

# SAFETY DATA SHEET

FILE NO.: BPTAP1445-2019Q1

NAME OF PRODUCT: **ArborPlex™ 14-4-5**

Preparation Date: 12/13/2016

Revision: 02/28/2019

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT CODES:** BPT-AP1445  
**PRODUCT NAME:** ArborPlex 14-4-5  
**SYNONYMS:** plant nutrient blend (14-4-5)

**MANUFACTURER:** BioPro Technologies, LLC  
**ADDRESS:** 4060 SE 45<sup>th</sup> Court, Ocala, FL 34480

**EMERGENCY PHONE:** (888) 545-6307

**CHEMTREC PHONE:**

**OTHER CALLS:** (352) 620-2020

**FAX PHONE:** (352) 620-0312



**PRODUCT USE:** Turf management

**PREPARED BY:** E.F. Wilson III

## SECTION 2: HAZARDS IDENTIFICATION

### GHS CLASSIFICATION:

|  |  |   |
|--|--|---|
| <b>Health:</b><br>Eye Effects: Category 2(b)<br>Respiratory Irritation: Category 3<br>Skin Irritation: Category 3<br>Acute Oral Toxicity: Category 3 | <b>Environmental:</b><br>Acute Aquatic Toxicity: Unknown | <b>Physical:</b><br>No Physical Hazards Present |
|--|--|---|

|  |   |                             |
|--|---|-----------------------------|
| <b>GHS Pictogram:</b><br> | <b>ANSI/Old Pictogram:</b><br> | <b>Signal Word:</b> Warning |
|--|---|-----------------------------|

|  |  |
|--|--|
| <b>Hazard Statements:</b><br>H302 - Harmful if swallowed.<br>H316 - Causes mild skin irritation.<br>H320 - Causes eye irritation<br>H335 - May cause respiratory irritation. | <b>Precautionary Statements:</b><br>P101: If medical advice is needed, have product container or label at hand<br>P102: Keep out of reach of children<br>P103: Read label before use<br>P261: Avoid breathing dust/fume/gas/mist/vapors/spray<br>P262: Do not get in eyes, on skin, or on clothing<br>P271: Use only outdoors or in a well ventilated area<br>P280: Wear protective gloves/protective clothing/eye protection/face protection<br>P281: Use personal protective equipment as required<br>P353: Rinse skin with water/shower<br><br>If swallowed: Call a physician or Poison Control Center. <b>If swallowed, DO NOT induce vomiting.</b> If conscious, give large amounts of water to drink.<br><br>If inhaled: Remove person to fresh air and keep comfortable for breathing.<br><br>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and able to do so. Continue rinsing eyes. Seek medical attention if eye irritation persists. |
|--|--|

# SAFETY DATA SHEET

FILE NO.: BPTAP1445-2019Q1

NAME OF PRODUCT: **ArborPlex™ 14-4-5**

Preparation Date: 12/13/2016

Revision: 02/28/2019

## SECTION 2 NOTES:

**Physical Description (also see Section 9):** Dark brown liquid; slight ammonia odor

**Medical Conditions Aggravated by Long-Term Exposure:** Persons with existing skin lesions should exercise caution when using or handling this product. These individuals should also avoid all contact with possible spray mist.

**Chronic Effects:** Prolonged or repeated skin contact may cause dermatitis. Ingestion may irritate gastrointestinal tract.

---

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

---

### INGREDIENTS\*:

Urea – CAS# 57-13-6 - <40%  
Tetrahydro-1,3,5-triazin-2(1H)-one – CAS# 7098-14-8 - <40%  
Ammonium Nitrate – CAS# 6484-52-2 - >5<10%  
Potassium Hydroxide – CAS# 1310-58-3 - <20%  
Leonardite Shale – CAS# 68525-81-5 - <5%  
Citric Acid – CAS# 77-92-9 - >5<10%  
Phosphoric Acid – CAS# 7664-38-2 - >=5%

<1.00% of the following:

Iron Sulfate – CAS# 17375-41-6  
Zinc Sulfate - CAS# 7446-19-7  
Manganese Sulfate – CAS# 10034-96-5  
Ammonium Hydroxide – CAS# 1336-21-6

\*AS PER 29 CFR §1910.1200, THE SPECIFIC CHEMICAL IDENTITY AND/OR EXACT PERCENTAGE (CONCENTRATION) OF COMPOSITION HAS BEEN WITHHELD AS A TRADE SECRET.

## SECTION 3 NOTES:

---

## SECTION 4: FIRST AID MEASURES

---

**IF INHALED:** Remove to fresh air. Get immediate medical attention.

**IF ON SKIN (OR HAIR):** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.

**IF IN EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Remove contact lenses, if present and easy to do. If eye irritation persists: Get medical advice/attention

**IF SWALLOWED:** Call a physician or Poison Control Center. If swallowed, DO NOT induce vomiting. If conscious, give large amounts of water to drink. Follow with diluted vinegar, fruit juice or white of eggs beaten with water. Get immediate medical attention.

