MATERIAL SAFETY DATA SHEET #MSA3F1% (HEC Formula)

PLANIT SAFE™ 1% (HEC) AFFF SUBSTITUTE TEST LIQUID
Also Used as Super Concentrate to Produce 3% & 6% Test Liquids

Section 1. CHEMICAL PRODUCT/ COMPANY IDENTIFICATION

Material Identification

Product: PLANIT SAFE 1% Test Liquid
Synonyms: Test Liquid
CAS No.: Mixture – No single CAS No. applicable

Company Identification

Manufacturer:
Vector Fire Technology, Inc.
47 Sarahs Way
Coatesville, PA 19320

Phone: 610-466-1717
Fax: 610-466-1718

Section 2. COMPOSITION/ INFORMATION OF INGREDIENTS

Components

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Potassium Chloride</td>
<td>7447-40-7</td>
</tr>
<tr>
<td>Sodium Benzoate</td>
<td>532-32-1</td>
</tr>
<tr>
<td>Hydroxyethylcellulose</td>
<td>9004-62-0</td>
</tr>
</tbody>
</table>
Section 3. HAZARDS IDENTIFICATION

Potential Health Effects

Inhalation
Vapors are minimal at room temperature. If product is heated or sprayed as an aerosol, airborne material may cause respiratory irritation.

Skin Contact
Contact with liquid may cause irritation or dermatitis due to removal of oils from the skin.

Eye Contact
Contact with liquid may cause eye irritation.

Ingestion
Not a hazard in normal industrial use. Small amounts swallowed during normal handling operations are not likely to cause injury; swallowing large amounts may cause injury or irritation.

Additional Health Effects
Existing eye or skin sensitivity may be aggravated by exposure.

Carcinogenicity Information
No data available.

Section 4. FIRST AID MEASURES

Inhalation
No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of airborne aerosol mists, remove to fresh air. Seek medical attention if effects occur.

Skin Contact
In case of skin contact, wash off with flowing water or shower. Launder clothing before re-use.

Eye Contact
In case of eye contact, flush eyes promptly with water for 15 minutes. Retract eyelid often to ensure thorough rinsing. Contact physician if irritation persists.

Ingestion
Swallowing less than an ounce is not expected to cause significant harm. For larger amounts do not induce vomiting. Give milk or water. Never administer anything by mouth to an unconscious person. Seek medical attention.
Section 5. FIRE FIGHTING MEASURES

Flammable Properties
Flash Point – Not Applicable

Fire and Explosion Hazards
Avoid contact with water reactive materials, burning metals and electrically energized equipment.

Extinguishing Media
Product is not an extinguishing media. Use media appropriate for surrounding materials.

Special Fire Fighting Instructions
None

Section 6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)
NOTE: Review FIRE FIGHTING MEASURES and HANDLING (Personnel) sections before proceeding with clean-up. Use appropriate Personal Protective Equipment during clean-up.

Accidental Release Measures

Super Concentrate or Test Liquid Solution
Stop flow if possible. Dilute with water to meet existing water quality standards. Flush area with water. Exercise caution, surfaces may be slippery. Disposal should be made in accordance with federal, state and local regulations.

Section 7. HANDLING AND STORAGE

Handling (Personnel)
Avoid contact with eyes, skin, or clothing. Avoid ingestion or inhalation. Rinse skin and eyes thoroughly in case of contact. Review HAZARDS and FIRST AID sections.

Storage
Recommended storage environment is between 35°F (2°C) and 120°F (49°C). Store product in original shipping container or tanks designed for product storage.
Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls
Special ventilation is not required.

Personal Protective Equipment

Respiratory
Recommended exposure limits (OSHA-PEL and ACGIH-TLV) have not been determined for this material. The need for respiratory protection should be evaluated by a qualified health specialist.

Protective Clothing
Rubber or PVC gloves recommended.

Eye Protection
Safety glasses, face shield, or chemical splash goggles must be worn when possibility exists for eye contact. Contact lenses should not be worn. Eye wash facilities are recommended.

