MATERIAL SAFETY DATA SHEET

STEARIC ACID

1. PRODUCT NAME AND COMPANY IDENTIFICATION
Product Name: STEARIC ACID (VEGETABLE)
Product Use: Personal Care Formulations
Company Name: Natural Sourcing
Company Address: 341 Christian Street, Oxford, CT 06478, USA
Date Issued: 08/27/2009
Emergency Telephone Number: Chemtrec Tel: (800) 262–8200

2. COMPOSITION/INGREDIENT INFORMATION
Synonyms: Octadecanoic Acid
Chemical: Aliphatic Acid
Composition: %  CAS #  PEL/TLV  Hazard
Palmitic Acid: 53–58  57–10–3  None/None  None
Stearic Acid: 39–45  57–11–4  None/None  None
Myristic Acid: 3.0 Max  544–63–8  None/None  None
Lauric Acid: 1.0 Max  143–07–7  None/None  None
Arachidic Acid: 1.0 Max  506–30–9  None/None  None
SARA Hazard: None Noted (Section 313– Not Listed)
CAS #: 57–11–4

3. HAZARDS IDENTIFICATION
Eye Contact: This material produced only mild conjunctival erythema in 2 of 6 rabbits at the 24 and 48 hour readings. No other signs of irritation were observed. All signs of irritation had subsided at the 72 hour reading. If shipped in the molten form (approx. 180°F) hot stearic acid causes severe thermal burns to the eyes.
Skin Contact: No signs of irritation or corrosively at either intact or abraded sites on albino rabbit.
Ingestion: LD50: > 10g/kg (Rat) (Stearic and Palmitic Acids)
Inhalation: Unknown
Primary Irritation Index was 0.

75 mg of stearic acid applied intermittently to human skin over a 3-day period resulted in mild irritation. 500 mg of stearic acid applied to rabbit skin over a 24-hour period resulted in moderate irritation.

PEL: No OSHA PEL
TLV: No ACGIH TLV
4. FIRST AID MEASURES

Eyes: Flush eyes with cold water for at least 15 minutes. Do not rub eyes. Seek medical attention if irritation persists.

Skin: For thermal burns, flush with cold water and seek medical attention.

Ingestion: Call a physician or poison control center immediately.

Inhalation: If overcome by fumes remove from exposure and call a physician.

Medical Conditions Generally Aggravated by Exposure: None

5. FIRE FIGHTING MEASURES

Flash Point (Method Used): 196°C (385°F) Closed Cup

Auto Ignition Temperature: 395°C (743°F)

Flammable Limits

LEL: Not Established

UEL: Not Established

Special Firefighting Procedures: Water or foam may cause frothing when applied to flammable liquids having flash points above 212°F (100°C). The remark is included only as a precaution and does not mean that water or foam should not or could not be used in fighting fires in such liquids. The frothing may be quite violent and could endanger the life of the firefighter particularly when solid streams are directed into the hot burning liquid. On the other hand, water spray carefully applied has frequently been used with success in extinguishing such fires by causing the frothing to occur only on the surface and this foaming action blankets and extinguishes the fire. (NFPA 325M–1984).

Unusual Fire & Explosion Hazards: Firefighters should wear self-contained breathing apparatus in the positive pressure mode with a full facepiece when there is a possibility of exposure to smoke, fumes or hazardous decomposition products.

Special Comment: Stearic acid powder is a flammable dust. Concentrations as low as 0.017 oz/cu ft in air can burn and if ignited in a confined space can explode.

6. ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

Personal Precautions: Wear appropriate respiratory protection and protective clothing as described in section 8.

Environmental Precautions: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

Methods for Cleaning Up: Contain spill. Transfer to secure containers. Where necessary, absorb using absorbent media. In the event of an uncontrolled release of this material, the user should determine if the release is reportable under applicable laws and regulations.

Waste Disposal: All recovered material should be packed, labeled, transported, and disposed or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Avoid landfilling of liquids. Reclaim where possible.

7. HANDLING AND STORAGE

Handling
Safe Handling: Use with caution around heat, sparks, static electricity and open flames.

Storage Requirements for Storage Areas and Containers: Store in cool, dry well ventilated storage area. Do not store near heat or open flames.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Eye: Chemical safety goggles or face shield
Skin/Body: Gloves & Aprons should be worn to prevent prolonged or repeated skin contact.
Respiratory: Use in a well ventilated area. Recommended exposure limits (i.e., OSHA-PEL and ACGIH-TLV) have not been established for this material. Whether there is a need for respiratory protection under your conditions of handling of this material should be evaluated by a qualified health specialist.
Ventilation: A mechanical exhaust/ventilation or fume collection system is recommended if heating product to elevated temperatures.
Other: Evaluate need based on application.
Work/Hygiene Practice: N/A

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid Waxy Flakes or Pellets (May be shipped in molten state)
Color: White
Odor: Characteristic of wax, fatty
pH: N/A
Vapor Pressure (mm Hg.): 1.0 mm/Hg pressure at 180°C
Vapor Density (AIR = 1): N/A
Boiling Point: (760 mmHg) 386°C (726°F) (Decomposes)
Melting Point: 54.5–55.5°C
Specific Gravity: (25°C) 0.849
Evaporation Rate: N/A
Solubility in Water: Insoluble
Water Reactive: No

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions
Incompatibility (Materials to Avoid): Strong oxidizing agents and strong alkalies
Hazardous Decomposition or Byproducts: Decomposition may produce carbon monoxide and carbon dioxide.
Conditions to Avoid: Avoid storing near heat or open flames
Hazardous Polymerization: None Likely

11. TOXICOLOGICAL INFORMATION

Signs and Symptoms of Exposure: N/A
Threshold Limit Value: No OSHA PEL, No ACGIH TLV
Medical Conditions Generally Aggravated by Exposure: None
Irritancy: Ingestion: LD50: > 10g/kg (Rat) (Stearic and Palmitic Acids)

Skin: No signs of irritation or corrosively at either intact or abraded sites on albino rabbit.

Eyes: This material produced only mild conjunctival erythema in 2 of 6 rabbits at the 24 and 48 hour readings. No other signs of irritation were observed. All signs of irritation had subsided at the 72 hour reading. If shipped in the molten form (approx. 180°F) hot stearic acid causes severe thermal burns to the eyes.

Carcinogenicity: No Data
Reproductive Toxicity: No Data
Teratogenicity: No Data
Mutagenicity: No Data
Name of toxicologically synergistic products: N/A

12. ECOLOGICAL INFORMATION
Biodegradation: No Data
Fish Toxicity: No Data
Bacterial Toxicity: No Data

13. DISPOSAL CONSIDERATIONS
Waste Disposal Methods: Dispose of according to local, state and federal regulations.

14. TRANSPORT INFORMATION
DOT Classification: Not Regulated
Class/Division: 
Proper Shipping Name: NA 
Label: None

15. REGULATORY INFORMATION
Listed in TSCA Inventory

16. ADDITIONAL INFORMATION
This information is provided for documentation purposes only. This product is not considered hazardous.

The complete range of conditions or methods of use are beyond our control therefore we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate however, all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers.