MATERIAL SAFETY DATA SHEET

EMERGENCY NUMBERS: CHEMTREC (800) 424-9300
MSDS or Product Information: 281-588-3000

SECTION I - IDENTIFICATION

PRODUCT: SPECIAL INDUSTRIAL SOLVENT SOF-672
SYNONYMS: Ethanol SOF 672 DF / Denatured Alcohol
CHEMICAL FAMILY: Alcohol
ID NO.: UN1170
DOT GUIDE NO.: 127

SECTION II - INGREDIENTS

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>APPROX %</th>
<th>TLV</th>
<th>CAS</th>
<th>NEPA</th>
<th>UN#</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>90.5</td>
<td>1000</td>
<td>64-17-5</td>
<td>0-3-0</td>
<td>1170</td>
</tr>
<tr>
<td>ISOPROPANOL</td>
<td>4.5</td>
<td>400</td>
<td>67-63-0</td>
<td>1-3-0</td>
<td>1219</td>
</tr>
<tr>
<td>PROPYL ACETATE</td>
<td>5.0</td>
<td>200</td>
<td>109-60-4</td>
<td>1-3-0</td>
<td>1276</td>
</tr>
</tbody>
</table>

PRECAUTIONARY LABEL STATEMENTS:

WARNING! FLAMMABLE
CAUSES EYE IRRITATION

Keep away from heat, sparks, and flames. Avoid contact with eyes. Keep container closed, and use with adequate ventilation. Wash thoroughly after handling.

FIRST AID: In case of contact immediately flush eyes with water for a minimum of 15 minutes. Call a physician.

FIRE: Use water spray, dry chemical, "alcohol" foam. Water may be ineffective in fighting the fire. Use water spray to keep fire-exposed containers cool.

Revised 2/27/02
SPILL: Eliminate all sources of ignitions. Use water spray to dilute spill to a non flammable mixture. Prevent run-off from entering drains, sewers, and streams.

SECTION III - PHYSICAL DATA

Appearance and Odor: Clear liquid - alcohol odor
Solubility in Water: Complete
Specific Gravity @ 60/60f (air): 0.79 (200pf) - 0.81 (190pf)
Boiling Point: 74 - 80
Vapor Pressure at 20C (mm Hg): ca 50
Evaporation Rate (n-butyl acetate = 1): ca 2
Percent Volatile by Volume: > 99
Vapor Density (Air = 1): ca 1.5

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point (TCC): 5 C
Autoignition Temperature (ASTM D 2155): ca 400C
Flammable Limits (UEL/LEL - %vol in air): 20.0/4.0

Extinguishing Agent: Water spray, dry chemicals, “alcohol” foam
Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Unusual Hazards: Flammable liquid, vapors are heavier than air and may cause ignition/flashback.

SECTION V - HEALTH HAZARD DATA

A. EXPOSURE LIMITS (in ppm)

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>ACGIH TLV TWA</th>
<th>ACGIH TLV STEL</th>
<th>OSHA SKIN</th>
<th>ACGIH PEL TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>1000</td>
<td>-</td>
<td>NO</td>
<td>1000</td>
</tr>
<tr>
<td>ISOPROPANOL</td>
<td>400</td>
<td>500</td>
<td>NO</td>
<td>400</td>
</tr>
<tr>
<td>PROPYLE ACETATE</td>
<td>200</td>
<td>250</td>
<td>NO</td>
<td>200</td>
</tr>
</tbody>
</table>

Revised 2/27/02
B. EXPOSURE EFFECTS

General: Prolonged exposure to excessive concentrations of ethanol may result in irritation of mucous membranes, headache, drowsiness, fatigue and narcosis. The other components are not expected to add significantly to the toxicity of the product.

Inhalation: High vapor concentrations may cause upper respiratory tract irritation and narcosis.

Eyes: Liquid or vapor may cause irritation.

Skin: No specific hazards are known.