**SECTION 4 NOTES:** Product is corrosive to eyes, skin, and internal organs

---

## SECTION 5: FIRE-FIGHTING MEASURES

---

**FLAMMABLE PROPERTIES:** NON-FLAMMABLE

**FLASH POINT:** SAMPLE BEGINS TO BOIL BUT NO FLASH IS OBSERVED

**AUTOIGNITION TEMPERATURE:** NOT APPLICABLE, MIXTURE WILL NOT AUTOIGNITE

### NFPA HAZARD CLASSIFICATION

HEALTH: 1                      FLAMMABILITY: 0                      REACTIVITY: 0  
OTHER: 0

# SAFETY DATA SHEET

FILE NO.: BPTAP1445-2019Q1

NAME OF PRODUCT: **ArborPlex™ 14-4-5**

Preparation Date: 12/13/2016

Revision: 02/28/2019

**EXTINGUISHING MEDIA:** Water spray, dry chemical, carbon dioxide, or foam.

**SPECIAL FIRE FIGHTING PROCEDURES:** Prevent runoff from entering water systems. Keep non-essential personnel out of fire area. THERE ARE NO SPECIAL FIREFIGHTING PROCEDURES. COOL SEALED CONTAINERS TO REDUCE RISK OF RUPTURE DUE TO EXCESSIVE HEAT.

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS:** SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING MUST BE WORN IN CASE OF FIRE. MOVE CONTAINERS FROM FIRE AREA IF YOU CAN DO SO WITHOUT RISK. KEEP CONTAINERS/STORAGE VESSELS IN FIRE AREA COOLED WITH WATER SPRAY. MOVE CONTAINER FROM FIRE AREA IF POSSIBLE WITHOUT RISK.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** During fire, gases hazardous to health may be formed. Heating (flames) of closed or sealed containers may cause violent rupture of container due to thermal expansion of compressed gases. Vapors are irritating to eyes, skin and respiratory tract.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of carbon and nitrogen.

---

## SECTION 6: ACCIDENTAL RELEASE MEASURES

---

**ACCIDENTAL RELEASE MEASURES:** Keep people away from any upwind of spill/leak. Keep out of low areas. Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**ENVIRONMENTAL PRECAUTIONS:** Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

**CONTAINMENT METHODS AND CLEANUP:** Stop the flow of material, if this is without risk.  
Large Spills: Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite.  
Small Spills: Wear protective equipment. Prevent spill from entering water systems. Absorb spill on inert material such as clay, vermiculite or kitty litter. Place absorbed material into labeled container for proper disposal. Dispose of in accordance with local, State, and Federal laws and regulations; see Section 13.

---

## SECTION 7: HANDLING AND STORAGE

---

**HANDLING AND STORAGE:** Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with skin and eyes. Provide adequate ventilation. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Observe good industrial hygiene practices. Wash hands thoroughly after handling. Store in a cool, dry, locked area out of reach of children and animals.

**OTHER PRECAUTIONS:** THIS PRODUCT IS FOR AGRICULTURAL AND HORTICULTURAL USE ONLY AND IS NOT INTENDED FOR OTHER APPLICATIONS. USE NORMAL SAFE HANDLING PROCEDURES AS WITH ALL CHEMICALS. SEE LABEL FOR APPLICATION INSTRUCTIONS AND DIRECTIONS FOR USE.

**SECTION 7 NOTES:** Store locked up. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

---

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

---

**ENGINEERING CONTROLS:** Use in open, outdoor areas only.

**VENTILATION :** Provide ventilation.

**RESPIRATORY PROTECTION:** In confined areas, NIOSH/MSMA approved respirator.

**EYE PROTECTION:** SPLASH PROOF GOOGLES ARE RECOMMENDED WHILE POURING AND HANDLING TO PREVENT EYE CONTACT FROM SPLASH.

**SKIN PROTECTION:** RUBBER GLOVES ARE RECOMMENDED FOR NORMAL CLEANLINESS.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Wear suitable protective clothing. Wash contaminated clothing prior to reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

# SAFETY DATA SHEET

FILE NO.: BPTAP1445-2019Q1

NAME OF PRODUCT: **ArborPlex™ 14-4-5**

Preparation Date: 12/13/2016

Revision: 02/28/2019

**WORK HYGIENIC PRACTICES:** When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## EXPOSURE GUIDELINES:

*{Numbers represent mg/M<sup>3</sup> unless otherwise indicated}.*

| Ingredient       | OSHA PEL |      | ACGIH TLV |      | NIOSH REL |      | NIOSH IDLH |
|------------------|----------|------|-----------|------|-----------|------|------------|
|                  | TWA      | STEL | TWA       | STEL | TWA       | STEL |            |
| Ammonium Nitrate | 5*       | NA   | NA        | NA   | NA        | NA   | NA         |

\*as respirable dust, if generated; also CA OSHA limit.

