



## 1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Orchid Seed Sowing Medium, Contains Charcoal and Agar

PRODUCT NUMBER: P723

COMPANY INFO: PhytoTech Labs Inc.  
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EMERGENCY PHONE NUMBER 1-800-535-5053 - US Only  
(INFOTRAC): 1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by PhytoTech Labs Inc. are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, in vitro diagnostics, or as household chemicals.

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture:

GHS Classification:

H315 – Skin irritation (Category 2)  
H319 – Eye irritation (Category 2A)

### GHS Label elements, including hazard and precautionary statements:

Pictogram:



Signal Word: **Warning**

Hazard Statements:

H315 – Causes skin irritation.  
H319 – Causes serious eye irritation.  
H335 – May cause respiratory irritation.

Precautionary Statements:

P280 – Wear protective clothing/protective gloves/eye protection.  
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Hazards not otherwise classified (HNOC) or not covered by GHS: - none**

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture that contains, but is not limited to, the following components that may cause harm to the user or environment or may be suspected to do so:

| Ingredient                      | CAS Number | Percent  | Hazardous  |
|---------------------------------|------------|----------|--|
| Ammonium Nitrate                | 6484-52-2  | 1.26 %   | No exposure limits established by OSHA or ACGIH                          |
| Potassium Nitrate               | 7757-79-1  | 1.45 %   | No exposure limits established by OSHA or ACGIH                          |
| EDTA, Disodium Salt, Dihydrate  | 6381-92-6  | 0.057 %  | No exposure limits established by OSHA or ACGIH                          |
| Cobalt Chloride, Hexahydrate    | 7791-13-1  | 0.0002 % | No exposure limits established by OSHA or ACGIH                          |
| Cupric Sulfate, Pentahydrate    | 7758-99-8  | 0.0002 % | No exposure limits established by OSHA or ACGIH                          |
| Sodium Molybdate(VI), Dihydrate | 10102-40-6 | 0.002 %  | OSHA PEL: 5 mg (Mo)/m <sup>3</sup> ; ACGIH TLV: 5 mg (Mo)/m <sup>3</sup> |
| Manganese Sulfate, Monohydrate  | 10034-96-5 | 0.013 %  | OSHA PEL: 5 mg (Mn)/m <sup>3</sup>                                       |
| Potassium Iodide                | 7681-11-0  | 0.0006 % | No exposure limits established by OSHA or ACGIH                          |
| Boric Acid                      | 10043-35-3 | 0.005 %  | No exposure limits established by OSHA or ACGIH                          |
| Charcoal                        | 7440-44-0  | 3.05 %   | OSHA PEL: 5 mg/m <sup>3</sup> (resp), 15 mg/m <sup>3</sup> (total)       |

## 4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

| Route of Entry | Symptoms  | First Aid Procedures   |
|----------------|---|--|
| Ingestion      | May cause irritation if swallowed   | If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. <b>Get medical attention.</b>  |
| Inhalation     | May cause irritation to respiratory tract   | Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. <b>Get medical attention.</b>    |
| Eye Contact    | Direct contact may cause irritation. May cause redness, tearing, or blurred vision. | Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. <b>Get medical attention if irritation persists.</b> |
| Skin Contact   | Irritating. May cause reddening, itching or inflammation.                           | Wash area thoroughly with soap and water. Remove and wash contaminated clothing. <b>Get medical attention if irritation persists.</b>  |

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

## 5. FIRE FIGHTING MEASURES

|   |   |
|---|---|
| Suitable Extinguishing Media:                                 | Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.   |
| Special Protective Equipment and Precaution for Firefighters: | In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.               |
| Hazardous Combustion Products:                                | May emit toxic fumes under fire conditions.   |
| Toxic Gases Produced:   | Carbon oxides, Nitrogen oxides (NO <sub>x</sub> ), Sulphur oxides, Hydrogen chloride gas, Potassium oxides, Sodium oxides, Cobalt/cobalt oxides, Molybdenum oxides, Copper oxides |

