IDENTITY (As Used on Label and List)  
Vapo-Steril  
Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.  

Section I  
Manufacturer’s Name  
Barnstead|Thermolyne  
Emergency Telephone Number:  
1-800-424-9300 Chemtrec  
Address (Number, Street, City, State, and ZIP Code)  
2555 Kerper Boulevard  
Dubuque, IA 52001  
Date Prepared  
10/09/00  
Signature of Preparer (optional)  

Section II - Hazardous Ingredients/Identity Information  
Hazardous Components (CAS numbers)  
Ethanol (64-17-5)  
Methanol (67-56-1)*  
Formaldehyde (50-00-0)*  
Other Limits  
OSHA PEL  
1000 ppm  
200 ppm  
0.75 ppm  
ACGIH TLV  
1000 ppm  
200 ppm  
0.3 ppm  
Recommended % (by weight)  
None  
None < 4%  
0.5 ppm action  
% level  
72.38  
< 4%  
0.23  
*SARA Title III Section 313 reportable chemical  
NFPA HAZARD RATING:  
FLAMMABILITY  
3  
HEALTH  
3  
REACTIVITY  
0  

Section III - Physical/Chemical Characteristics  
Boiling Point  
188°F  
Specific Gravity \((H_2O) = 1\)  
0.830  
Vapor Pressure (mm Hg)  
50.0 mm Hg  
Melting Point  
N/A  
Vapor Density \((\text{AIR} = 1)\)  
1.59  
Evaporation Rate \((\text{Butyl Acetate} = 1)\)  
1.39  
Solubility in Water  
100% @ 20°C.  
Appearance and Odor  
Clear Liquid - pungent odor  

Section IV - Fire and Explosion Hazard Data  
Flash Point (Method Used)  
ASTM D93: 75°F.  
Flammable Limits  
For Ethyl Alcohol  
LEL 3.3%  
UEL 19%  
Extinguishing Media  
Class B Chemical Powder  
Special Fire Fighting Procedures  
None for small quantities.  
Unusual Fire and Explosion Hazards  
None for small quantities.
Section V - Reactivity Data

Stability

<table>
<thead>
<tr>
<th>Unstable</th>
<th>Stable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep away from sparks, flames, heat or other ignition sources.</td>
<td></td>
</tr>
</tbody>
</table>

Incompatibility (Materials to Avoid)

Concentrated Nitric & Sulfuric Acids, strong Oxidizing Agents.

Hazardous Decomposition or Byproducts

Burning can produce Carbon Monoxide and/or Carbon Dioxide.

Hazardous Polymerization

<table>
<thead>
<tr>
<th>May Occur</th>
<th>Will Not Occur</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Section VI - Health Hazard Data

Route(s) of Entry:

<table>
<thead>
<tr>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Eyes?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

Health Hazards (Acute and Chronic)

Acute - Causes eye damage and may cause skin and respiratory sensitization.

Chronic - Formaldehyde is a suspected carcinogen.

Carcinogenicity:

<table>
<thead>
<tr>
<th>NTP?</th>
<th>IARC Monographs?</th>
<th>OSHA Regulated?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

Signs and Symptoms of Exposure

Irritation to eye and skin.

Medical Conditions

Generally Aggravated by Exposure

None Known

Emergency and First Aid Procedures

Eyes: Immediately flush with large amount of water for 15 minutes. See a physician immediately. Skin Contact: Flush under running water for at least 15 minutes. Ingestion: Give large amount of water if person is conscious.

Section VII - Precautions for Safe Handling and Use

Steps To Be Taken in Case Material is Released or Spilled

Extinguish and do not turn on any ignition source. Flush small spills with water. Wear suitable protective equipment. Collect large spills for disposal.

Waste Disposal Method

Ignitable, should be disposed of as required by hazardous waste regulations.

Precautions to Be Taken in Handling and Storing

Keep away from heat or open flames.

Other Precautions

Store in a cool, dry area.

Section VIII - Additional Information

California Prop 65 Warning: This product contains formaldehyde, a chemical known to the State of California to cause cancer

Section IX - Control Measures

Respiratory Protection (Specify Type)

Use in a well ventilated area. Avoid inhalation of vapor.**

Ventilation

<table>
<thead>
<tr>
<th>Local Exhaust</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>See OSHA Requirement</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical (General)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Protective Gloves

Neoprene gloves recommended

Eye Protection

Safety glasses or goggles

Other Protective Clothing or Equipment

None

Work/Hygienic Practices

Employee information and training required.

** California State Department of Food and Agriculture has requested the following be included: Attention: Wear face shield when handling this product and when opening the door of the sterilizer after the treatment cycle.