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

---

**APPEARANCE:** Dark brown liquid

**ODOR:** Slight ammonia odor

**PHYSICAL STATE:** Liquid

**pH AS SUPPLIED:** 7.6 @ 21.2C

**WEIGHT:** 10.56 lbs. per gal. (1.26 kg/L)

**BOILING POINT:**

F: 212

C: 100

**MELTING POINT/FREEZING POINT:**

F: 32

C: 0

**VAPOR PRESSURE (mmHg):** Unknown

**VAPOR DENSITY (AIR = 1):** Unknown

**DENSITY (g/cm<sup>3</sup>):** 1.3

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** 1.260

**EVAPORATION RATE:** Not determined.

**BASIS (=1):**

**SOLUBILITY IN WATER:** Soluble

**PERCENT VOLATILE:** NO VOLATILITY PRESENT

**VOLATILE ORGANIC COMPOUNDS (VOC):** NONE

**MOLECULAR WEIGHT:** NO DATA PRESENT

**VISCOSITY:**

**SECTION 9 NOTES:**

---

## SECTION 10: STABILITY AND REACTIVITY

---

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID (STABILITY):** Avoid extreme heat. Do not freeze.

**INCOMPATIBILITY (MATERIAL TO AVOID):** None known.

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** Oxides of nitrogen, phosphorus, and sulfur; hydrogen sulfide.

# SAFETY DATA SHEET

FILE NO.: BPTAP1445-2019Q1

NAME OF PRODUCT: **ArborPlex™ 14-4-5**

Preparation Date: 12/13/2016

Revision: 02/28/2019

**HAZARDOUS POLYMERIZATION:** Will not occur.

**CONDITIONS TO AVOID:** Temperatures above 120°F (49°C) and below 32°F (0°C).

---

## SECTION 11: TOXICOLOGICAL INFORMATION

---

**TOXICOLOGICAL INFORMATION:** Not determined; no data available.

---

## SECTION 12: ECOLOGICAL INFORMATION

---

**ECOLOGICAL INFORMATION:** Accidental spills of undiluted product may cause vegetation kills. Keep out of any body of water; may harm aquatic life.

---

## SECTION 13: DISPOSAL CONSIDERATIONS

---

**WASTE DISPOSAL METHOD:** Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**HAZARDOUS WASTE CODE:** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**RCRA HAZARD CLASS:** NOT APPLICABLE

---

## SECTION 14: TRANSPORT INFORMATION

---

**U.S. DEPARTMENT OF TRANSPORTATION**  
**PROPER SHIPPING NAME:** ArborPlex 14-4-5  
**HAZARD CLASS:** Not regulated

**OCEAN/WATER TRANSPORTATION**  
**PROPER SHIPPING NAME:** ArborPlex 14-4-5

**AIR TRANSPORTATION**  
**PROPER SHIPPING NAME:** ArborPlex 14-4-5

**OTHER AGENCIES:**

**SECTION 14 NOTES:**

---

## SECTION 15: REGULATORY INFORMATION

---

**EPA Regulations:** Not regulated by EPA under FIFRA or FQPA.

**OSHA Regulations:** Refer to Sections 2 & 8.

**State Regulations:** The following appear on state RTK Chemical Lists: Potassium hydroxide: CA, FL, NJ & MN; urea: CA & MN; ammonium nitrate: FL & NJ; Check with specific state authorities since regulations vary within states.

**Other Regulations:** Section 304 chemicals: potassium hydroxide (CERCLA RQ=1,000 lbs.)

# SAFETY DATA SHEET

FILE NO.: BPTAP1445-2019Q1

NAME OF PRODUCT: **ArborPlex™ 14-4-5**

Preparation Date: 12/13/2016

Revision: 02/28/2019

**SARA Title III; Sections 311/312:** Sudden Release of Pressure (N), Reactivity (N), Fire (N), Immediate (Acute) Health (Y), Delayed (Chronic) Health (N).

**SECTION 15 NOTES:**

---

## SECTION 16: OTHER INFORMATION

---

**OTHER INFORMATION:**

**PREPARATION INFORMATION:**

DISCLAIMER: THIS INFORMATION IS FURNISHED WITHOUT WARRANTY, EXPRESS OR IMPLIED. THIS INFORMATION IS FURNISHED AS THAT OF BEING TO THE BEST KNOWLEDGE OF BIOPRO TECHNOLOGIES, LLC AND/OR ECOLOGEL SOLUTIONS, LLC. THE DATA ON THIS SHEET RELATES ONLY TO THE SPECIFIC MATERIALS DESIGNATED HEREIN. ECOLOGEL SOLUTIONS, LLC ASSUMES NO LEGAL RESPONSIBILITY FOR THE USE OR RELIANCE UPON THIS DATA.