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

1.1. Product Identifier
Product Form: Substance
Product Name: Glycerine 99.7% USP Kosher
CAS No: 56-81-5
Formula: C3H8O3/C3H5(OH)3
Synonyms: 1,2,3-Propanetriol; Glycerol; Glycerin

1.2. Intended Use of the Product
Use of the substance/mixture: NF Excipient

1.3. Name, Address, and Telephone of the Responsible Party
Company
Acme-Hardesty Co.
450 Sentry Parkway
Blue Bell, PA  19422
T 866-226-3834  T 215-591-3610
www.acme-hardesty.com

1.4. Emergency Telephone Number
Emergency Number : 800-424-9300
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture
Classification (GHS-US)
Not classified

2.2. Label Elements
GHS-US Labeling
Not applicable

2.3. Other Hazards
No additional information available

2.4. Unknown Acute Toxicity (GHS-US):
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>(CAS No) 56-81-5</td>
<td>99.7</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

3.2. Mixtures
Not applicable
Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures
First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area.
First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes.
First-aid Measures After Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/Injuries: None expected under normal conditions of use.

Symptoms/Injuries After Inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Symptoms/Injuries After Skin Contact: None under normal conditions.

Symptoms/Injuries After Eye Contact: Direct contact with the eyes is likely irritating.

Symptoms/Injuries After Ingestion: If a large quantity has been ingested: May cause nausea, vomiting, and diarrhea.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Water spray or fog, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Stable at ambient temperature and under normal conditions of use.

5.3. Advice for Firefighters

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Handle in accordance with good industrial hygiene and safety practice.

6.1.1. For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).


6.1.2. For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material, then place in suitable container.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do no eat, drink or smoke when using this product.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.


7.3. Specific End Use(s) NF Excipient

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters
Glycerine 99.7% USP Kosher

Safety Data Sheet
accordance with Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**Glycerin (56-81-5)**

### USA OSHA

**OSHA PEL (TWA) (mg/m³)**

5 mg/m³

### 8.2 Exposure Controls

**Personal Protective Equipment**

- Gloves. Safety glasses.

**Hand Protection**

- Wear chemically resistant protective gloves. The breakthrough time of the selected gloves must be greater than the intended use period.

**Eye Protection**

- Chemical goggles or safety glasses.

**Respiratory Protection**

- In case of inadequate ventilation wear respiratory protection.

**Other Information**

- When using, do not eat, drink or smoke.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

**Physical State**

- Liquid

**Appearance**

- Colorless. Viscous.

**Odor**

- Characteristic.

**Odor Threshold**

- No data available

**pH**

- No data available

**Relative Evaporation Rate (butylacetate=1)**

- No data available

**Melting Point**

- 18 °C (64.4°C)

**Freezing Point**

- No data available

**Boiling Point**

- 290 °C (554°F) (decomposition)

**Flash Point**

- 177 °C (350.6°F) Cleveland Open Cup

**Auto-ignition Temperature**

- 400 °C (752°F)

**Decomposition Temperature**

- No data available

**Flammability (solid, gas)**

- No data available

**Vapor Pressure**

- < 0.01 hPa

**Relative Vapor Density at 20 °C**

- No data available

**Relative Density**

- No data available

**Specific Gravity**

- 1.26 g/cm³

**Solubility**

- Fully miscible.

**Log Pow**

- No data available

**Log Kow**

- -1.76

**Viscosity, Kinematic**

- 1300 mPas @ 20 °C

**Viscosity, Dynamic**

- No data available

**Explosive Properties**

- No data available

**Oxidizing Properties**

- No data available

**Explosive Limits**

- Not applicable

### 9.2 Other Information

**VOC content**

- ≤ 0.5 %

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity

- Stable at ambient temperature and under normal conditions of use.

#### 10.2 Chemical Stability

- Product is stable.

#### 10.3 Possibility of Hazardous Reactions

- Hazardous polymerization will not occur.
Glycerine 99.7% USP Kosher
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.4 Conditions to Avoid: Direct sunlight. Extremely high or low temperatures.


10.6 Hazardous Decomposition Products: Under fire conditions this material may produce hazardous carbon dioxide (CO2), carbon monoxide (CO), various low molecular weight hydrocarbons, and smoke.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information On Toxicological Effects

Acute Toxicity: Not classified

Glycerin (56-81-5)
LD50 Dermal Rabbit: > 10 g/kg
LC50 Inhalation Rat (mg/l): > 570 mg/m³ (Exposure time: 1 h)
ATE (Oral): 12600.000 mg/kg

Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/Injuries After Skin Contact: None under normal conditions.
Symptoms/Injuries After Eye Contact: Direct contact with the eyes is likely irritating.
Symptoms/Injuries After Ingestion: If a large quantity has been ingested: May cause nausea, vomiting, and diarrhea.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Glycerin (56-81-5)
LC50 Fish 1: 51 (51 - 57) ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1: > 500 mg/l (Exposure time: 24 h - Species: Daphnia magna)

12.2 Persistence and Degradability

Glycerine 99.7% USP Kosher
Persistence and Degradability: The substance is biodegradable. Unlikely to persist.

12.3 Bioaccumulative Potential

Glycerine 99.7% USP Kosher
Log Pow: -1.76
Bioaccumulative Potential: Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

Glycerin (56-81-5)
BCF fish 1: (no bioaccumulation)
Log Pow: -1.76

12.4 Mobility in Soil: No additional information available

12.5 Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.
SECTION 14: TRANSPORT INFORMATION
In Accordance With ICAO/IATA/DOT/TDG
14.1. UN Number Not applicable
14.2. UN Proper Shipping Name Not regulated for transport.
14.3. Additional Information
Other information : No supplementary information available.
Transport by Sea Not regulated for transport.
Air Transport Not regulated for transport.

SECTION 15: REGULATORY INFORMATION
15.1 US Federal Regulations
Glycerin (56-81-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

| EPA TSCA Regulatory Flag | Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule. |

15.2 US State Regulations
Glycerin (56-81-5)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)
U.S. - Idaho - Occupational Exposure Limits - TWAs
U.S. - Massachusetts - Right To Know List
U.S. - Michigan - Occupational Exposure Limits - TWAs
U.S. - Minnesota - Hazardous Substance List
U.S. - Minnesota - Permissible Exposure Limits - TWAs
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 8-Hour
U.S. - Oregon - Permissible Exposure Limits - TWAs
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Tennessee - Occupational Exposure Limits - TWAs
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
U.S. - Vermont - Permissible Exposure Limits - TWAs
U.S. - Washington - Permissible Exposure Limits - STELs
U.S. - Washington - Permissible Exposure Limits - TWAs

SECTION 16: OTHER INFORMATION
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.
The data herein are based on our current knowledge and believed to be reliable. Acme-Hardesty Co., provides this information without any representation or warranty, expressed or implied, regarding its accuracy or correctness.

Users must make their own determination that handling, storage, use and disposal of the product in the anticipated manner is safe and appropriate. Because these actions of the user are out of our control, and may be beyond our knowledge, we do not assume responsibility and expressly disclaim liability for loss, damage, expense or any other claim arising out of or in any way connected with the handling, storage, use or disposal of the product or container.

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