SAFETY DATA SHEET: OLEIC ACID

1. IDENTIFICATION

Product Name: OLEIC ACID
Synonyms: 9-Octadecenoic acid
Formula and Formula Weight: C18H34O2  282.45
Integra numbers beginning with: O101.50
Recommended Use: Commercial/industrial use
Restrictions on Use: No information available

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2. HAZARDS IDENTIFICATION

OSHA Classification:
Skin Corrosion/Irritation  2  Causes skin irritation.
Eye Damage/Irritation  2B  Causes eye irritation.

Precautionary Statements
Prevention:
Wash thoroughly after handling.
Wear protective gloves.

Response
If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice, attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice, attention.
Specific treatment (see first aid section on this label)
Take off contaminated clothing and wash it before reuse.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
</tr>
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<tr>
<td>Oleic acid</td>
<td>9-Octadecenoic acid</td>
<td>00112-80-1</td>
<td>100</td>
</tr>
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4. FIRST AID MEASURES

Inhalation: Remove person to fresh air.
Eye Contact: Flush eyes with plenty of water. Remove contact lenses, if present and easy to do. If irritation persists, seek medical attention.
Skin Contact: Wash with soap and water. Seek medical attention if irritation develops.
Ingestion: If conscious, rinse mouth and give victim large amounts of water. Seek medical attention.
Additional notes: Symptoms and effects include skin, eye irritation.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry chemical or alcohol foam. Water may be ineffective.
Special Equipment and Precautions: Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.
Specific Hazards: Fire conditions may liberate toxic and noxious fumes.
Hazardous combustion products: Oxides of carbon.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Prevent spread of spill. Absorb with sand or inert material. Sweep or scoop into a disposal container. Flush spill area with water.

7. HANDLING AND STORAGE

Incompatible Materials: Incompatible with strong oxidizers.
Storage and Handling: Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers tightly closed and protect them from physical damage. Protect from direct light and minimize contact with air.
Wash thoroughly after handling.
Wear protective gloves.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless to yellow-brown
Odor: Nearly odorless
Odor Threshold: Not available
pH: Not available
Melting/Freezing Point: 16 °C
Initial Boiling Point and Boiling Range: 286 °C
Flash Point: 189 °C
Evaporation Rate: Not available
Flammability: Not available
Flammable or Explosive Limits (% by volume in air) Upper: Not available Lower: Not available
Vapor Pressure: 1 mm Hg @176°C
Vapor Density: 0.9 g/cc
Relative Density: 9.7
Solubility: Insoluble in water
Partition Coefficient: n-octanol/water Not available
Auto-Ignition Temperature: 383 °C
Decomposition Temperature: Not available
Viscosity: Not available

10. STABILITY AND REACTIVITY

Reactivity: No information available
Stability: Stable
Possibility of Hazardous Reactions: Hazardous polymerization will not occur
Conditions to Avoid: Excessive heat and exposure to light. Exposure to air.
Incompatibles: Incompatible with strong oxidizers.
Decomposition Products: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Effects of Over Exposure:
Inhalation: None identified
Skin Contact: Contact may cause skin irritation.
Eye Contact: Contact may be irritating to the eyes.
Ingestion: None identified
Chronic Effects: None identified
Target Organs: None identified
Additional Effects: None identified
Reproductive Effects: None identified
Carcinogenicity: None identified

Toxicity Data:
Oleic acid LD50 (oral, rat) 74000 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Data: No information available
Terrestrial Toxicity Data: No information available

Persistence and degradability: No information available
Bioaccumulative potential: No information available
Mobility in soil: No information available
Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

14. TRANSPORTATION INFORMATION
This product is not a regulated material for domestic ground transporation.

Environmental hazards: No information available
Special precautions: No information available
Bulk transport: No information available

15. REGULATORY INFORMATION

Oleic acid is listed in the TSCA inventory.

16. OTHER INFORMATION

OSHA SDS #: 26025 rev 101 3/27/2015

NE = Not established, NA = Not applicable or Not available

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***** END OF SDS *****