

Product Identifier: MAD FARMER™ M.O.A.B.™
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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Mad Farmer™ M.O.A.B.™ (Mother Of All Blooms)
Product Description: A white, granular powder, having a slight characteristic odor.

Information provided by: South Coast Horticultural Supply, Inc.
 26895 Aliso Creek Road B685
 Aliso Viejo, CA 92656

Telephone: (310) 947-6158

In case of emergency call: 911
For transportation Emergency call CHEMTREC: 800-424-9300

2. COMPOSITION & INFORMATION ON INGREDIENTS

Component	CAS#	OSHA Hazard	WT%	ACGIH		OSHA	
				TLV _(TWA)	STEL	PEL _(TWA)	STEL
Monopotassium Phosphate	7778-77-0	Eye irritant; Slight to Moderate Skin Irritant, Respiratory Irritant	90 +/- 5	None	None	None	None
Monoammonium Phosphate	7722-76-1	Eye irritant; Slight to Moderate Skin Irritant, Respiratory Irritant	8 +/- 2	None	None	None	None

Particulates Not Otherwise Regulated: (Total Dust: 15mg/m³) (Respirable fraction: 5 mg/m³)

3. HAZARDS IDENTIFICATION

NPFA 704 DESIGNATION HAZARD RATING	
4= Extreme	
3= High	
2= Moderate	
1= Slight	
0= Insignificant	

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Emergency Overview: A white, granular, moderately acidic powder having a slight characteristic odor. The powder and dusts can cause eye irritation and possible slight to moderate skin irritation. Inhalation of dusts from this product may cause irritation to the respiratory tract. Ingestion of this product may cause moderate irritation to the entire gastrointestinal tract.

POTENTIAL HEALTH EFFECTS

Inhalation: Inhalation of this product's dusts may cause moderate irritation to the nose, mouth, throat, mucous membranes and lungs. Symptoms of exposure may include sneezing, coughing, shortness of breath and chest discomfort or pain.

Eye Contact: Exposure to the powder or dust can cause eye irritation through the mechanical action of the suspended particles and from the chemical interactions. Symptoms of exposure may include tearing, redness, swelling and discomfort or pain. This product is not expected to cause corneal damage or impairment of vision, when treated promptly.

Skin Contact: Exposure to the powder or dust may cause slight to moderate skin irritation. Symptoms of exposure may include redness, possible swelling and, on prolonged exposure, a drying or chafing of the skin. No published reports indicate this product or its components are absorbed through the skin.

Ingestion: Ingestion of this product may cause moderate irritation to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, abdominal discomfort and diarrhea.

Chronic Hazards: The chronic health effects of exposure by inhalation of this product are dependent upon the number, duration and concentrations of the exposures. Otherwise, the chronic exposure effects are expected to be the same as for acute exposure.

4. FIRST AID MEASURES

Inhalation: If inhaled, immediately move to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

Eye Contact: In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses, if worn. Get medical attention if irritation persists.

Skin Contact: In case of contact, cleanse affected area thoroughly by washing with mild soap and water. Remove contaminated clothing and shoes and wash before reuse. If irritation occurs and persists, get medical attention.

Ingestion: If swallowed, give plenty of water to drink. Call a physician. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

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Note to Physicians: Treat exposure symptomatically.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: This product does not flash.

Flammable Limits (in air, % by volume): **Lower:** Not applicable **Upper:** Not applicable

Autoignition Temperature: Not applicable

GENERAL HAZARD: This product is a dry powder mixture of mainly inorganic materials. The Uniform Fire Code health hazard classification for this product is **IRRITANT**. This product may produce hazardous decomposition products.

Fire Fighting Instructions: **Extinguishing Media:** Water, foam, CO₂, or dry chemicals. Use the extinguishing media that is best suited for the surrounding fire.

Fire Fighting Equipment: Fire fighters should wear full protective equipment, including self-contained breathing apparatus.

Hazardous Combustion Products: When heated to decomposition, it may emit toxic chloride fumes and Ammonia gas with toxic carbon monoxide, carbon dioxide, phosphorous oxides, nitrogen oxides and potassium oxide.

6. ACCIDENTAL RELEASE MEASURES

Land Spill: Wearing recommended protective equipment and clothing, pick up the spilled material and place in approved containers for recovery, disposal, or satellite accumulation. Neutralize the acidity, of the remaining solid, using a dilute alkaline solution that is appropriate for neutralizing acidic solids. Liberally cover spill area with sodium bicarbonate. Flush the spill area with water; collect the rinsates for disposal or sewer, as appropriate.

Water Spill: Wear recommended protective equipment and clothing if contact with hazardous material can occur. Stop or divert water flow. Dike contaminated water and remove for disposal and/or treatment. As appropriate, notify all downstream users of possible contamination.