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust.

|                                    |   |
|------------------------------------|---|
| Environmental Precautions:         | Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  |
| Method of Containment and Cleanup: | Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let products enter drains. |

## 7. HANDLING AND STORAGE

|                                  |  |
|----------------------------------|--|
| Precaution for Safe Handling:    | Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Keep away from combustible materials. Wash thoroughly after use. |
| Conditions for Safe Storage:     | Keep in a tightly closed container and store in a cool, dry, and well-ventilated area. Protect from moisture.  |
| Incompatibilities:               | No data available  |
| Recommended Storage Temperature: | 2-8°C  |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): Activated charcoal: 5 mg/m<sup>3</sup> (resp), 15 mg/m<sup>3</sup> (total)

Manganese Sulfate, Monohydrate : 5 mg (Mn)/m<sup>3</sup>

ACGIH Threshold Limit Values (TLVs): Sodium Molybdate(VI), Dihydrate: 5 mg (Mo)/m<sup>3</sup>

Sodium Molybdate(VI), Dihydrate: 5 mg (Mo)/m<sup>3</sup>

Engineering Controls: Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection: Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.

Skin Protection: Protective gloves

Body Protection: Lab coat

Respiratory Protection: Respiratory protection is not required.  
Use N95 (US) or type P1 (EN 143) dust mask where dust level is nuisance.  
A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Gray to black powder

pH (32.74 g/L): 5.25 – 6.25

Solubility: Partially soluble in Water

Melting Range: No data available

Vapor Density: No data available

Vapor Pressure: No data available

Specific Gravity: No data available

Odor: Odorless

Odor Threshold: No data available

Viscosity: No data available

Relative Density: No data available

Evaporation Rate: No data available

Initial Boiling Point and Boiling Range: No data available

Flammability (solid, gas): No data available

Partition coefficient: No data available  
n-octanol/water):

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Flash Point (Closed Cup): No data available

Flammable Limits: Upper (%) – No data available Lower (%) – No data available

## 10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use

Possibility of Hazard Reactions: Will not occur

Conditions to Avoid: Moisture, excessive heat

Incompatibles Materials: Strong oxidizing agents

Hazardous Decomposition Products: Carbon oxides, Nitrogen oxides (NO<sub>x</sub>), Sulphur oxides, Hydrogen chloride gas, Potassium oxides, Sodium oxides, Cobalt/cobalt oxides, Molybdenum oxides, Copper

**11. TOXICOLOGICAL INFORMATION**

|           |  |                   |
|-----------|--|-------------------|
| Toxicity: | LD <sub>50</sub> (Oral-Rat)(mg/Kg):      | No data available |
|           | LD <sub>50</sub> (IP-Mouse)(mg/Kg):      | No data available |
|           | LD <sub>50</sub> (Dermal-Rabbit)(mg/Kg): | No data available |

|                  |           |    |
|------------------|-----------|----|
| Carcinogenicity: | NTP:      | No |
|                  | IARC:     | No |
|                  | OSHA Reg: | No |

|                        |                   |
|------------------------|-------------------|
| Reproductive Toxicity: | No data available |
|------------------------|-------------------|

|                                 |                    |                   |
|---------------------------------|--------------------|-------------------|
| Specific Target Organ Toxicity: | Single Exposure:   | No data available |
|                                 | Repeated Exposure: | No data available |

|                |                   |
|----------------|-------------------|
| Target Organs: | No data available |
|----------------|-------------------|

|                  |   |
|------------------|---|
| Routes of Entry: | Inhalation, Ingestion, skin and eye contact |
|------------------|---|

|                 |            |
|-----------------|------------|
| NIOSH/RTECS NO: | Not listed |
|-----------------|------------|

