SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Antioxidant Mixture
PRODUCT NUMBER: A126
COMPANY INFO: PhytoTechnology Laboratories®
PO Box 12205, Shawnee, KS 66282-2205
Phone: 1-888-749-8682 or 1-913-341-5343; Fax: 1-888-449-8682 or 1-913-341-5442
www.phytotechlab.com

EMERGENCY PHONE NUMBER
(INFOTRAC): 1-800-535-5053 - US Only
1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by PhytoTechnology Laboratories® 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, or as household chemicals.

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

GHS Classification:
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 gloves/protective clothing/eye protection/face 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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-Ascorbic Acid</td>
<td>50-81-7</td>
<td>40 %</td>
<td>No exposure limits established by OSHA or ACGIH</td>
</tr>
<tr>
<td>Citric Acid, Anhydrous</td>
<td>77-92-9</td>
<td>60 %</td>
<td>No exposure limits established by OSHA or ACGIH</td>
</tr>
</tbody>
</table>

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

Product No: A126
Ingestion  May cause irritation if swallowed
If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.

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. Get medical attention.

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. Get medical attention if irritation persists.

Skin Contact  Irritating. May cause reddening, itching or inflammation.
Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.

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: No data available

6. ACCIDENTAL RELEASE MEASURES
Personal Precautions, Protective Equipment and Emergency Procedures:
Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

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 product enter drains.

7. HANDLING AND STORAGE
Precaution for Safe Handling: Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Provide adequate ventilation at places where dust is formed. Wash thoroughly after use.

Conditions for Safe Storage: Keep in a tightly closed container and store in a cool, dry, and well-ventilated area. Product is hygroscopic.

Incompatibilities: No data available

Recommended Storage Temperature: Room Temperature

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
OSHA’s Permissible Exposure Limits (PELs): None
Threshold Limit Values (TLVs): None
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White to off-white powder</td>
</tr>
<tr>
<td>pH</td>
<td>Under Development</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in Water</td>
</tr>
<tr>
<td>Melting Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial Boiling Point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point (Closed Cup)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>Upper (%) – No data available</td>
</tr>
<tr>
<td></td>
<td>Lower (%) – No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity: No data available
Chemical Stability: Stable under normal conditions of use
Possibility of Hazard Reactions: No data available
Conditions to Avoid: No data available
Incompatibles Materials: No data available
Hazardous Decomposition Products: No data available

11. TOXICOLOGICAL INFORMATION

Toxicity: No data available
LD50 (Oral-Rat)(mg/Kg) No data available
LD50 (IPR-Mouse)(mg/Kg) No data available
LD50 (Dermal-Rat)(mg/Kg) No data available
Carcinogenicity: No
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 and ingestion
NIOSH/RTECS NO: No data available

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
  Reportable Quantity: 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: No
Section 304 (EHS/CERCLA) Ingredients: No
Section 311/312 Hazard: No SARA Hazards
Massachusetts Right to Know Components: This product is not on the Massachusetts Substance List (MSL).
Pennsylvania Right to Know Components: This product is not listed on the Pennsylvania Code’s Hazardous Substance List (Chapter 323).
New Jersey Right to Know Components: This product is not listed amongst the New Jersey Right to Know Hazardous Substance Fact Sheets
California Prop. 65 Components: This product is not known to the State of California to cause cancer or reproductive toxicity.

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Rating:</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NFPA Rating:</th>
<th>Health Hazard</th>
<th>Fire Hazard</th>
<th>Instability</th>
<th>Special Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

*Phyto*Technology Laboratories® provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. *Phyto*Technology Laboratories® shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.

Revision Date: 29 November 2018