Material Safety Data Sheet
Alcohol - Glycerin, 50% V/V

Section 1 - Chemical Product and Company Identification

MSDS Name:
Alcohol - Glycerin, 50% V/V

Catalog Numbers:
LC10565

Synonyms:

Company Identification:
LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:
(412) 826-5230

Emergency Phone Number:
(800) 424-9300

CHEMTREC Phone Number:
(800) 424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5</td>
<td>Glycerin</td>
<td>50</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</td>
<td>50</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Emergency Overview

Appearance: Colorless liquid.
Caution! Flammable liquid and vapor. Warning! May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Flash Point: > 73°F.

Target Organs: Eyes, Skin, respiratory system, central nervous system, liver, blood and reproductive system.

Potential Health Effects

Eye:
May cause eye irritation, Stinging, burning sensation, and lacrymation.

Skin:
May cause irritation and defatting.

Ingestion:
Ingestion can result in toxic intoxication, poisoning, headache, nausea, diarrhea and fever. Large doses can cause hemolysis, hemoglobinuria, hyperglycemia, glycosuria, renal failure, convulsions, narcosis, and paralysis.
Inhalation:
May cause central nervous system effects including vertigo, anxiety, depression, muscle incoordination, emotional instability, respiratory irritation, dizziness, weakness, fatigue, nausea, headache, unconsciousness, asphyxiation (effects of narcotic). May cause irritation and dehydration of mucous membranes.

Chronic:
Repeated or excessive exposure may result in respiratory irritation, cough, headache, dermatitis, conjunctivitis, with possible liver and kidney damage, weight loss, neurological disorders (tremors, amnesia, myocardial and circulatory failure).

Section 4 - First Aid Measures

Eyes:
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:
Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:
Give conscious victim 2-4 cupfuls of milk or water. Get medical aid at once. Give oxygen if respiration is depressed. Induce vomiting (touch finger to back of throat) keeping head lower than hips (prevent aspiration into lungs).

Inhalation:
Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
Vapors heavier than air, may travel considerable distance and flash back from source of ignition. Move container if possible, avoid breathing vapors or dust. Dangerous fire/negligible explosion hazard when exposed to heat or flame.

Extinguishing Media:
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:
No information found.

Flash Point:
> 73°F

NFPA Rating:
CAS# 56-81-5: Health – 1; flammability – 1; reactivity - 0.
CAS # 64-17-5 health-0; flammability-3; reactivity-0

Explosion Limits:
Lower: No information Upper: No information
Section 6 - Accidental Release Measures

**General Information:**
Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**
Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Keep out of sewers/drain.

Section 7 - Handling and Storage

**Handling:**
Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

**Storage:**
Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**
Provide local exhaust or general dilution ventilation.

**Exposure Limits:**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin</td>
<td>10 mg/m³ TWA</td>
<td>No established RELS see appendix D</td>
<td>15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)</td>
</tr>
<tr>
<td></td>
<td>1000 ppm TWA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>1000 ppm TWA; 1900 mg/m³ TWA</td>
<td>1000 ppm TWA; 1900 mg/m³ TWA</td>
<td></td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:**
Ethyl alcohol: 1000 ppm TWA; 1900 mg/m³ TWA; Glycerin: total dust: 10 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA

**Personal Protective Equipment**

**Eyes:**
Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

**Skin:**
Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**
Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**
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Section 9 - Physical and Chemical Properties

Physical State: Liquid
Color: Colorless
Odor: alcohol-like
pH: Neutral
Vapor Pressure: No information found.
Vapor Density: No information found.
Evaporation Rate: < ether
Viscosity: No information found.
Boiling Point: No information found.
Freezing/Melting Point: No information found.
Decomposition Temperature: No information found.
Solubility in water: Soluble.
Specific Gravity/Density: No information found.
Molecular Formula: No information found.
Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
Incompatible materials, excess heat.

Incompatibilities with Other Materials:
Strong oxidizing agents, alkali metals, nitric acid, perchloric acid, sulfuric acid, chlorine, hypochlorites, hydrochloric acid.

Hazardous Decomposition Products:
Oxides of carbon, formaldehyde, corrosive fumes of acrolein.

Hazardous Polymerization:
Has not been reported

Section 11 - Toxicological Information

RTECS:
CAS# 56-81-5: MA8050000.
CAS# 64-17-5: KQ6300000.

LD50/LC50:
CAS# 56-81-5:
Oral, rat: LD50 = >12600 mg/kg
Oral, mouse: LD50 = 4090 mg/kg
Oral, rabbit: LD50 = 27 g/kg
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CAS# 64-17-5:
- Inhalation, mouse: LC50 = 39 gm/m3/4H
- Inhalation, rat: LC50 = 20000 ppm/10H
- Oral, mouse: LD50 = 3450 mg/kg
- Oral, rabbit: LD50 = 6300 mg/kg
- Oral, rat: LD50 = 7060 mg/kg.

Carcinogenicity:
- CAS# 56-81-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
- CAS# 64-17-5
  - ACGIH: A4 - Not Classifiable as a Human Carcinogen
  - California: Not listed.
  - NIOSH: Not listed.
  - NTP: Not listed.
  - OSHA: Not listed.
  - IARC: Not listed.

Epidemiology:
- Toxicity: Reagent alcohol (90% ethanol, 5% methanol, 5% isopropanol) is considered an irritant/narcotic; mutagenic/-teratogenic data. Isopropanol manufactured by the strong acid process is listed in group 1 by IARC. Workers manufacturing isopropanol by this process showed increased sinus and laryngeal cancer. Glycerin is an eye, skin, and mucous membrane irritant.

Teratogenicity:
- No information found.

Reproductive:
- No information found.

Mutagenicity:
- No information found.

Neurotoxicity:
- No information found.

Section 12 - Ecological Information
No information found.

Section 13 - Disposal Considerations
Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Ethanol solution
Hazard Class: 3
UN Number: UN1170
Packing Group: PG III
Section 15 - Regulatory Information

US Federal

TSCA:
- CAS# 56-81-5 is listed on the TSCA Inventory.
- CAS# 64-17-5 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):
- None of the components are on this list.

CERCLA/SARA Section 313:
- None of the components are on this list.

OSHA - Highly Hazardous:
- None of the components are on this list.

US State

State Right to Know:
- Ethyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
- Glycerin can be found on the following state Right-to-Know lists: Pennsylvania, Minnesota, Massachusetts.

California Regulations:
- WARNING: This product contains Ethyl alcohol, a chemical known to the state of California to cause birth defects or other reproductive harm.

European/International Regulations

Canadian DSL/NDSL:
- CAS# 56-81-5 is listed on Canada's DSL List.
- CAS# 64-17-5 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:
- CAS# 56-81-5 is not listed on Canada's Ingredient Disclosure List.
- CAS# 64-17-5 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: September 28, 2007
Revision Date: None

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