



# Nutriculture® 23-8-16 High Sulfur Turf Special

## Safety Data Sheet

In accordance with 29CFR §1910.1200 (g); (OSHA HCS 2012) (GHS-US)

Revision Date: 9/4/2015

Version: 2.0

### SECTION 1: IDENTIFICATION OF SUBSTANCE/MIXTURE AND COMPANY

#### Product Identifier

Nutriculture® 23-8-16 High Sulfur Turf Special

#### Other Means of identification

None

#### Recommended Use of Product

Fertilizer

#### Name, Address, and Telephone of Responsible Party

Plant Marvel Laboratories, Inc.  
371 East 16<sup>th</sup> Street  
Chicago Heights, IL 60411  
(708) 757-7500 (office) (708) 757-5224 (fax)

#### Emergency Telephone Number

USA and Canada (Transportation Emergency): 800-535-5053 (InfoTrac, 24 hours)  
USA and Canada (Medical Emergency): 800-752-7869 (InfoTrac, 24 hours)  
International Emergency Number: +1-352-323-3500 (InfoTrac, 24 hours)

### SECTION 2: HAZARDS IDENTIFICATION

#### Classification of Substance/Mixture

**Classification:** Serious Eye Damage; 1  
Acute Toxicity, Oral; 4  
Skin Irritation; 3

#### Label Elements

##### Hazard Pictograms:



**Signal Word:** Danger

**Hazard Statements:** Causes serious eye damage.  
Harmful if swallowed.

**Precautionary Statements:** Wear eye protection/face protection.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor.  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.  
Rinse Mouth.

Dispose of contents and container in accordance with local, regional, national, and international regulations.

#### Hazards not Contributing to Classification:

Product may form slippery surface when wet.



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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Composition of Mixture

Chemical Name	CAS Number	Concentration (w/w)*
Potassium Nitrate	7757-79-1	32% - 39%
Ammonium Sulfate	7783-20-2	18% - 24%
Urea	57-13-6	22% - 28%

**Other Ingredients:** There are no additional ingredients present in concentrations above the relevant cut-off values which in the best knowledge of the supplier would contribute to the hazards of this product.

*\*Exact concentrations of ingredients deemed to be trade secrets may be withheld in accordance with 29CFR §1910.1200 (i)*

### SECTION 4: FIRST AID MEASURES

#### Description of First Aid Measures

- Eye Contact** Immediately flush eyes with plenty of water for at least 15 minutes, keeping eyelids open. Check for and remove any contact lenses. Get medical attention immediately.
- Ingestion** Rise out mouth with water. If material has been swallowed and exposed person is conscious, give small amounts of water to drink. Do not induce vomiting unless advised to do so by medical personnel. Get medical attention if exposed person feels unwell.
- Inhalation** Remove exposed person to fresh air. Get medical attention if exposed person feels unwell.
- Skin Contact** Remove contaminated clothing. Rinse affected area with water for at least 15 minutes. Get medical attention if skin irritation develops or persists.

#### Most Important Symptoms and Effects

- Eye Contact** Causes serious eye damage. Symptoms include pain, watering, and redness of the eyes.
- Ingestion** Harmful if swallowed. May cause burns to mouth, throat, and stomach. May cause stomach pain.
- Inhalation** Inhaled dusts may cause respiratory tract irritation.
- Skin Contact** May cause skin irritation.

**Delayed Symptoms:** None known.

#### Indication of Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, seek medical attention. Physician should treat symptomatically.

### SECTION 5: FIREFIGHTING MEASURES

#### Extinguishing Media

**Suitable Extinguishing Media:** Flooding quantities of water.

**Unsuitable Extinguishing Media:** Dry chemical, carbon dioxide, or foam.

#### Specific Hazards Arising from Material

Thermal decomposition products include oxides of nitrogen, oxides of carbon, and ammonia. Toxic or corrosive gasses may be produced in a fire.

#### Protective Equipment and Precautions for Fire Fighters

**Protective Equipment:** Full turn-out gear with self-contained breathing apparatus (SCBA).

**Special Precautions:** Remain upwind of the fire. Avoid breathing dusts or fumes from burning material. Do not attempt to smother the fire with steam or sand. Water spray onto molten material may cause spattering.



**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment, and Emergency Procedures**

**General Precautions:** Handle in accordance with good industrial hygiene practices. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Spilled product creates a slippery surface when wet.

**For Non-Emergency Personnel**

Protective Equipment: Chemical resistant gloves, eye protection, and respiratory protection (if dusty).  
Emergency Procedures: Evacuate unnecessary personnel. Avoid walking through spilled material.  
Ventilate area as necessary

**For Emergency Personnel**

Protective Equipment: Chemical resistant gloves, eye protection, and respiratory protection (if dusty).  
Emergency Procedures: Evacuate unnecessary personnel. Avoid walking through spilled material.  
Ventilate area as necessary

**Environmental Precautions**

Care should be taken to prevent material from entering waterways, sewers, or drains.

**Methods for Containment and Clean-Up**

Clean up spills immediately. Contain any spills with dikes to prevent from reaching drains or waterways. Scoop or shovel spilled material into an appropriate container. Avoid sweeping in dry conditions to prevent dust generation. Dispose of contents and container in accordance with local, regional, national, and international regulations. Spilled uncontaminated dry material and solutions may be applied to plants or land as a fertilizer according to package directions.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for Safe Handling**

Wear eye protection/face protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear respiratory protection if dust is generated.

**Conditions for Safe Storage**

Store in a cool, dry, and well-ventilated place. Keep container tightly closed when not in use. Keep away from combustible and incompatible materials.

