



Nutriculture® 14-4-14 Cal-Mag Special

Safety Data Sheet

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

Revision Date: 9/3/2015

Version: 2.0

SECTION 1: IDENTIFICATION OF SUBSTANCE/MIXTURE AND COMPANY

Product Identifier

Nutriculture® 14-4-14 Cal-Mag Special

Other Means of identification

None

Recommended Use of Product

Fertilizer

Name, Address, and Telephone of Responsible Party

Plant Marvel Laboratories, Inc.
371 East 16th 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%
Calcium Nitrate	10124-37-5	26% - 32%
Magnesium Nitrate	13446-18-9	18% - 24%
Ammonium Nitrate	6484-52-2	<10%

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).



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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
Calcium Nitrate	NONE	NONE
Magnesium Nitrate	NONE	NONE
Ammonium Nitrate	NONE	NONE

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)



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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.

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



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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)*
	LD50	Dermal	Rat	>5000mg/kg
Calcium Nitrate				
	LD50	Oral	Rat	500mg/kg
	LD50	Dermal	Rat	>2000mg/kg
	0	0	0	0
Magnesium Nitrate				
	LD50	Oral	Rat	5440mg/kg
Ammonium Nitrate				
	LD50	Oral	Rat	2217mg/kg
	LC50	Inhalation	Rat	>88.8mg/L (4h)
	LD50	Dermal	Rat	>5000mg/kg

*Maximum achievable concentration.

Carcinogeny

Component	NTP ¹	IARC ²	OSHA ³
Potassium Nitrate	No	No	No
Calcium Nitrate	No	No	No
Magnesium Nitrate	No	No	No
Ammonium Nitrate	No	No	No

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	Calcium Nitrate	Magnesium Nitrate	Ammonium Nitrate
Aquatic Toxicity	96-h LC50 1378mg/L Freshwater Fish	48-h LC50 447mg/L Freshwater Fish	Not Classified	Not Classified
	48-h EC50 490mg/L Freshwater Flea	48-h EC50 >100mg/L Freshwater Flea		
	10d EC50 >1700mg/L Several algae species	72-h LC50 >100mg/L Aquatic Plants		
Persistence and Degradability	Biodegradable	Biodegradable	Not Established	Not Established
Bioaccumulative Potential				
BCF	Not Available	-	Not Available	N/A
Log Pow	Not Available	< 0	Not Available	-3.1
Potential	Low	Low	Not Available	Low
Mobility in Soil	Low	Low	Water Soluble	N/A

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.



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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

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	Calcium Nitrate	Magnesium Nitrate	Ammonium Nitrate
TSCA Inventory	Listed	Not Listed	Listed	Listed
SARA 302/304	Not Listed	Not Listed	Not Listed	Not Listed
SARA 311/312	Fire Hazard	Accute Health Hazard	Not Listed	Acute Health Hazard, Reactive Hazard

SECTION 16: OTHER INFORMATION

Date of Preparation/Revision: 9/3/2015

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.