SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Product Identifier:
- Trade Name: Vitamin E Linoleate
- INCI Name: Tocopheryl Linoleate/Oleate

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:
- Product Use: Active ingredient in cosmetic and personal care applications

1.3 Details of the Supplier of the Safety Data Sheet:
- Manufacturer: TRI-K INDUSTRIES, INC.
  2 Stewart Court
  Denville, NJ 07834 USA
- Information Phone Number: +1 (973) 298-8850
- E-mail: info@tri-k.com

1.4 Emergency Telephone Number:
- Emergency Spill Information: +1 (973) 298-8850 (TRI-K Industries, Inc.)
  +1 (800) 222-1222 (National Poison Control Center)

24-HOUR EMERGENCY TELEPHONE NUMBER: CHEMTREC +1 (800) 424-9300 or +1 (703) 527-3887

SDS Date of Preparation: June 1, 2015

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

- Classification according to Regulation (EC) No 1272/2008 [CLP]:
  The substance does not meet the criteria for a hazardous substance

- Classification according to Directive 1999/45/EC [DPD]:
  The substance does not meet the criteria for dangerous substances

2.2 Label Elements: Labeling according to Regulation (EC) No 1272/2008 [CLP]
- Not applicable
- Hazard Statement: Not applicable
- Precautionary Statement: Not applicable
2.3 Other Hazards: None

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>EINECS#</th>
<th>DSD Classification (67/548/EEC)</th>
<th>CLP Classification (EC) No 1272/2008</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tocopheryl Linoleate/Oleate</td>
<td>36148-84-2, 139893-35-9</td>
<td>413-870-5</td>
<td>Not classified as dangerous</td>
<td>Not classified as hazardous</td>
<td>&gt;50%, &gt;25%</td>
</tr>
</tbody>
</table>

Additional information: For full text of H-statements and R-phrases: see SECTION 16

### SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:
   - **Eye Contact:** Flush with water for at least 15 minutes. Seek medical attention.
   - **Skin Contact:** Wash material off the skin with soap and water. Seek medical attention if irritation develops.
   - **Inhalation:** Not applicable, avoid breathing liquid or aerosols of material
   - **Ingestion:** Wash out mouth with water. If swallowed in large quantities, induce vomiting and seek medical attention.

4.2 Most Important symptoms and effects, both acute and delayed:
   In rare cases may cause skin or eye irritation due to prolonged or repeated exposure. Considered to be non-toxic by oral ingestion (based on nature of material). No other adverse clinical effects are known to be associated with exposure to this material.

4.3 Indication of any immediate medical attention and special treatment needed:
   No immediate medical treatment normally needed.

### SECTION 5: FIRE FIGHTING MEASURES

5.1 Suitable Extinguishing Media:
   Dry chemical, CO₂

5.2 Special Hazards Arising from the Substance or Mixture:
   - **Unusual Fire and Explosion Hazards:** This material is assumed to be combustible. When heated to decomposition the material emits toxic fumes.
   - **Hazardous Decomposition Products:** CO₂
SAFETY DATA SHEET
Vitamin E Linoleate

5.3 Advice for Fire-Fighters:
   Special Fire Fighting Procedures:
   Containers should be moved from the area of the fire if it can be done without risk. During a
   fire, toxic gas (carbon dioxide) may be generated by thermal decomposition or combustion.
   Self-contained breathing apparatus with full-face piece and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:
   Ensure adequate ventilation. Use chemical safety goggles for eye/face protection.

6.2 Environmental Precautions:
   Try to prevent spills with spreading and entering sewers and waterways

6.3 Methods and Material for Containment and Cleaning Up:
   Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical container
   using non sparking tools. For small quantities, wipe up the spill with a cloth or paper towel.

6.4 Reference to Other Sections:
   Refer to Section 8 for protective equipment and Section 13 for disposal considerations

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:
   Avoid contact with skin or eyes.

7.2 Conditions for Safe Storage, Including any Incompatibilities:
   Keep containers tightly closed and store in a cool, dry, well-ventilated locations.

7.3 Specific end use(s): Active ingredient in cosmetic and personal care applications

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>8.1.1 Occupational Exposure Limits:</th>
<th>8.1.2 Additional exposure limits under the conditions of use:</th>
<th>8.1.3 DNEL/DMEL and PNEC-Values:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tocopheryl Linoleate/Oleate</td>
<td>No limits established</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>
8.2 Exposure Controls:

8.2.1 Appropriate Engineering Controls: General mechanical ventilation is acceptable

8.2.2 Individual protection measures, such as personal protective equipment:

- **Eye/face protection:** Chemical goggles with side splash protection recommended
- **Hand Protection:** Protective gloves
- **Body Protection:** Wear appropriate clothing
- **Respiratory Protection:** None required under normal conditions of use
- **Thermal Hazards:** None required under normal conditions of use
- **Other:** An eye wash facility should be available in the work area. Employees must practice good personal hygiene, washing exposed areas of the skin several times daily. Launder contaminated clothing before re-use.