***To the best of our knowledge the toxicological properties of this product have not been thoroughly investigated.***

**12. ECOLOGICAL INFORMATION**

|              |                   |
|--------------|-------------------|
| Ecotoxicity: | No data available |
|--------------|-------------------|

|                                |                   |
|--------------------------------|-------------------|
| Persistence and Degradability: | No data available |
|--------------------------------|-------------------|

|                            |                   |
|----------------------------|-------------------|
| Bioaccumulative Potential: | No data available |
|----------------------------|-------------------|

|                   |                   |
|-------------------|-------------------|
| Mobility in Soil: | No data available |
|-------------------|-------------------|

|                        |                   |
|------------------------|-------------------|
| Other Adverse Effects: | No data available |
|------------------------|-------------------|

**13. DISPOSAL CONSIDERATION**

|                     |  |
|---------------------|--|
| Disposal Procedure: | Dispose in accordance with all applicable federal, state, and local environmental regulations. |
|---------------------|--|

**14. TRANSPORT INFORMATION**

|                    |                       |                                   |
|--------------------|-----------------------|-----------------------------------|
| Domestic (D.O.T.): | Proper Shipping Name: | CHEMICALS, N.O.S. (NON-REGULATED) |
|                    | Hazard Class:         | N/A                               |
|                    | UN/NA:                | N/A                               |
|                    | Labels:               | N/A                               |

International:

|       |                       |                                   |
|-------|-----------------------|-----------------------------------|
| IMDG: | Proper Shipping Name: | CHEMICALS, N.O.S. (NON-REGULATED) |
|       | Hazard Class:         | N/A                               |
|       | UN/NA:                | N/A                               |
|       | Labels:               | N/A                               |

|       |                       |                                   |
|-------|-----------------------|-----------------------------------|
| IATA: | Proper Shipping Name: | CHEMICALS, N.O.S. (NON-REGULATED) |
|       | Hazard Class:         | N/A                               |
|       | UN/NA:                | N/A                               |

Labels: N/A

## 15. REGULATORY INFORMATION

**TSCA:** No

### SARA TITLE III:

Section 302 (EHS) Ingredients: No

Section 313 Ingredients: Yes

|                   | CAS No.   |
|-------------------|-----------|
| Ammonium Nitrate  | 6484-52-2 |
| Potassium Nitrate | 7757-79-1 |

Section 304 (EHS/CERCLA) Ingredients: No

Section 311/312 Hazard: Acute Health Hazard, Chronic Health Hazard, Reactivity Hazard

**California Proposition 65 List:** None of the components in this product are known to cause cancer or reproductive toxicity

### Massachusetts Right To Know Components:

|                   | CAS No.   |
|-------------------|-----------|
| Ammonium Nitrate  | 6484-52-2 |
| Potassium Nitrate | 7757-79-1 |
| Ferrous Sulfate   | 7782-63-0 |
| Zinc Sulfate      | 7446-20-0 |

### New Jersey Right to Know Components:

|                   | CAS No.   |
|-------------------|-----------|
| Ammonium Nitrate  | 6484-52-2 |
| Potassium Nitrate | 7757-79-1 |
| Ferrous Sulfate   | 7782-63-0 |
| Zinc Sulfate      | 7446-20-0 |

### Pennsylvania Right to Know Components:

|                   | CAS No.    |
|-------------------|------------|
| Ammonium Nitrate  | 6484-52-2  |
| Potassium Nitrate | 7757-79-1  |
| Manganese Sulfate | 10034-96-5 |
| Ferrous Sulfate   | 7782-63-0  |
| Zinc Sulfate      | 7446-20-0  |

## 16. OTHER INFORMATION

|              |        |              |                 |                     |
|--------------|--------|--------------|-----------------|---------------------|
| HMIS Rating: | Health | Flammability | Physical Hazard | Personal Protection |
|              | 2      | 0            | 2               | B                   |
| NFPA Rating: | Health | Fire Hazard  | Instability     | Special Hazard      |
|              | 2      | 0            | 2               | OX                  |

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