Material Safety Data Sheet
Safranin, 1% alcoholic

Section 1 - Chemical Product and Company Identification

MSDS Name:
Safranin, 1% alcoholic

Catalog Numbers:
LC22360

Synonyms:
None.

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

Company Phone Number:
(412) 826-5230

Emergency Phone Number:
(412) 826-5230

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>64-17-5</td>
<td>Ethyl alcohol</td>
<td>90</td>
</tr>
<tr>
<td>67-56-1</td>
<td>Methyl alcohol</td>
<td>5</td>
</tr>
<tr>
<td>67-63-0</td>
<td>Isopropyl alcohol</td>
<td>5</td>
</tr>
<tr>
<td>477-73-6</td>
<td>Safranin</td>
<td>1</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: amber
May cause respiratory and digestive tract irritation. May cause eye and skin irritation. May cause central nervous system depression. Flash Point: 57°F.
Target Organs: No data available.

Potential Health Effects

Eye:
Irritation, burns, corneal damage
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Skin:
Reddening and irritation, burns occur at sufficient concentrations and time of contact.

Ingestion:
Ingestion can be fatal, symptoms of hypoglycemia, convulsions, shock, tachycardia, hypotension, vertigo, diplopia, pupil dilation. May cause confusion, incoordination vomiting, abdominal pain, uremia.

Inhalation:
May cause narcosis, CNS depression leading to respiratory/circulatory failure, pain, blindness, coma, kidney/liver damage, cyanosis, edema, death.

Chronic:
Weight loss, cirrhosis, gastroenteritis, amnesia, tremors, acute myopathy, muscular edema and degeneration occur from long term exposure. Respiratory irritation, headache, central nervous system depression (somnolence, lack of concentration). Dermatitis, conjunctivitis (with permanent or temporary visual impairimt), optic neuritis, pain and atrophy.

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. Cover burns with loose sterile non-medicated bandages.

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

Ingestion:
Get medical aid at once. Syrup of ipecac may be given promptly following ingestion. Remove alcohol by gastric lavage and emesis using tap water, warm water, or 3-5% sodium bicarbonate solution unless 2 or more hours have passed.

Inhalation:
Get medical aid at once. Give artificial respiration if necessary. Keep victim warm, at rest. Maintain airway, give oxygen (medical trained only), maintain blood pressure. Move victim to fresh air.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
Move container if possible, cool with fog or spray. Vapors heavier than air, may travel considerable distance and flash back from source of ignition. Vapor-air mixtures explosive above flash point. Avoid breathing vapors. Dangerous fire hazard when exposed to heat or flame.

Extinguishing Media:
In case of fire use water fog, dry chemical, carbon dioxide or alcohol type foam.

Autoignition Temperature:
Not applicable.

Flash Point:
57°F (13.89°C)

NFPA Rating:
CAS # 64-17-5 health-0; flammability-3; reactivity-0
CAS # 67-56-1 health-1; flammability-3; reactivity-0
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CAS # 67-63-0 health-1; flammability-3; reactivity-0  
CAS# 477-73-6: Not published.

Explosion Limits:  
Lower: 4.3%  
Upper: 19%

**Section 6 - Accidental Release Measures**

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

**Spills/Leaks:**  
Scoop material into suitable (plastic or glass) container, label for disposal. Shut off ignition source, avoid vapors. Isolate, ventilate spill area. Water may be used to reduce vapor hazard - keep out of sewers and drains, vapors explosive, may ignite. Absorb with sand, diatomaceous earth, or other suitable inert material.

**Section 7 - Handling and Storage**

**Handling:**  
Protect from heat and incompatible materials. Vapors may be explosive.

**Storage:**  
Store capped as a flammable liquid in safety cabinet or vault that is ventilated. Store capped in suitable containers protected from heat and ignition sources.

**Section 8 - Exposure Controls, Personal Protection**

**Engineering Controls:**  
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Provide local exhaust ventilation to meet OSHA exposure limits.

**Exposure Limits**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>1000 ppm TWA</td>
<td>1000 ppm TWA; 1900 mg/m3 TWA</td>
<td>1000 ppm TWA; 1900 mg/m3 TWA</td>
</tr>
<tr>
<td>Methyl alcohol</td>
<td>200 ppm TWA; 250 ppm STEL: skin - potential for cutaneous absorption (400 ppm)</td>
<td>200 ppm TWA; 260 mg/m3 TWA</td>
<td>200 ppm TWA; 260 mg/m3 TWA</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>TWA: (500 ppm) STEL</td>
<td>400 ppm TWA; 980 mg/m3 TWA</td>
<td>400 ppm TWA; 980 mg/m3 TWA</td>
</tr>
<tr>
<td>Safranin</td>
<td>None of the components are on this list.</td>
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</tr>
</tbody>
</table>