7. HANDLING AND STORAGE

Storage Temperature: Ambient

Storage Pressure: Ambient

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General: Store this product in a cool, dry area. Protect eyes, skin and clothing from contact with this product. Wear recommended personnel protective equipment. Do not breathe this product's dusts. Use with adequate ventilation. Do not ingest this product. Keep the containers tightly closed when not in use. Wash thoroughly with soap and water after handling this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Measures: Use a local or general, mechanical exhaust ventilation system capable of maintaining emissions, in the work area, below the ACGIH-TLV, OSHA-PEL or levels that may cause irritation.

Recommended Personal Protective Equipment:

Respirator: Respiratory protection may be required when using this product. If use of this product creates dusts that exceed an ACGIH-TLV, OSHA-PEL or may cause irritation, wear a NIOSH approved full facepiece or half mask air-purifying cartridge respirator equipped with a good particulate cartridge or supplied air.

Eyes: Wear chemical goggles (recommended by ANSI Z87.1-1979), unless a full facepiece respirator is worn.

Gloves: Wear rubber or plastic gloves.

Clothing and Equipment: If contact is likely, wear a rubber or plastic apron. An eye wash station and safety shower should be in the work area.

Footwear: If contact is likely, wear rubber boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White, granular powder	Bulk Density (pounds/ft ³):	No data available
Physical State:	Solid	Vapor Pressure:	Not applicable
Odor:	Slight characteristic	Vapor density (air=1):	Not applicable
Odor Threshold:	No data available	Evaporation rate (n-Butyl Acetate=1):	Not applicable
Molecular Formula:	Mixture	VOC Content:	Not applicable
Molecular Weight:	Not applicable	% Volatile:	Nil
Boiling Point:	No data available	Solubility in H2O:	Moderate (10 – 50%)
Freezing/Melting Point:	No data available	Octanol/Water Partition Coefficient:	No data available
Specific gravity:	Not applicable	pH (as is):	Not applicable
Density (pounds/gallon):	Not applicable	pH (1% solution):	4.0 to 5.0

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10. STABILITY AND REACTIVITY

General: This product is stable and hazardous polymerization will not occur.

Conditions to avoid: None known.

Incompatible Material: Caustic and strong alkali solutions and strong oxidizers

Hazardous Decomposition Products: When heated to decomposition, it may emit toxic chloride fumes and Ammonia gas with toxic oxides of carbon, phosphorous, nitrogen and potassium.

Sensitivity to Mechanical Impact: This product is NOT sensitive to mechanical impact.

Sensitivity to Static Discharge: This product is NOT sensitive to static discharge.

11. TOXICOLOGICAL INFORMATION

COMPONENTS:	Monopotassium Phosphate	Monoammonium Phosphate
Eye Contact:	No data available	No data available
Skin Contact:	No data available	No data available
Oral Rat LD₅₀:	7,100 mg/kg	5,750 mg/kg
Dermal Rabbit LD₅₀:	Greater than 7,940 mg/kg	Greater than 7,940 mg/kg
Inhalation Rat LC₅₀:	No data available	No data available
Human Data:	No data available	No data available
Other Toxicological Data:	Oral Rat LD _{Lo} 4,640 mg/kg	No data available
Carcinogenicity:	No data available	No data available
Teratogenicity:	No data available	No data available
Mutagenicity:	No data available	No data available
Synergistic Products:	None reported	None reported
Target Organs:	Eyes, Skin, Mucous membranes and Lungs	Eyes, Skin, Mucous membranes and Lungs
Medical Conditions Aggravated By Exposure	Skin or Respiratory disorders	Skin or Respiratory disorders

12. ECOLOGICAL INFORMATION

Environmental Fate: This product is moderately soluble in water and it can affect the pH of water. Inorganic phosphates, in contact with soil, sub-surface or surface waters, may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates, usually with Calcium or Magnesium. The resultant compounds are insoluble, becoming part of the soil.

Environmental Considerations: The aquatic toxicity of this product has not been determined. However, the aquatic toxicity of this product is related to the pH of the water. For Rainbow Trout, the

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reported LC₅₀ is about a pH of 4.0 for a 7 day bioassay. Other species may vary a bit from this pH level, but all are susceptible to acidic pH conditions.

13. DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 Classification: Non-RCRA Waste

U.S. EPA Waste Number/Description: Not applicable

If this product is disposed of as shipped, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of a hazardous waste of Subpart C, nor is it listed as hazardous waste under Subpart D due to toxicity. As a non-RCRA solid waste, it should be disposed of in accordance with all local, state, and federal regulations. Consult state or local officials for proper disposal method.

