

# MATERIAL SAFETY DATA SHEET

Starter Blend 5-23-5 6G

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

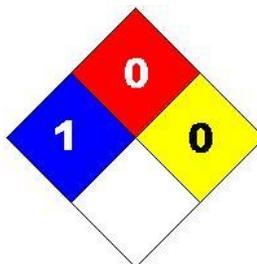
**Product Name:** Starter Blend 5-23-5 6G  
**Product Use:** Fertilizer.  
**Manufacturer/Supplier:** Pro Products LLC  
 7201 Engle Road  
 Fort Wayne, IN  
 46804-5875 US  
**Phone Number:** 260-483-2519  
**Emergency Phone:** CHEMTREC: 1-800-424-9300  
**Date of Preparation:** April 30, 2012

## Section 2: HAZARDS IDENTIFICATION

### HMIS

HEALTH	*	1
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		B

### NFPA



**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

### EMERGENCY OVERVIEW

CAUTION

MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.

**Potential Health Effects:** See Section 11 for more information.

**Likely Routes of Exposure:** Skin contact, eye contact, inhalation, and ingestion.

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Inhalation:** May cause respiratory tract irritation. May cause respiratory sensitization.

**Chronic Effects:** Prolonged or repeated contact may dry skin and cause irritation.

**Signs and Symptoms:** Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Medical Conditions Aggravated By Exposure:** Asthma. Allergies.

**Target Organs:** Skin, eyes, gastrointestinal tract, respiratory system.

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

# MATERIAL SAFETY DATA SHEET

Starter Blend 5-23-5 6G

## Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Wt. %
Ammonium nitrate	6484-52-2	1 - 5
Urea	57-13-6	1 - 5
Ammonium hydroxide	1336-21-6	10 - 30
Potassium hydroxide	1310-58-3	10 - 30
Phosphoric acid	7664-38-2	10 - 30
Amylase, .alpha.-, Aspergillus oryzae	9001-19-8	0.1 - 1
Sodium 2-(2-dodecyloxyethoxy)ethyl sulphate	9004-82-4	0.5 - 1.5
Phosphorous acid	13598-36-2	10 - 30

## Section 4: FIRST AID MEASURES

- Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
- Skin Contact:** In case of contact, immediately flush skin with plenty of water. Call a physician if irritation develops and persists.
- Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
- Ingestion:** If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- General Advice:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).
- Note to Physicians:** Symptoms may not appear immediately.

## Section 5: FIRE FIGHTING MEASURES

- Flammability:** Not flammable by WHMIS/OSHA criteria.
- Means of Extinction:**
- Suitable Extinguishing Media:** Powder, water spray, foam, carbon dioxide.
  - Unsuitable Extinguishing Media:** Not available.
- Products of Combustion:** May include, and are not limited to: oxides of carbon, oxides of nitrogen, ammonia.
- Explosion Data:**
- Sensitivity to Mechanical Impact:** Not available.
  - Sensitivity to Static Discharge:** Not available.
- Protection of Firefighters:** Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## Section 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
- Environmental Precautions:** Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

# MATERIAL SAFETY DATA SHEET

Starter Blend 5-23-5 6G

**Methods for Containment:** Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

**Methods for Clean-Up:** Scoop up material and place in a disposal container. Provide ventilation.

**Other Information:** This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

## Section 7: HANDLING AND STORAGE

**Handling:**

Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Handle and open container with care. When using product, do not eat or drink. After use, wash hands before eating, drinking, or smoking.

**Storage:**

Keep out of the reach of children. Keep container tightly closed and dry. Do not store at temperatures above 49 °C / 120 °F.

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Guidelines**

Ingredient	Exposure Limits	
	OSHA-PEL	ACGIH-TLV
Ammonium nitrate	Not available.	Not available.
Urea	Not available.	Not available.
Ammonium hydroxide	Not available.	Not available.
Potassium hydroxide	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
Phosphoric acid	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Amylase, .alpha.-, Aspergillus oryzae	Not available.	Not available.
Sodium 2-(2-dodecyloxyethoxy)ethyl sulphate	Not available.	Not available.
Phosphorous acid	Not available.	Not available.

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

**Personal Protective Equipment:**

**Eye/Face Protection:** Wear eye/face protection.

**Hand Protection:** Wear suitable gloves.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**General Hygiene Considerations:** Handle according to established industrial hygiene and safety practices.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Dark liquid.
<b>Color:</b>	Dark brown/black.
<b>Odour:</b>	Sweet with slight marine smell.
<b>Odour Threshold:</b>	Not determined.
<b>Physical State:</b>	Liquid.
<b>pH:</b>	5.19

# MATERIAL SAFETY DATA SHEET

Starter Blend 5-23-5 6G

<b>Viscosity:</b>	Not available.
<b>Freezing Point:</b>	~ 0 °C (~ 32 °F)
<b>Boiling Point:</b>	~ 100 °C (~ 212 °F)
<b>Flash Point:</b>	Not available.
<b>Evaporation Rate:</b>	Not available.
<b>Lower Flammability Limit:</b>	Not available.
<b>Upper Flammability Limit:</b>	Not available.
<b>Vapor Pressure:</b>	Not available.
<b>Vapor Density:</b>	Not available.
<b>Specific Gravity:</b>	1.3
<b>Solubility in Water:</b>	Complete.
<b>Coefficient of Water/Oil Distribution:</b>	Not available.
<b>Auto-ignition Temperature:</b>	Not available.
<b>Percent Volatile, wt. %:</b>	Not available.
<b>VOC content, wt. %:</b>	Not available.

## Section 10: STABILITY AND REACTIVITY

**Stability:** Stable under normal storage conditions.

**Conditions of Reactivity:** Heat. Incompatible materials.

**Incompatible Materials:** Strong acids. Strong bases.

**Hazardous Decomposition Products:** May include, and are not limited to: oxides of carbon, oxides of nitrogen, ammonia.