C. FIRST AID

Inhalation: Remove from exposure, treat symptomatically and get medical help.

Eyes: Immediately flush with water for at least 15 minutes, and get medical attention if symptoms persist.

Ingestion: Do not induce vomiting unless directed by a poison control center or doctor. Seek medical attention.

D. ANIMAL TOXICITY

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>ACUTE ORAL LD 50 on rat</th>
<th>INHALATION LC 50 on rat</th>
<th>SKIN IRITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL</td>
<td>6.2 to 17.8 g/Kg</td>
<td>ca 16,000 ppm per 8 Hrs</td>
<td>Slight</td>
</tr>
<tr>
<td>ISOPROPANOL</td>
<td>5.8 g/Kg</td>
<td>12,000 ppm per 8 Hrs</td>
<td>Slight</td>
</tr>
<tr>
<td>PROPYL ACETATE 9400 mg/Kg</td>
<td>8000 ppm per 8 Hrs</td>
<td></td>
<td>Slight</td>
</tr>
</tbody>
</table>

SECTION VI - REACTIVITY DATA

Stability: Stable
Incompatibility: Oxidizing material can cause vigorous reaction
Decomposition: As with any organic material, combustion will produce carbon dioxide, and carbon monoxide
Polymerization: Will not occur

SECTION VII - PERSONAL PROTECTION AND CONTROL

A. RESPIRATORY PROTECTION

An appropriate NIOSH approved respirator for organic vapors should be worn.

B. VENTILATION

At least 10 air changes per hour are recommended for good room ventilation. Local exhaust if needed to control vapors.

C. SKIN AND EYE PROTECTION

Safety glasses should be worn in any type of industrial operation.

D. OTHER MEASURES

An eye bath and washing facilities should be available. Wash thoroughly after handling.

SECTION VIII - SPECIAL STORAGE AND HANDLING PRECAUTIONS

Material is classified as a Flammable Liquid. Keep away from heat, sparks, and open flames. Keep containers closed, using adequate ventilation.

Empty packages may contain residue, follow label warning even after packages have been emptied.

SECTION IX - SPILL, LEAK, AND DISPOSAL PRACTICES

SPILLS & LEAKS: Eliminate all ignition sources. Small spills may be collected with absorbent material. For large spills, use water spray to dilute spills to a non flammable mixture. Prevent any runoff from entering drains, sewers, or streams.
WASTE DISPOSAL: Mix with compatible chemical which is less combustible, and incinerate. Observe all federal, state, and local laws concerning health and environment.

SECTION X - ENVIRONMENTAL EFFECTS DATA

This product has not been tested for environmental effects. However, some laboratory test data, and published data are available for the major components of this product. This data has been used to provide the following estimate of environmental impact.

This product is expected to have a high biological oxygen demand, and is expected to cause significant oxygen depleting in aquatic system. It is expected to have a low potential to affect aquatic organisms and secondary waste treatment organisms. It is readily biodegradable, and is not likely to bioconcentrate. If diluted with large amounts of water, this product released directly, or indirectly into the environment is not expected to have a significant impact.

SECTION XI - TRANSPORTATION

DOT HAZARD CLASSIFICATION: Class 3 Flammable Liquid
DOT SHIPPING NAME: Ethanol Solutions
ID NUM: UN1170
EMERGENCY RESPONSE: 127

SECTION XII - OTHER REGULATORY REQUIREMENTS

Toxic Substance Control Act: This product is a mixture and each component is listed in the TSCA Inventory of Chemical Substances.

SARA TITLE III - Extremely Hazardous Substances

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS#</th>
<th>TPQ</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SARA TITLE III - Toxic Chemical Section 372 (SARA 313)
COMPONENT  CAS#  WT %
NONE

CERCLA - Comprehensive Environmental Response Compensation and Liability

COMPONENT  CAS#  WT%  RQ(LBS)
NONE

This material is listed in all states under the Right to Know Act.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees, and customers.