14. TRANSPORTATION INFORMATION

DOT Proper Shipping Name:	Not Restricted					
	Hazard Class:	Not applicable	UN Number:	Not applicable	Packing Group:	Not applicable
	Primary Label:	None required	Subsidiary Label(s):	None required		
	Primary/Subsidiary Placards:	None required				
DOT Reportable Quantity (RQ):	None listed	RQ for Product:	Not applicable			
Marine Pollutant:	No					
2008 North American Emergency Response Guidebook No.:				Not applicable		
TDG Proper Shipping Name:	NOT RESTRICTED					
	Hazard Class:	Not applicable	UN Number:	Not applicable	Packing Group:	Not applicable
	Primary Label:	None required	Subsidiary Label(s):	None required		
	Primary/Subsidiary Placards:	None required				

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TDG Reportable Quantity (RQ):#	Not applicable			
TDG Schedule XII:	Not applicable			
Regulated Limit (RL):##	None listed	RL for Product:	Not applicable	
Other Shipping Information:	None			
<p># Canadian Transportation of Dangerous Goods Regulations (TDGR), Part IX, Table 1, Quantities or levels for Immediate Reporting: releases of reportable quantities, RQ, that meet the definition of a “dangerous occurrence” (a threat to life, health, property, or the environment) must be reported to the appropriate authorities as outlined in TDGR 9.13(1) and 9.14(1).</p> <p>## Reporting to Environment Canada is required for any releases exceeding the regulated limits, RL, of 9.2 materials (primary or secondary). The regulated limits are found in Schedule XIII of the TDGR.</p>				

15. REGULATORY INFORMATION

COMPONENTS:	Monopotassium Phosphate	Monoammonium Phosphate
<u>OSHA Target Organs:</u>	Eyes, Skin, Mucous membranes and Lungs	Eyes, Skin, Mucous membranes and Lungs
<u>Carcinogenic Potential:</u>		
Regulated by OSHA:	No	No
Listed on NTP Report:	No	No
Listed by IARC:	No	No
IARC group:	Not applicable	Not applicable
ACGIH Appendix A:	Not listed	Not listed
A1 Confirmed Human:	Not applicable	Not applicable
A2 Suspected Human:	Not applicable	Not applicable
<u>U.S. EPA Requirements:</u>		
Release Reporting		
CERCLA (40 CFR 302)		
Listed Substance:	Not listed	Not listed
Reportable Quantity:	Not applicable	Not applicable
Category:	Not applicable	Not applicable
RCRA Waste No:	Not applicable	Not applicable
Unlisted Substance:	Not applicable	Not applicable

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Reportable Quantity:	Not applicable	Not applicable
Characteristic:	Not applicable	Not applicable
RCRA Waste No:	Not applicable	Not applicable
SARA TITLE III		
Section 302 & 303 (40 CFR 355):		
Listed Substance:	Not listed	Not listed
Reportable Quantity:	Not applicable	Not applicable
Planning Threshold:	Not applicable	Not applicable
Section 311 & 312 (40 CFR 370)		
Hazard Categories (product):		
Fire:	N	
Sudden Release of Pressure:	N	
Reactive:	N	
Acute Health:	Y	
Chronic Health:	N	
Planning Threshold:	10,000 pounds	10,000 pounds
Section 313 (40 CFR 372):		
Listed Toxic chemical:	Not listed	Not listed
Reporting Threshold:	Not applicable	Not applicable
U.S. TSCA Status		
Listed (40 CFR 710):	Yes	Yes
State Regulations		
State of California: Safe Drinking Water and Toxins Enforcement Act, 1986 (Proposition 65):		
Carcinogen:	No	No
Reproductive Toxin:	No	No
Other Regulations		
State Right to Know Laws:	None known	
Canadian Regulations		
Product Information:		
Controlled Product:	Yes	
WHMIS HAZARD Symbols:	Material Causing Other Toxic Effects	
WHMIS Class & Division:	D.2B	
Ingredient Information:		
IDL Substance:	No	No
DSL or NDSL lists:	DSL	DSL

16. OTHER INFORMATION

EPA Registration number: Not applicable

Approved Product Uses: Not applicable

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Special Notes:

This product is not formulated to contain any material, which the state of California has found to cause cancer and/or birth defects or other reproductive harm.

Additional SARA Title III, Section 313 Information:

When this product is dissolved in water, it is subject to the above regulation under the “aqueous ammonia from water dissociable ammonium salts and other sources”; 10 percent of total aqueous ammonia is reportable under this listing.

Special Instructions:

When making solutions of this product, always add this product to cool or warm water, or other aqueous solutions, with adequate mixing to ensure a uniform solution.

Do not add this product to hypochlorite bleaches, chlorine sanitizers or chlorinated cleaners as this may liberate toxic corrosive Chlorine gas.

MSDS Revision Information: MSDS-M1

Updated April 24, 2012.

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