

# MATERIAL SAFETY DATA SHEET

## Plant Pack Enhancer: NPK

### Section I: MANUFACTURER'S NAME, ADDRESS, AND CONTACT INFORMATION

Seachem Laboratories, Inc.  
1000 Seachem Drive  
Madison, GA 30650

Emergency Telephone Number: 706-343-6060  
Telephone Number for Information: 706-343-6060  
Date Prepared: 10 July 2006

Plant Pack Enhancer: NPK contains Flourish Nitrogen, Flourish Phosphorus, and Flourish Potassium. The MSDS for these three products are attached.

# MATERIAL SAFETY DATA SHEET

## Flourish Nitrogen

### Section I: MANUFACTURER'S NAME, ADDRESS, AND CONTACT INFORMATION

Seachem Laboratories, Inc.  
1000 Seachem Drive  
Madison, GA 30650

Emergency Telephone Number: 706-343-6060  
Telephone Number for Information: 706-343-6060  
Date Prepared: 10 July 2006

### SECTION II: CHEMICAL INGREDIENTS/IDENTITY INFORMATION

Components (Chemical Identity; Common Names (s))	OSHA PEL	ACGIH TLV	Other Limits
Aqueous solution of potassium nitrate and urea (iminium salt).	NA	NA	NA

### SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	101 <sup>o</sup> C	Specific Gravity (H <sub>2</sub> O = 1)	1.02
Vapor Pressure (mm Hg)	23.8@25 <sup>o</sup> C	Melting Point	NA
Vapor Density (AIR = 1)	<1 H <sub>2</sub> O	Evaporation Rate (Butyl Acetate = 1)	0.3
Solubility in Water	Soluble	Appearance and Odor	Clear liquid with a blue-green tint and slight odor

### SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	NA
Flammable Limits	NA

LEL	NA
UEL	NA
Extinguishing Media	NA
Special Fire Fighting Procedures	NA
Unusual Fire and Explosion Hazards	NA

## SECTION V: REACTIVITY DATA

Stability	Stable under normal conditions of use
Conditions to Avoid	None
Incompatibility (Materials to Avoid)	None
Hazardous Decomposition or Byproducts	None
Hazardous Polymerization	Will Not Occur
Polymerization Conditions to Avoid	None

## SECTION VI: HEALTH HAZARD DATA

Route(s) of Entry: Ingestion, Skin, Eyes, Inhalation
Health Hazards (Acute): Ingestion-May lead to gastrointestinal disturbances and irritation, potentially toxic if swallowed in large quantities; Skin- May cause irritation; Eyes-May cause eye irritation; Inhalation-May cause pulmonary irritation.
Carcinogenicity: NA
Signs and Symptoms of Exposure: See health hazards above.
Medical Conditions Generally Aggravated by Exposure: ND
Emergency and First Aid Procedures: Ingestion-Give two glasses of water to dilute, contact a physician; Skin-Wash with soap and water; Eyes-flush with water; Inhalation-Remove to fresh air.

## SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled: Dilute with water and wash to drain.
Waste Disposal Method: No special disposal method required, except that it be in accordance with current local authority regulations.
Precautions To Be Taken in Handling and Storing: NA
Other Precautions: All materials should be handled under good housekeeping practices.

## SECTION VIII: CONTROL MEASURES

Respiratory Protection	Not required
Ventilation	Not required
Protective Gloves	Recommended
Eye Protection	Recommended
Other Protective Clothing or Equipment	None
Work/Hygienic Practices	Good housekeeping practices

## ABBREVIATIONS

ACGIH: The American Conference of Governmental Industrial Hygienists, Inc.

IARC: The International Agency for Research on Cancer

LEL: Lower Explosive Limit (or Lower Flammable Limit)

NA: Not Applicable

ND: Not Determined

NTP: The National Toxicology Program

OSHA: The Occupational Health and Safety Administration

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

UEL: Upper Explosive Limit (or Upper Flammable Limit)

## MATERIAL SAFETY DATA SHEET

### Flourish Phosphorus

#### Section I: MANUFACTURER'S NAME, ADDRESS, AND CONTACT INFORMATION

Seachem Laboratories, Inc.  
1000 Seachem Drive  
Madison, GA 30650

Emergency Telephone Number: 706-343-6060  
Telephone Number for Information: 706-343-6060  
Date Prepared: 30 June 2006

#### SECTION II: CHEMICAL INGREDIENTS/IDENTITY INFORMATION

Components (Chemical Identity; Common Names (s))	OSHA PEL	ACGIH TLV	Other Limits
Proprietary aqueous solution of a phosphoric acid salt	NA	NA	NA

#### SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100 <sup>o</sup> C	Specific Gravity (H <sub>2</sub> O = 1)	1.004
Vapor Pressure (mm Hg)	23.8@25 <sup>o</sup> C	Melting Point	NA
Vapor Density (AIR = 1)	<1 H <sub>2</sub> O	Evaporation Rate (Butyl Acetate = 1)	0.3
Solubility in Water	Soluble	Appearance and Odor	Clear odorless liquid

#### SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	NA
Flammable Limits	NA
LEL	NA
UEL	NA

Extinguishing Media	NA
Special Fire Fighting Procedures	NA
Unusual Fire and Explosion Hazards	NA

## SECTION V: REACTIVITY DATA

Stability	Stable under normal conditions of use
Conditions to Avoid	None
Incompatibility (Materials to Avoid)	None
Hazardous Decomposition or Byproducts	None
Hazardous Polymerization	Will Not Occur
Polymerization Conditions to Avoid	None

## SECTION VI: HEALTH HAZARD DATA

Route(s) of Entry: Ingestion, skin
Health Hazards (Acute): Large oral doses may cause irritation to the gastrointestinal tract. Skin irritation is unlikely.
Carcinogenicity: NA
Signs and Symptoms of Exposure: NA
Medical Conditions Generally Aggravated by Exposure: No information found
Emergency and First Aid Procedures: Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice. Flush skin with water.

## SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled: Dilute with water and flush to drain.
Waste Disposal Method: No special disposal method required, except that it be in accordance with current local authority regulations.
Precautions to Be Taken in Handling and Storing: Do not introduce to drinking water or foodstuffs. Wash hands after use, wear gloves if exposure is prolonged.
Other Precautions: All materials should be handled under good housekeeping practices.

## SECTION VIII: CONTROL MEASURES

Respiratory Protection	Not required
Ventilation	Not required
Protective Gloves	Recommended
Eye Protection	Recommended
Other Protective Clothing or Equipment	None
Work/Hygienic Practices	Good housekeeping practices

## ABBREVIATIONS

ACGIH: The American Conference of Governmental Industrial Hygienists, Inc.

IARC: The International Agency for Research on Cancer

LEL: Lower Explosive Limit (or Lower Flammable Limit)

NA: Not Applicable

NTP: The National Toxicology Program

OSHA: The Occupational Health and Safety Administration

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

UEL: Upper Explosive Limit (or Upper Flammable Limit)

## MATERIAL SAFETY DATA SHEET

### Flourish Potassium

#### Section I: MANUFACTURER'S NAME, ADDRESS, AND CONTACT INFORMATION

Seachem Laboratories, Inc.  
1000 Seachem Drive  
Madison, GA 30650

Emergency Telephone Number: 706-343-6060  
Telephone Number for Information: 706-343-6060  
Date Prepared: 10 July 2006

#### SECTION II: CHEMICAL INGREDIENTS/IDENTITY INFORMATION

Components (Chemical Identity; Common Names (s))	OSHA PEL	ACGIH TLV	Other Limits
Aqueous solution of potassium sulfate.	NA	NA	NA

#### SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100.3° C	Specific Gravity (H <sub>2</sub> O = 1)	1.07
Vapor Pressure (mm Hg)	23.8@25° C	Melting Point	NA
Vapor Density (AIR = 1)	<1 H <sub>2</sub> O	Evaporation Rate (Butyl Acetate = 1)	0.3
Solubility in Water	Soluble	Appearance and Odor	Clear, odorless liquid

## SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	NA
Flammable Limits	NA
LEL	NA
UEL	NA
Extinguishing Media	NA
Special Fire Fighting Procedures	NA
Unusual Fire and Explosion Hazards	NA

## SECTION V: REACTIVITY DATA

Stability	Stable under normal conditions of use
Conditions to Avoid	None
Incompatibility (Materials to Avoid)	None
Hazardous Decomposition or Byproducts	None
Hazardous Polymerization	Will Not Occur
Polymerization Conditions to Avoid	None

## SECTION VI: HEALTH HAZARD DATA

Route(s) of Entry: Ingestion, Skin, Eyes, Inhalation
Health Hazards (Acute): Ingestion-May lead to gastrointestinal disturbances and irritation; Skin-Repeated contact may cause drying of the skin; Eyes-May cause eye irritation; Inhalation-May cause sneezing or coughing.
Carcinogenicity: NA
Signs and Symptoms of Exposure: See health hazards above.
Medical Conditions Generally Aggravated by Exposure: ND
Emergency and First Aid Procedures: Ingestion-Give two glasses of water to dilute, contact a physician; Skin-Wash with soap and water; Eyes-flush with water; Inhalation-Remove to fresh air.

## SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled: Dilute with water and wash to drain.
Waste Disposal Method: No special disposal method required, except that it be in accordance with current local authority regulations.
Precautions To Be Taken in Handling and Storing: NA
Other Precautions: All materials should be handled under good housekeeping practices.

## SECTION VIII: CONTROL MEASURES

Respiratory Protection	Not required
Ventilation	Not required
Protective Gloves	Recommended
Eye Protection	Recommended
Other Protective Clothing or Equipment	None
Work/Hygienic Practices	Good housekeeping practices

## **ABBREVIATIONS**

ACGIH: The American Conference of Governmental Industrial Hygienists, Inc.

IARC: The International Agency for Research on Cancer

LEL: Lower Explosive Limit (or Lower Flammable Limit)

NA: Not Applicable

ND: Not Determined

NTP: The National Toxicology Program

OSHA: The Occupational Health and Safety Administration

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

UEL: Upper Explosive Limit (or Upper Flammable Limit)

PAGE

PAGE 1