1. PRODUCT DESCRIPTION

Product Name: Flagella Stain, Leifson
Product Code(s): 86-3191, 86-3193, 86-3195
Size: 25 mL, 120 mL, 500 mL
Chemical Name: Does not apply
CAS Number: Does not apply
Formula: Ethanol 33.0ml, Distilled H2O 67.0ml, Flagella Stain 1.9 g
Synonyms: Leifson Stain
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215

Chemical Information:
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Principle Hazardous Components:
- Ethanol (CAS# 64-17-5) 32%
- Methyl isobutyl ketone (CAS# 108-10-1) 1%
- Flagella Stain (CAS# 569-61-9) 2%

TLV and PEL units:
- OSHA-PEL Ethanol 1000 ppm (TWA)
- Methyl isobutyl ketone 100 ppm (TWA)
- ACGIH-TLV Ethanol 1000 ppm (TWA)
- Methyl isobutyl Ketone 50 ppm (TWA) 75ppm (STEL)

3. HAZARD IDENTIFICATION

Emergency Overview: Exposure may cause intoxication and irritation.
Potential Health Effects:
- Eyes: May cause irritation.
- Skin: May cause irritation.
- Ingestion: May cause gastrointestinal discomfort.
- Inhalation: May cause irritation to respiratory tract.

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
- Eyes: Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
- Skin: Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
- Ingestion: If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.
- Inhalation: Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES

Flash Point (Method Used): No data available.
NFPA Rating: None established
Extinguisher Media:
Use dry chemical, CO2 or appropriate foam.
MATERIAL SAFETY DATA SHEET

Revised: 16/07/04
FLAGELLA STAIN, LEIFSON Replaces: 16/07/04
CAROLINA BIOLOGICAL Printed: 20/05/08

Flammable Limits in Air % by Volume: No data available.
Autoignition Temperature: No data available.
Special Firefighting Procedures:
Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: None identified

6. SPILL OR LEAK PROCEDURES
Steps to be Taken in Case Material is Released or Spilled:
Ventilate area of spill. Eliminate all sources of ignition.
Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

7. SPECIAL PRECAUTIONS
Precautions to be Taken in Handling and Storing: Store away from oxidizers.
Keep away from heat, sparks and open flame. Do not take internally.
Completely denatured alcohol contains ingredients which render this product wholly unfit for beverage purposes; If taken internally will cause serious consequences to health.

8. SPECIAL PROTECTION INFORMATION
Respiratory Protection(Specify Type):

9. PHYSICAL DATA
Molecular Weight: No data available.
Melting Point: No data available.
Boiling Point: No data available.
Vapor Pressure: No data available.
Vapor Density(Air=1): No data available.
Specific Gravity(H2O=1): No data available.
Percent Volatile by Volume: 98
Evaporation Rate(H2O=1): No data available.
Solubility in Water: 100%
Appearance and Odor: Fruity odor with varying color.

10. REACTIVITY DATA
Stability: Unstable
Conditions to Avoid: heat, sparks, and open flame
Incompatibility(Materials to Avoid): Oxidizers
Hazardous Decomposition Products: No data available.
Hazardous Polymerization: Will not occur

11. TOXICITY DATA
Toxicity Data: No data available.
Effects of Overexposure:
Acute: See section 3
Chronic: No data available.
Conditions Aggravated by Overexposure: No data available.
Target Organs: No data available.
Primary Route(s) of Entry: No data available.

12. ECOLOGICAL DATA
EPA Waste Numbers: None
13. DISPOSAL INFORMATION
Waste Disposal Methods: Dispose in accordance with all applicable Federal,
State and Local regulations.
Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION
Description: Flammable liquids, n.o.s. (ethanol, methyl isobutyl ketone),
3, UN1993, III
***25 mL bottle is a small quantity exception.***

15. REGULATORY INFORMATION
EPA TSCA Status: On TSCA Inventory
Hazard Category for SARA Section 311/312 Reporting: Acute Chronic

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<th>Product or Components</th>
<th>SARA EHS Sec. 302</th>
<th>SARA Sec. 313 Chemicals TPQ</th>
<th>CERCLA Sec. 103 Name</th>
<th>Chemical List</th>
<th>RCRA RQ lbs.</th>
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16. ADDITIONAL INFORMATION
The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary
ACGIH.......American Conference of Governmental Industrial Hygienists
CAS Number..Chemical Abstracts Service Number
CERCLA.......Comprehensive Environmental Response, Compensation, and Liability Act
DOT.........U.S. Department of Transportation
IARC.......International Agency of Research on Cancer
mppcf......million particles per cubic foot
N/A........Not Available
NTP........National Toxicology Program
OSHA.......Occupational Safety and Health Administration
PEL........Permissible Exposure Limit
ppm........parts per million
RCRA.......Resource Conservation and Recovery Act
SARA.......Superfund Amendments and Reauthorization Act
TLV........Threshold Limit Value
TSCA.......Toxic Substances Control Act