MATERIAL SAFETY DATA SHEET

GLYCERIN 99.5%, USP

1. PRODUCT NAME AND COMPANY IDENTIFICATION

Product Name: GLYCERIN 99.5% - USP
Product Use: Personal Care Formulations
Company Name: Natural Sourcing
Company Address: 341 Christian Street, Oxford, CT 06478, USA
Date Issued: 2/4/2009
Emergency Telephone Number: Chemtrec Tel: (800) 262-8200

2. COMPOSITION/INGREDIENT INFORMATION

Ingredients:
- Glycerin: 95% Minimum, CAS NO: 56-81-5
- Water: 5% Maximum
Hazardous Components: None
CAS #: 8001-31-8

3. HAZARDS IDENTIFICATION

Emergency Overview: This product has been evaluated and does not require any hazard warning on the label under OSHA criteria. Low hazard for usual industrial or chemical handling by trained personnel.

Routes of Entry
- Eye Contact: May cause minor, transient irritation
- Skin Contact: A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.
- Ingestion: Single dose oral toxicity is low. Amounts ingested incidental to industrial handling are not likely to cause injury, however, ingestion of large amounts may cause injury. Signs and symptoms of excessive exposure may be central nervous system effects and increased blood sugar levels.
- Inhalation: Inhalation of fine mist may affect respiratory system.

4. FIRST AID MEASURES

Eyes: Immediately flush with plenty of water for at least 15 minutes. If redness, itching or burning sensation develops, have eyes examined and treated by medical personnel.
Skin: Wash with soap and flush with plenty of water.
Ingestion: DO NOT INDUCE VOMITING. Give one or two glasses of water to drink and refer to medical personnel or take directions from either a physician or a poison control center. Never give anything by mouth to an unconscious person.
Inhalation: Remove victim to fresh air. If a cough or other respiratory
Medical Conditions Generally Aggravated by Exposure: None Known

5. FIRE FIGHTING MEASURES

Flash Point (Method Used): 390 °F (199 °C) TCC
Auto-Ignition Temperature: 698 °F (370 °C)

Flammable Limits
LEL: Not Determined
UEL: Not Determined

Flammability Classification: Slight hazard. Material must be preheated before ignition will occur. (OSHA class IIIB)

Extinguishing Media: Water, Dry Chemical, Carbon Dioxide, Foam

Special Firefighting Procedures: Wear self-contained breathing apparatus equipped with a full face piece and operated in a pressure-demand, or other positive pressure, mode and approved protective clothing. Personnel without suitable respiratory protection must leave the area to prevent exposure to hazardous combustion gasses.

Unusual Fire & Explosion Hazards: Water or foam may cause frothing when applied to flammable liquids having flash points above 212 °F (100 °C). This remark is included only as a precaution and does not mean that water or foam should 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 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 frothing action blankets and extinguishes the fire.

Hazardous Decomposition Materials: Incomplete burning can product carbon monoxide and / or carbon dioxide and other toxic gases.

6. ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)

Methods for Cleaning Up: Contain material by diking the area around the spill. Absorb the spill using a suitable absorbent material, then shovel into recovery drums. If material is released into the environment, the user should determine whether the spill should be reported to the appropriate state and federal authorities.

7. HANDLING AND STORAGE

Handling Safe Handling: Avoid direct or prolonged contact with skin and eyes. Avoid breathing mist.

Storage Requirements for Storage Areas and Containers: Store in a cool, well-ventilated area in sealed containers. Do not store in open or unlabeled containers. Store away from strong oxidizing agents or combustible materials.

8. EXPOSURE CONTROL/PERSOAL PROTECTION

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material
handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance to the section entitled Disposal Considerations.

**Exposures Guidelines:**
Control airborne concentrations below the exposure guidelines. Wear the following to prevent skin contact: work pants, long sleeve work shirt, and work gloves. Where there is the danger of eye contact, wear splash proof goggles.

**Occupational Exposure Limits:**
- PEL TWA: 10 mg/m³ (glycerin mist-total dust)
- TWA: 5 mg/m³ (glycerin mist-respirable fraction)
- TLV TWA: 10 mg/m³ (glycerin mist)

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid, viscous</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg.)</td>
<td>&lt; 0.001 mmHg @ 25°C</td>
</tr>
<tr>
<td>Vapor Density (AIR = 1)</td>
<td>3.1</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>340 °F (171 °C)</td>
</tr>
<tr>
<td>Melting Point</td>
<td>NA</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>&gt;1.00</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

- **Stability:** This material is stable under normal conditions described in that section.
- **Incompatibility (Materials to Avoid):** Avoid chlorine, fluorine and other strong oxidizers as well as strong acids.
- **Conditions to Avoid:** Avoid excessive heat and open flames.
- **Hazardous Decomposition or Byproducts:**
  - Thermal decomposition released corrosive fumes of Acrolein.
  - Decomposition may result in carbon monoxide and carbon dioxide.

### 11. TOXICOLOGICAL INFORMATION

- **Eye irritation:** 126 mg of Glycerin applied to the eyes of rabbits in a Draze test resulted in mold irritation.
- **Skin Irritation:** Primary Irritation Index of Glycerin = 0.3. 500 mg of Glycerin applied to the skin of rabbits over a 24 hr. period resulted in moderate irritation.
- **Inhalation:** Nuisance particulates have been reported for glycerin mist.
- **Oral LD₅₀:** 12.6 g/kg (Rat); 4.1 g/kg (Mouse); 7.8 g/kg (Guinea Pig)
- **Dermal LD₅₀:** 10 g/kg (Rabbit)
- **Inhalation LC₅₀:** >0.57 mg/l (Rabbit)

### 12. ECOLOGICAL INFORMATION

No information
13. DISPOSAL CONSIDERATIONS
Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Consult state and local regulations regarding the proper disposal of this material.

14. TRANSPORT INFORMATION
US Department of Transportation: Not regulated.

15. REGULATORY INFORMATION
UNITED STATES (TSCA): All ingredients are on the TSCA Chemical Substance Inventory
DSL (Canadian Domestic Substance List): All ingredients are listed on the Canadian DSL
Health Hazards: None
WHMIS Classification: Non-controlled (Nonhazardous)
CERCLA and SARS Regulations (40 CFR 355, 370, and 372): This material contains the following chemicals subject to the reporting requirements of SARA 313:
No SARA 313 Chemicals for this product.
SARA 311 / 312 Hazard Categories: Immediate: NO
Delayed: NO
Fire: NO
Pressure: NO
Reactivity: NO
State Regulations: California Proposition 65: Not a Prop. 65 material

16. ADDITIONAL INFORMATION
HMIS Rating: NFPA Rating:
Health – 1 Health – 1
Flammability - 1 Flammability – 1
Reactivity - 0 Reactivity – 0

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.