: STABILITY AND REACTIVITY

10.1 STABILITY: Stable
10.2 HAZARDOUS POLYMERIZATION: Will not occur.
10.3 HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO2, NH3 Aldehydes (including formaldehyde), particulate matter and other organic compounds.
10.4 INCOMPATIBILITY: Avoid strong bases at high temperatures, strong acids, strong oxidizing agents, and material reactive with hydroxyl compounds

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 ORAL: May cause stomach cramps and/or nausea.
11.2 DERMAL: May cause slight irritation, especially from prolonged exposure. May cause redness.
11.3 INHALATION: None expected but inhalation may cause mild irritation of nasal mucous membranes.
11.4 CHORNIC/CARCINOGENICTY: Data not available
11.5 TERATOLOGY: Data not available
11.6 REPRODUCTION: Data not available
11.7 MUTAGENICITY: Data not available
11.8 EYES: May cause temporary eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Alga/Lemna Growth Inhibition: Not known.
12.2 Toxicity to Fish and Invertebrates: Not known
12.3 Toxicity to Plants: Not known
12.4 Toxicity in Birds: Not known

SECTION 13: DISPOSAL CONSIDERATIONS

RCRA: When this product becoves a waste, it is classified as a non-hazardous waste under criteria of the Resource Conservation and Recovery Act (40 CFR 261). Refer to the latest State or Federal EPA regulations concerning proper disposal. Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents in accordance with state and local waste disposal regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal.

SECTION 14: TRANSPORTATION INFORMATION

D.O.T. Not D.O.T. Regulated
Other Shipping Description: Fertilizing Compounds (Manufactured), Liquid. NMFC Item 6810 Sub 6, LTL Class 70

SECTION 15: REGULATORY INFORMATION

15.1 CERCLA: If this product is accidentally spilled, it is not subject to any special reporting under the requirements of the comprehensive Response, Compensation, and Liability Act (CERCLA). It is recommended you contact local authorities to determine if there may be other local reporting requirements.
15.2 SARA TITLE III, Section 313 Toxic Chemicals: None

SECTION 16: OTHER INFORMATION

Not harmed by freezing, but thaw frozen fertilizer slowly and stir before using. Store in a cool place. Rotate stock in storage to use oldest first. Refer to product specifications.

This information was developed from information on the constituent materials. No warranty is expressed or implied regarding the completeness or continuing accuracy of the information contained herein, and Plant Food Company, Inc. disclaims all liability for reliance thereon. The user should satisfy himself that he has all current data relevant to his particular use.