**Possibility of Hazardous Reactions:** No dangerous reaction known under conditions of normal use.

## Section 11: TOXICOLOGY INFORMATION

### EFFECTS OF ACUTE EXPOSURE

#### Component Analysis

<b>Ingredient</b>	<b>LD<sub>50</sub> (oral)</b>	<b>LC<sub>50</sub></b>
Ammonium nitrate	2217 mg/kg, rat	> 88.8 mg/L 4hr, rat
Urea	8471 mg/kg, rat	Not available.
Ammonium hydroxide	350 mg/kg, rat	Not available.
Potassium hydroxide	214 mg/kg, rat	Not available.
Phosphoric acid	1530 mg/kg, rat	> 850 mg/m <sup>3</sup> 1hr, rat
Amylase, .alpha.-, Aspergillus oryzae	Not available.	Not available.
Sodium 2-(2-dodecyloxyethoxy)ethyl sulphate	1600 mg/kg, rat	Not available.
Phosphorous acid	1500 mg/kg, rat	Not available.

**Eye:** May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Skin:** May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**MATERIAL SAFETY DATA SHEET**

Starter Blend 5-23-5 6G

**Inhalation:** May cause respiratory tract irritation. May cause respiratory sensitization.**EFFECTS OF CHRONIC EXPOSURE****Target Organs:** Not available.**Chronic Effects:** Not hazardous by WHMIS/OSHA criteria.**Carcinogenicity:** Not hazardous by WHMIS/OSHA criteria.**Ingredient****Chemical Listed as Carcinogen or Potential Carcinogen by OSHA, IARC or NTP \***

Ammonium nitrate	Not listed.
Urea	Not listed.
Ammonium hydroxide	Not listed.
Potassium hydroxide	Not listed.
Phosphoric acid	Not listed.
Amylase, .alpha.-, Aspergillus oryzae	Not listed.
Sodium 2-(2-dodecyloxyethoxy)ethyl sulphate	Not listed.
Phosphorous acid	Not listed.

\* See Section 15 for more information.

**Mutagenicity:** Not hazardous by WHMIS/OSHA criteria.**Reproductive Effects:** Not hazardous by WHMIS/OSHA criteria.**Developmental Effects:****Teratogenicity:** Not hazardous by WHMIS/OSHA criteria.**Embryotoxicity:** Not hazardous by WHMIS/OSHA criteria.**Respiratory Sensitization:** Hazardous by WHMIS/OSHA criteria.**Skin Sensitization:** Not hazardous by WHMIS/OSHA criteria.**Toxicologically Synergistic Materials:** Not available.**Section 12: ECOLOGICAL INFORMATION****Persistence / Degradability:** Not available.**Bioaccumulation / Accumulation:** Not available.**Mobility in Environment:** Not available.**Section 13: DISPOSAL CONSIDERATIONS****Disposal Instructions:**

This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

**Section 14: TRANSPORTATION INFORMATION****DOT Classification**

Not regulated

**TDG Classification**

Not regulated

# MATERIAL SAFETY DATA SHEET

Starter Blend 5-23-5 6G

## Section 15: REGULATORY INFORMATION

### Federal Regulations

**Canadian:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**US:** MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200).

### SARA Title III

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Ammonium nitrate	Not listed.	Not listed.	Not listed.	Not listed.
Urea	Not listed.	Not listed.	Not listed.	Not listed.
Ammonium hydroxide	Not listed.	Not listed.	1,000	313
Potassium hydroxide	Not listed.	Not listed.	1,000	Not listed.
Phosphoric acid	Not listed.	Not listed.	5,000	Not listed.
Amylase, .alpha.-, Aspergillus oryzae	Not listed.	Not listed.	Not listed.	Not listed.
Sodium 2-(2-dodecyloxyethoxy)ethyl sulphate	Not listed.	Not listed.	Not listed.	Not listed.
Phosphorous acid	Not listed.	Not listed.	Not listed.	Not listed.

### State Regulations

#### California Proposition 65:

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

### Global Inventories

Ingredient	Canada DSL/NDSL	USA TSCA
Ammonium nitrate	DSL	Yes.
Urea	DSL	Yes.
Ammonium hydroxide	DSL	Yes.
Potassium hydroxide	DSL	Yes.
Phosphoric acid	DSL	Yes.
Amylase, .alpha.-, Aspergillus oryzae	No.	Yes.
Sodium 2-(2-dodecyloxyethoxy)ethyl sulphate	DSL	Yes.
Phosphorous acid	DSL	Yes.

### WHMIS Classification(s):

- Class D2A - Respiratory Sensitization
- Class D2B - Skin/Eye Irritant

### WHMIS Hazard Symbols:



### SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

- OSHA (O)** Occupational Safety and Health Administration.
- ACGIH (G)** American Conference of Governmental Industrial Hygienists.
  - A1 - Confirmed human carcinogen.
  - A2 - Suspected human carcinogen.
  - A3 - Animal carcinogen.
  - A4 - Not classifiable as a human carcinogen.

**MATERIAL SAFETY DATA SHEET**

Starter Blend 5-23-5 6G

A5 - Not suspected as a human carcinogen.

**IARC (I)**

International Agency for Research on Cancer.

1 - The agent (mixture) is carcinogenic to humans.

2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.

3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.

4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)**

National Toxicology Program.

1 - Known to be carcinogens.

2 - Reasonably anticipated to be carcinogens.

**Section 16: OTHER INFORMATION****Disclaimer:**

The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data known to us was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

**Expiry Date:** April 30, 2015**Version #:** 1.0**Prepared by:** Pro Products LLC