**OSHA Vacated PELs**  
Ethyl alcohol: 1000 ppm TWA; 1900 mg/m3 TWA  
Methyl alcohol: 200 ppm TWA; 260 mg/m3 TWA  
Isopropyl alcohol: 400 ppm TWA; 980 mg/m3 TWA  
Isopropyl alcohol: 400 ppm TWA; 980 mg/m3 TWA

**Personal Protective Equipment**

**Eyes:**  
Do not wear contact lenses when working with chemicals. Wear splash-proof safety goggles.
Skin:
Wear appropriate protective gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Section 9 - Physical and Chemical Properties

- **Physical State:** Clear liquid
- **Color:** amber
- **Odor:** alcohol-like
- **pH:** No information found.
- **Vapor Pressure:** 40 mm Hg @ 20°C
- **Vapor Density:** 1.6
- **Evaporation Rate:** No information found.
- **Viscosity:** No information found.
- **Boiling Point:** > 172°F (> 77.78°C)
- **Freezing/Melting Point:** <-172°F
- **Decomposition Temperature:** No information found.
- **Solubility in water:** Soluble.
- **Specific Gravity/Density:** 0.8
- **Molecular Formula:** mixture
- **Molecular Weight:** No information found.

Section 10 - Stability and Reactivity

**Chemical Stability:**
Stable under normal temperatures and pressures.

**Conditions to Avoid:**
Incompatible materials, ignition sources.

**Incompatibilities with Other Materials**

**Hazardous Decomposition Products**
Formaldehyde, toxic oxides of carbon.

**Hazardous Polymerization**
Will not occur.
Section 11 - Toxicological Information

RTECS:
- CAS# 64-17-5: KQ6300000.
- CAS# 67-56-1: PC1400000.
- CAS# 67-63-0: NT8050000.
- CAS# 477-73-6: SG1623000.

LD50/LC50:
- 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.
- CAS# 67-56-1:
  - Inhalation, rat: LC50 = 64000 ppm/4H
  - Oral, mouse: LD50 = 7300 mg/kg
  - Oral, rabbit: LD50 = 14200 mg/kg
  - Oral, rat: LD50 = 5628 mg/kg
  - Skin, rabbit: LD50 = 15800 mg/kg.
- CAS# 67-63-0:
  - Oral, mouse: LD50 = 3600 mg/kg
  - Oral, rabbit: LD50 = 6410 mg/kg
  - Oral, rat: LD50 = 5045 mg/kg
  - Skin, rabbit: LD50 = 12800 mg/kg.
- CAS# 477-73-6:

Carcinogenicity:
- 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.
- CAS# 67-56-1: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
- CAS# 67-63-0
  - ACGIH: Not listed.
  - California: Not listed.
  - NIOSH: Not listed.
  - NTP: Not listed.
  - OSHA: Not listed.
  - IARC: Group 3
- CAS# 477-73-6: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:
- Not classified by OSHA, IARC, or NTP. 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.

Teratogenicity:

Reproductive:

Mutagenicity:
- Mutagenic effects have occurred in animals (see RTECS)
Neurotoxicity

Section 12 - Ecological Information

Ecotoxicity:
No information found.

Environmental:
No data available.

Physical:
No data available.

Other:
None.

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 II

Section 15 - Regulatory Information

US Federal

TSCA
CAS# 64-17-5 is listed on the TSCA Inventory.
CAS# 67-56-1 is listed on the TSCA Inventory.
CAS# 67-63-0 is listed on the TSCA Inventory.
CAS# 477-73-6 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)
CAS# 67-56-1: final RQ = 5000 pounds (2270 kg)

CERCLA/SARA Section 313
This material contains Methyl alcohol (CAS# 67-56-1, 5%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
This material contains Isopropyl alcohol (CAS# 67-63-0, 5%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous
None of the components are on this list.
State Right to Know
Ethyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
Methyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
Isopropyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Florida, 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.
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European/International Regulations

Canadian DSL/NDSL
CAS# 64-17-5 is listed on Canada's DSL List.
CAS# 67-56-1 is listed on Canada's DSL List.
CAS# 67-63-0 is listed on Canada's DSL List.
CAS# 477-73-6 is listed on Canada's DSL List.

Canada Ingredient Disclosure List
CAS# 64-17-5 is listed on Canada's Ingredient Disclosure List.
CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.
CAS# 67-63-0 is listed on Canada's Ingredient Disclosure List.
CAS# 477-73-6 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: December 21, 1999
Revision Date: August 7, 2001

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