Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Name: Antioxidant, Vitamin E Acetate
Product Code: 507-107X

1.2 Intended Use: Compound used in customer substance/mixture/product.

1.3 Supplier: Majestic Mountain Sage Inc
2490 S 1350 W
Nibley, UT 84321 - United States of America
T 435.755.0863 - F 435.755.2108
www.TheSage.com

1.4 Emergency Telephone Number
No additional information available

SECTION 2: Hazards Identification

2.1 GHS Classification in Accordance with 29 CFR 1910.1200
Not a hazardous substance or mixture.

2.2 GHS Label Elements
Not a hazardous substance or mixture.

2.3 Hazards Not Otherwise Classified (HNOC)
None known.

SECTION 3: Composition/Information on Ingredients

3.1 Substance

Synonyms: Tocopheryl Acetate

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-yl acetate (dl-a-tocopheryl acetate)</td>
<td>7695-91-2</td>
<td>96-100</td>
</tr>
</tbody>
</table>
SECTION 4: First Aid Measures

4.1 Description of First Aid Measures

General Advice: No hazards which require special first aid measures.

Eye Contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eyes wide open while rinsing.

Skin Contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.

Inhalation: Move to fresh air. If symptoms persist, call a physician.

Ingestion: Clean mouth with water and afterwards drink plenty of water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms: No specific symptoms known.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians: Treat symptomatically.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

Suitable: Alcohol-resistant foam, dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable: High volume water jet.

5.2 Specific Hazards Arising From the Chemical

None known.

5.3 Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures
Use personal protective equipment.

6.2 Environmental Precautions
Try to prevent the material from entering drains or water courses.

6.3 Methods and Material for Containment and Cleaning Up
Wipe up with absorbent material (e.g. cloth, fleece).
Keep in suitable, closed containers for disposal.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling
For personal protection see Section 8. Take necessary action to avoid static electricity discharge. Product will burn under fire conditions.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

| Storage Conditions:            | To maintain product quality, do not store in heat or direct sunlight. Keep container tightly closed and dry. |
| Incompatible Materials:        | No special restrictions on storage with other products.          |

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

| Exposure Guidelines:           | Contains no substances with occupational exposure limit values. |

8.2 Individual Protection Measures, Such as Personal Protective Equipment

| Eye/Face Protection:           | Wear safety glasses with side shields (or goggles).             |
| Skin/Body Protection:         | Wear protective nitrile rubber gloves and protective clothing.  |
**Respiratory Protection:** No personal respiratory protective equipment normally required. Breathing apparatus needed only when aerosol or mist is formed.

**General Hygiene Considerations:** Handle in accordance with good industrial hygiene and safety practices.

### SECTION 9: Physical and Chemical Properties

#### 9.1 Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Viscous liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>Colorless - Yellow</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>No information available</td>
</tr>
<tr>
<td>pH:</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting Range/Point:</td>
<td>-27.5°C</td>
</tr>
<tr>
<td>Boiling Point/Range:</td>
<td>267°C (3.2 hPa)</td>
</tr>
<tr>
<td></td>
<td>184°C (0.01 hPa)</td>
</tr>
<tr>
<td></td>
<td>&gt;300°C (1.013 hPa) with decomposition</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>469-511°F (243-266°C) Method: DIN 51758</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Lower Explosion Limit:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper Explosion Limit:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>&lt;0.001 hPa (20°C)</td>
</tr>
<tr>
<td></td>
<td>Ca. 1.4 hPa (240°C)</td>
</tr>
<tr>
<td>Relative Vapor Density:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density:</td>
<td>Ca. 0.98 g/cm³ (20°C)</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>&lt;0.8 mg/l (20°C; OECD Test Guideline 105)</td>
</tr>
<tr>
<td></td>
<td>Practically insoluble</td>
</tr>
<tr>
<td>Solubility in Other Solvents:</td>
<td>Acetone: easily soluble</td>
</tr>
<tr>
<td></td>
<td>Chloroform: easily soluble</td>
</tr>
<tr>
<td></td>
<td>Diethylether: easily soluble</td>
</tr>
<tr>
<td></td>
<td>Alcohol: soluble</td>
</tr>
<tr>
<td>Partition Coefficient: –</td>
<td>octanol/water:</td>
</tr>
<tr>
<td></td>
<td>log Pow 12.2 (calculated (citation from literature))</td>
</tr>
<tr>
<td>Auto-ignition Temperature:</td>
<td>Not pyrophoric</td>
</tr>
<tr>
<td>Ignition Temperature:</td>
<td>608°F (320°C) (at 985-1,004 hPa, DIN 51794)</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and Reactivity

10.1 Reactivity
No hazards to be specially mentioned.

10.2 Chemical Stability
Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions
Possible incompatibility with materials listed under Section 10.5.

10.4 Conditions to Avoid
Heat.

10.5 Incompatible Materials
Bases, strong acids, oxidizing agents, iron salts, silver salts, and powdered metal salts.

10.6 Hazardous Decomposition Products
No decomposition if used as directed.

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

**Acute Oral Toxicity:**
- LD50 (Rat): >10,000 mg/kg
  (OECD Test Guideline 401)
- LD50 (Mouse): >4,000 mg/kg
  (OECD Test Guideline 401)

**Acute Dermal Toxicity:**
- LD50 (Rat): >3,000 mg/kg

**Skin Irritation:**
- No skin irritation (Rabbit, OECD Test Guideline 404)
- No phototoxic skin reaction (Guinea pig)

**Eye Irritation:**
- No eye irritation (Rabbit, OECD Test Guideline 405)
### Sensitization:
Does not cause skin sensitization (human)
No photoallergenic skin reaction (Guinea pig)

### Genotoxicity in Vitro:
Negative (Ames test, OECD Test Guideline 471)
Not genotoxic (In vitro cytogenicity study in mammalian cells, OECD Test Guideline 473)

### Genotoxicity in Vivo:
Not genotoxic (In vivo micronucleus test, Mouse, OECD Test Guideline 474)

### Carcinogenicity:
(Rat, OECD Test Guideline 453)
Animal testing did not show any carcinogenic effects.

### IARC:
No component of this product present at levels greater than or equal to 0.1% is identified as probably, possible or confirmed human carcinogen by IARC.