8.2.3 Environmental Exposure Controls: Avoid direct releases to the environment

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>A light yellow to yellow liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint/Characteristic</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting Point / freezing point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>240 – 253°C / 0.01 mmHg</td>
</tr>
<tr>
<td>Flash Point (COC)</td>
<td>315°C</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.920 – 0.936 @ ~ 20°C</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>6.2 @ 30°C</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>352°C</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not Available</td>
</tr>
<tr>
<td>Viscosity (cP)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Explosion Properties</td>
<td>None</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>None</td>
</tr>
</tbody>
</table>

9.2 Other Information:

None

### SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Not reactive under normal conditions of use
10.2 **Chemical Stability:**
No known hazardous reactions

10.3 **Possibility of Hazardous Reactions:**
None known

10.4 **Conditions to Avoid:**
Gross bacterial contamination

10.5 **Incompatible Materials:**
Strong oxidizing agents and alkalis

10.6 **Hazardous Decomposition Products:**
Burning can produce smoke and CO₂

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 **Information on Toxicological Effects:**
- **Acute toxicity:** LD₅₀ (rat, oral) > 10g/kg, LD₅₀ (rat, dermal) > 10g/kg
- **Irritation:** Test results indicate that the product is non-irritant.
- **Corrosivity:** This is not a corrosive product.
- **Sensitization:** Test results indicate that the product is non-sensitizing.
- **Repeated dose toxicity:** No data available
- **Carcinogenicity:** None of the components are listed as a carcinogen by IARC, NTP, OSHA, ACGIH or the EU Substances Directive.
- **Mutagenicity:** AMES test results indicate that this product is non-mutagenic.
- **Toxicity for reproduction:** Not expected to affect reproduction or development.

**SECTION 12: ECOLOGICAL INFORMATION**

12.1 **Toxicity:**
- **Growth Inhibition on Algae:** EbLR₅₀ (72) → 100 mg/l loading rate WAF, ErLR₅₀ (0-72) → 100 mg/l loading rate WAF
- **Fish:** NOEC → 100 mg/l loading rate WAF
- **Daphnia:** NOEC → 100 mg/l loading rate WAF
- **Bacteria:** IC₅₀ > 100 mg/l

12.2 **Persistence and Degradability:**
Not available.
12.3 Bio accumulative Potential:
Not expected to be bio-accumulative in aquatic organisms

12.4 Mobility in Soil:
Not available

12.5 Results of PBT and vPvB Assessment:
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other Adverse Effects:
None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:
Incineration in accordance with local regulations

SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>EU land transport (ADR/RID/ADN)</th>
<th>Sea Transport (IMDG)</th>
<th>Air Transport (ICAO/IATA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.2 UN Proper Shipping Name</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.3 Transport Hazard Class(s)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4 Packing Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.5 Environmental Hazards</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.6 Special Precautions for user</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU EINECS/ELINCS/NLP:</td>
<td>All of the components of this product are listed on the EINECS Inventory.</td>
</tr>
<tr>
<td>Canada DSL/NDSL</td>
<td>CAS no. 139893-35-9 not listed on the DSL</td>
</tr>
<tr>
<td>US TSCA</td>
<td>Not listed on the TSCA Inventory</td>
</tr>
<tr>
<td>Korea KECI</td>
<td>Not listed</td>
</tr>
<tr>
<td>China IECSC</td>
<td>CAS no. 139893-35-9 not listed on the DSL listed on the IECSC.</td>
</tr>
<tr>
<td>Japan ENCS</td>
<td>Not listed on the Japanese Existing and New Chemical Substances Inventory.</td>
</tr>
<tr>
<td>Philippine PICCS</td>
<td>Not listed on the PICCS.</td>
</tr>
<tr>
<td>Australia AICS</td>
<td>CAS no. 139893-35-9 not listed on the AICS.</td>
</tr>
</tbody>
</table>

15.2 Chemical Safety Assessment:
No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: OTHER INFORMATION

16.1 Indication of Changes
Version 1 created on June 1, 2015.

16.2 List of Relevant R-phrases (number and full text):
Not applicable

16.3 Legal Disclaimer
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