**Incompatibilities**

Combustible materials, reducing materials, organic materials, strong acids, strong bases, halogens, chlorine, chlorinated compounds, and hydrogen peroxides.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational Exposure Limits**

Component	OSHA - PEL	ACGIH - TLV
Potassium Nitrate	NONE	NONE
Ammonium Sulfate	NONE	NONE
Urea	0	0

**Appropriate Engineering Controls**

If user operations generate dust, fumes, gas, vapor, or mist, provide appropriate ventilation controls to minimize worker exposure.

**Personal Protective Equipment (PPE)**

Chemical goggles, chemical-resistant gloves, and protective clothing should be worn at all times during handling. Respiratory protection appropriate to the hazard and task performed should be worn if dust, fumes, gas, vapor, or mist is generated or if adequate ventilation is not available.

**Other Considerations**

An eye-wash station is recommended near where this product is handled.



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### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Physical State:	Solid
Appearance:	Powder and Prilled Granules
Color:	Pale Blue to Deep Blue

#### Odor:

Mild to Moderate Odor

#### Odor Threshold:

Not Available

#### pH:

4.0 – 6.0 (5% aqueous solution)

#### Melting/Freezing Point:

Not Available

#### Boiling Point/Range:

Not Available

#### Flash Point:

Not Available

#### Evaporation Rate:

Not Available

#### Flammability:

Not Available

#### Flammability Limits:

Not Available

#### Vapor Pressure:

Not Available

#### Vapor Density:

Not Available

#### Relative Density:

Not Available

#### Solubility:

Soluble in Water

#### Partition Coefficient:

Not Available

#### Auto-Ignition Temperature:

Not Available

#### Decomposition Temperature:

Not Available

#### Viscosity:

Not Available

### SECTION 10: STABILITY AND REACTIVITY

#### Reactivity

No hazardous reaction when handled and stored appropriately.

#### Chemical Stability

Stable under normal storage and temperature conditions. Decomposes upon heating.

#### Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

#### Conditions to Avoid

Extreme temperatures, open flame, combustible and incompatible materials.

#### Incompatible Materials

Combustible materials, reducing materials, organic materials, strong acids, strong bases, halogens, chlorine, chlorinated compounds, and hydrogen peroxides.

#### Hazardous Decomposition Products

Thermal decomposition products include oxides of nitrogen, oxides of carbon, and ammonia.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Likely Routes of Exposure

Eye contact, skin contact, and inhalation of dust are most likely routes of exposure. Ingestion is not expected to be a likely route of exposure through normal product use.

#### Symptoms Related To The Physical, Chemical And Toxicological Characteristics

Causes serious eye damage. Harmful if swallowed. Inhaled dusts may cause respiratory tract irritation. May cause skin irritation. No delayed or chronic effects from short- or long-term exposures are known.

#### Numerical Measures of Toxicity

Potassium Nitrate	Type	Route	Species	Result
	LD50	Oral	Rat	>2000mg/kg
	LC50	Inhalation	Rat	>0.527mg/L (4h)*



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	LD50	Dermal	Rat	>5000mg/kg
<b>Ammonium Sulfate</b>				
	N/A			
<b>Urea</b>				
	0	0	0	0
	0	0	0	0
	0	0	0	0

\*Maximum achievable concentration.

### Carcinogeny

Component	NTP <sup>1</sup>	IARC <sup>2</sup>	OSHA <sup>3</sup>
Potassium Nitrate	No	No	No
Ammonium Sulfate	No	No	No
Urea	0	0	0

1. National Toxicology Program (NTP) Report on Carcinogens

2. International Agency for Research on Cancer (IARC) Monographs

3. US Occupational Safety and Health Administration (OSHA)

## SECTION 12: ECOLOGICAL INFORMATION

	Potassium Nitrate	Ammonium Sulfate	Urea
<b>Aquatic Toxicity</b>	96-h LC50 1378mg/L Freshwater Fish	LC50 423mg/L 25h FW Flea	0
	48-h EC50 490mg/L Freshwater Flea		0
	10d EC50 >1700mg/L Several algae species		0
			0
<b>Persistence and Degradability</b>	Biodegradable	Not Established	0
<b>Bioaccumulative Potential</b>			
BCF	Not Available	Not Established	0
Log Pow	Not Available	Not Established	0
Potential	Low	Not Established	0
<b>Mobility in Soil</b>	Low	Not Established	0

### Other Adverse Effects

Large quantities of fertilizer released into the environment may kill vegetation and fish and cause algae blooms if bodies of water are contaminated.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste Disposal Recommendations

Dispose of contents and container in accordance with local, regional, national, and international regulations. Spilled uncontaminated dry material and solutions may be applied to plants or land as a fertilizer according to package directions. Care should be taken to prevent material from entering waterways, sewers, or drains.

## SECTION 14: TRANSPORT INFORMATION

**UN Number:** This product is not considered hazardous for purposes of transportation.

**Proper Shipping Name:** N/A

**Transport Hazard Classes:** N/A



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### SECTION 15: REGULATORY INFORMATION

#### US Federal Regulations

Some components of this mixture may be subject to various regulations and reporting requirements. The regulatory status of components listed below does not affect the hazard classification of this mixture listed in Section 2 of this SDS.

	Potassium Nitrate	Ammonium Sulfate	Urea
TSCA Inventory	Listed	Listed	0
SARA 302/304	Not Listed	Not Listed	0
SARA 311/312	Fire Hazard	Not Listed	0

### SECTION 16: OTHER INFORMATION

Date of Preparation/Revision: 9/4/2015

**Note:** The information provided in this Safety Data Sheet is correct to the best of our knowledge and belief at the date of its publication. The information presented herein is intended only as guidance for safe handling, use, storage, transportation, and disposal of the material. No warranty, express or implied, is made on the basis of this information.