Other Hygienic Practices
Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before re-use.

Exposure Guidelines
Not Available
Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point: Not applicable
Vapor Pressure: Not applicable
Vapor Density: Not applicable
Melting Point: Not applicable
Evaporation Rate: <1 (Butyl Acetate = 1.0)
Solubility in Water: 100%

pH: 6.8 - 8.0
Specific Gravity: 1.024 @ 20ºC
Odor: Bland
Form: Liquid
Color: Clear

Section 10. STABILITY AND REACTIVITY

Chemical Stability
Stable

Incompatibility, Materials to Avoid
Avoid use of product on burning metals, electrically-energized equipment and contact with water reactive materials.

Polymerization
Will not occur.
Section 11. TOXICOLOGICAL INFORMATION

Mammalian Toxicity

This product has not been tested as a whole for acute oral and inhalation toxicity, primary eye irritation, or primary skin irritation.

Section 12. ECOLOGICAL INFORMATION

Ecotoxicological Information Aquatic Toxicity (rev C 3/6/09)
The acute toxicity of Planit Safe 3% test liquid as a dilute solution has been studied and found to have a 96 hour LC\textsubscript{50} value for Oncorhyncchus mykiss (rainbow trout) of less than 100mg/L. There was no fish mortality after the 96 hour test duration. An LC\textsubscript{50} of less than 100mg/L is less than the regulatory threshold established for dangerous waste.

Environmental Fate

<table>
<thead>
<tr>
<th></th>
<th>1% Concentrate As Shipped (mg/l)</th>
<th>3% Concentrate Dilution of 1% (mg/l)</th>
<th>As Proportioned Stream with Water (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD-5 Day</td>
<td>2,154</td>
<td>658</td>
<td>18</td>
</tr>
<tr>
<td>COD</td>
<td>24,360</td>
<td>8,120</td>
<td>238 (rev A 4/15/04)</td>
</tr>
</tbody>
</table>

Section 13. DISPOSAL CONSIDERATIONS

**PLANIT SAFE** AFFF Test Liquid Concentrate, as sold, is not a RCRA- listed waste or hazardous waste as characterized by 40 CFR 261. However, State, and local requirements for waste disposal may be more restrictive or otherwise different from Federal regulations. Proper clean up and disposal of this material into drains, sewers, or waterways is not expected to cause an environmental impact, however, consult with state or local authorities having jurisdiction regarding the proper regulations, requirements, or concerns encompassed within your site disposal plan.

**PLANIT SAFE** AFFF Test Liquid Concentrate can be treated by waste water treatment facilities. Discharge into biological sewer treatment facilities may be done with prior approval. Specific concerns are high BOD load. Dilution will reduce BOC and COD factors proportionately. Low dosage flow rate to the treatment plant may be helpful. Disposal should be made in accordance with federal, state and local regulations.
Section 14. TRANSPORTATION INFORMATION

Shipping Information
Proper Shipping Name: Not a DOT Hazardous Substance
Hazard Class: Not Regulated
UN Number: None

Section 15. REGULATORY INFORMATION

U.S. Federal Regulations

Toxic Substances Control Act (TSCA)
All components of this product are listed in the TSCA inventory.

Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III

Section 302/304
There are no components of this material with known CAS numbers which are on the Extremely Hazardous Substances (EHS) list.

Section 311 & 312
This material does not contain any components subject to Section 311 & 312 reporting requirements.

Section 313
This material does not contain any components subject to Section 313 reporting requirements.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA)
This material does not contain any components which are subject to the reporting requirements of CERCLA.

OTHER REGULATORY INFORMATION
None

STATE REGULATIONS

PENNSYLVANIA RIGHT-TO-KNOW HAZARDOUS SUBSTANCES LIST

PA Hazardous Substances present at levels greater than 1%:
None
Section 16. OTHER INFORMATION

NFPA Rating
Health 0
Flammability O
Reactivity O

ADDITIONAL INFORMATION

Revision Summary
1/29/03 New Issue
4/15/04 Rev A
6/10/04 Rev B
3/6/09 Rev C

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