Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard.
29 CFR 1910.1200 Standard must be
consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

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

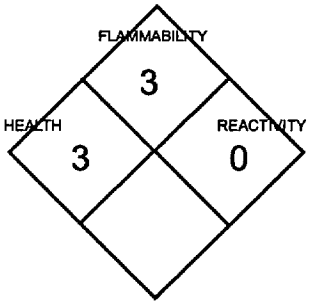
Manufacturer's Name **Barnstead|Thermolyne**	Emergency Telephone Number: **1-800-424-9300 Chemtrec** To be used only in the event of a chemical emergency involving a spill, leak, fire, exposure or accident involving this product.
Address (Number, Street, City, State, and ZIP Code)	Telephone Number for Information **(800) 553-0039**
2555 Kerper Boulevard	Date Prepared **10/09/00**
Dubuque, IA 52001	Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (CAS numbers)	OSHA PEL	ACGIH TLV	Other Limits Recommended	% *(by weight)*
Ethanol (64-17-5)	**1000 ppm**	**1000 ppm**	**None**	**72.38**
Methanol (67-56-1)*	**200 ppm**	**200 ppm**	**None**	**< 4%**
Formaldehyde (50-00-0)*	**0.75 ppm**	**0.3 ppm**	**0.5 ppm action level**	**0.23**

*SARA Title III Section 313 reportable chemical

NFPA HAZARD RATING:



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 (AIR = 1)	**1.59**	Evaporation Rate (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	Unstable		
	Stable	X	Keep away from sparks, flames, heat or other ignition sources.

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	May Occur		
	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? **YES** Skin? **YES** Eyes? **YES** Ingestion? **YES**

Health Hazards *(Acute and Chronic)* **Acute - Causes eye damage and may cause skin and respiratory sensitization.**

Chronic - Formaldehyde is a suspected carcinogen.

Carcinogenicity: NTP? **YES** IARC Monographs? **YES** OSHA Regulated? **YES**

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	Local Exhaust	See OSHA Requirement	Special	Not applicable
	Mechanical (General)	Not applicable	Other	Not applicable

Protective Gloves **Neoprene gloves recommended** Eye Protection **Safety glasses or goggles**

Other Protective Clothing or Equipment **None**

Work/Hygenic 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.