### OSHA:
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

### NTP:
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive Toxicity:
No toxicity to reproduction
(Rat, OECD Test Guideline 415)

### Teratogenicity:
Not teratogenic
NOAEL: >1,600 mg/kg bw/d (Rat, OECD Test Guideline 414)

### STOT - Single Exposure:
This substances or mixture is not classified as a specific target organ toxicant, single exposure.

### STOT - Repeated Exposure:
NOAEL (Oral, Rat): 2000 mg/kg bw/d
Subacute toxicity study (28 days) (OECD Test Guideline 407)
NOAEL (Oral, Rat): 500 mg/kg bw/d
Sub-chronic toxicity study (90-day) (OECD TEST Guideline 408)

### Further Information:
The product passes into and partly through the skin of pigs.

### Aspiration Toxicity:
No aspiration toxicity classification.
SECTION 12: Ecological Information

12.1 Ecotoxicity

Toxicity to Fish: Oncorhynchus mykiss (rainbow trout)
LC50 (96 h) > 100 mg/l
(Nominal concentration)
(OECD Test guideline 203)

Toxicity to Daphnia and Other Aquatic Invertebrates: Daphnia magna (Water flea)
EC50 (48 h) > 100 mg/l
(Nominal concentration)
(OECD Test Guideline 202)

Toxicity to Algae: Pseudokirchneriella subcapitiata (micro algae)
EC50 (72 h) >100 mg/l
(Nominal concentration)
(OECD Test Guideline 201)

Toxicity to Bacteria: Pseudomonas putida
EC10 (0.5 h) > 10,000 mg/l
(nominal concentration)
Activated sludge
EC20 (0.5 h) >927 mg/l

Toxicity to Fish (Chronic Toxicity): Oncorhynchus mykiss (rainbow trout)
NOEC (28 d) 100 mg/l
(nominal concentration)
(OECD Test Guideline 215)

12.2 Persistence and Degradability

Biodegradability: Not readily biodegradable.
17% (28 d)
(OECD Test Guideline 301F)

12.3 Bioaccumulation

Partition coefficient: –
octanol/water: log Pow 12.2 (calculated (citation from literature)
12.4 Mobility in Soil

Distribution among environmental compartments: Adsorption, Soil

log Koc 7.14 (calculated value)

12.5 Results of PBT and vPvB Assessment

The substance does not fulfill the PBT and vPvB criteria.

12.6 Other Adverse Effects

Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A. App.A+B).

Additional Ecological Information: There is no data available for this product.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

Waste from Residues: Use must determine if any wastes generate exhibit hazardous characteristics as per 40 CFR Part 261 or other national/local legislation.

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.
SECTION 14: Transport Information

14.1 International Regulations

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNRTDG:</td>
<td>Not regulated as a dangerous good.</td>
</tr>
<tr>
<td>IATA-DGR:</td>
<td>Not regulated as a dangerous good.</td>
</tr>
<tr>
<td>IMDG-Code:</td>
<td>Not regulated as a dangerous good.</td>
</tr>
</tbody>
</table>

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable for product as supplied.

14.2 National Regulations

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>49 CFR:</td>
<td>Not regulated as a dangerous good.</td>
</tr>
<tr>
<td>Remarks:</td>
<td>Not classified as dangerous in the meaning of transport regulations.</td>
</tr>
</tbody>
</table>

SECTION 15: Regulatory Information

15.1 U.S. Federal Regulations

**EPCRA - Emergency Planning and Community Right-to-Know Act**
No information available.

**CERCLA Reportable Quantity**
This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**
This material does not contain any components with a section 304 EHS RQ.

**SARA311/312 Hazards:** No SARA Hazards

**SARA 302:**
This material does not contain any components with a section 302 EHS TPQ.

**SARA 313:**
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
**Clean Air Act**
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A+B)
This product does not contain any hazardous air pollutant (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemical listed under the U.S. Clean Air Act Section 112® for Accidental Release Prevention (40 CFR 68.130, Subpt. F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC’s (40 CFR 60.489).

### 15.2 U.S. State Regulations

**Massachusetts Right to Know**
No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right to Know**
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-yl acetate 7695-91-2

**TSCA List**
No substances are subject to a Significant New Use Rule.
No substances are subject to TSCA 12(b) export notification requirements.

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### 16.1 Full Text of Other Abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DOT - Department of Transportation; DSL = Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substances; Elx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentrations associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonizes System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECS - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime
16.2 NFPA Rating

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>0</td>
</tr>
<tr>
<td>Flammability:</td>
<td>1</td>
</tr>
<tr>
<td>Instability:</td>
<td>0</td>
</tr>
</tbody>
</table>

16.3 HMIS Rating

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
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</tr>
<tr>
<td>Flammability:</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard:</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes: This safety data sheet is based on the properties of the material known at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment holds no responsibility. This document is not intended for quality assurance purposes.