1. Product and Company Identification

Material name: JET-X 2.75%
Version #: 01
Revision date: 07-31-2010
CAS #: Mixture
Product Code: 1020-2-014 ANa
Product use: Fire extinguishing agent
Manufacturer / Importer / Supplier
Name: Tyco Fire Suppression and Building Products
Address: One Stanton Street
Marinette, WI 54143-2542
Phone: 715-735-7411
Internet: http://www.ansul.com
Emergency Phone Number: CHEMTREC 800-424-9300 or 703-527-3887

2. Hazards Identification

Emergency overview
WARNING! Combustible liquid and vapor. Causes skin and eye irritation. Keep out of reach of children. Prolonged exposure may cause chronic effects.

OSHA regulatory status
This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects
Routes of exposure
Eye contact. Skin contact. Inhalation. Ingestion.

Eyes
Do not get this material in contact with eyes.

Skin
Avoid contact with the skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Inhalation
Vapors may irritate mucous membranes. Do not breathe vapor.

Ingestion
Not a likely route of entry. Do not ingest.

Target organs
Eyes. RESPIRATORY SYSTEM. Skin. Central nervous system.

Chronic effects
Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Signs and symptoms

3. Composition / Information on Ingredients

Components | CAS # | Percent
--- | --- | ---
LAURYL ALCOHOL | 112-53-8 | 1 - 2.5
ETHANOL | 64-17-5 | 2.5 - 10
DIPROPYLENE GLYCOL | 25265-71-8 | 2.5 - 10
Other components below reportable levels | 80 - 90

4. First Aid Measures

First aid procedures
Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.

Skin contact
Wash off with warm water and soap. Get medical attention if irritation develops and persists.

Inhalation
Move to fresh air. For breathing difficulties, oxygen may be necessary. Get medical attention, if needed.
**Ingestion**

Rinse mouth. Do not induce vomiting without advice from poison control center. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

**Notes to physician**

Symptoms may be delayed.

**General advice**

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

---

**5. Fire Fighting Measures**

**Flammable properties**

No unusual fire or explosion hazards noted.

**Extinguishing media**

This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.

**Protection of firefighters**

Specific hazards arising from the chemical

None known.

**Specific methods**

None known.

**Hazardous combustion products**

May include oxides of nitrogen.

---

**6. Accidental Release Measures**

**Personal precautions**

Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Surfaces may become slippery after spillage. Keep upwind.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**Methods for containment**

Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.

**Methods for cleaning up**

Should not be released into the environment.

Large Spills: Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece).

Never return spills in original containers for re-use. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination.

---

**7. Handling and Storage**

**Handling**

Do not get this material in contact with eyes. Avoid contact with skin. Avoid prolonged exposure. Handle and open container with care.

**Storage**


---

**8. Exposure Controls / Personal Protection**

**Occupational exposure limits**

**ACGIH**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL (64-17-5)</td>
<td>STEL</td>
<td>1000.000 ppm</td>
</tr>
</tbody>
</table>

**U.S. - OSHA**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHANOL (64-17-5)</td>
<td>PEL</td>
<td>1900.0000 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000.0000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1900.0000 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000.0000 ppm</td>
</tr>
</tbody>
</table>
Personal protective equipment

Eye / face protection
Do not get in eyes. Wear approved chemical safety glasses or goggles where eye exposure is reasonably probable.

Skin protection
Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygiene considerations
When using do not smoke. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Form</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Green.</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild. Sweet.</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>pH</td>
<td>7 - 8.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>210.2 °F (99 °C)</td>
</tr>
<tr>
<td>Flash point</td>
<td>160 °F (71.1 °C)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limits in air, upper % by volume</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limits in air, lower % by volume</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.02</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>VOC</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

10. Chemical Stability & Reactivity Information

Chemical stability
Material is stable under normal conditions.

Conditions to avoid
None known.

Incompatible materials
Alkaline metals. Strong acids, alkalis and oxidizing agents.

Hazardous decomposition products

11. Toxicological Information

Toxicological information
The toxicity of this product has not been tested.

Toxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAURYL ALCOHOL (112-53-8)</td>
<td>Acute Dermal LD50 Guinea pig: &gt; 8310 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Inhalation LC50 Rat: &gt; 1.05 mg/l</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 12800 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Other LD50 Rat: 800 mg/kg</td>
</tr>
<tr>
<td>DIPROPYLENE GLYCOL (25265-71-8)</td>
<td>Acute Dermal LD50 Rabbit: 20 ml/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Guinea pig: 17.6 g/kg</td>
</tr>
</tbody>
</table>
### Components Test Results

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIPROPYLENE GLYCOL (25265-71-8)</td>
<td>Acute Oral LD50 Rat: 14.8 ml/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Other LD50 Dog: 11.79 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Other LD50 Mouse: 4600 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Other LD50 Rat: 5800 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Other LD50 Rat: 10.56 g/kg</td>
</tr>
<tr>
<td>ETHANOL (64-17-5)</td>
<td>Acute Inhalation LC50 Mouse: 0.039 mg/l 4.00 Hours</td>
</tr>
<tr>
<td></td>
<td>Acute Inhalation LC50 Rat: 20000 mg/l 10.00 Hours</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Dog: 5.5 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Guinea pig: 5.6 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Mouse: 3450 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 7060 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Oral LD50 Rat: 6.2 g/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Other LD50 Mouse: 933 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Acute Other LD50 Rat: 1440 mg/kg</td>
</tr>
</tbody>
</table>

### Local effects
Components of the product may be absorbed into the body through the skin. Blood disorder may occur after ingestion. Liver toxicity. Contact may irritate or burn eyes.

### Chronic effects
Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.

### Subchronic effects
Blood disorder may occur after prolonged inhalation. Blood disorder may occur after ingestion. Blood disorder may occur after prolonged skin contact.

### Carcinogenicity
Hazardous by OSHA criteria. Cancer Hazard.

#### ACGIH Carcinogens
- ETHANOL (CAS 64-17-5) A3 Confirmed animal carcinogen with unknown relevance to humans.

#### IARC Monographs. Overall Evaluation of Carcinogenicity
- ETHANOL (CAS 64-17-5) 1 Carcinogenic to humans.

#### US NTP Report on Carcinogens: Known carcinogen
- ETHANOL (CAS 64-17-5) Known carcinogen.

### Epidemiology
Hazardous by OSHA criteria.

### Neurological effects
Hazardous by OSHA criteria.

### Reproductive effects
Hazardous by OSHA criteria. Possible reproductive hazard. Can cause adverse reproductive effects - such as birth defects, miscarriages, or infertility.

### Further information
Reproductive toxicity. Symptoms may be delayed.

### 12. Ecological Information

#### Ecotoxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAURYL ALCOHOL (112-53-8)</td>
<td>LC50 Fathead minnow (Pimephales promelas): 1.01 mg/l 96.00 hours</td>
</tr>
<tr>
<td>ETHANOL (64-17-5)</td>
<td>EC50 Water flea (Daphnia magna): 7.7 - 11.2 mg/l 48.00 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Fathead minnow (Pimephales promelas): &gt; 100 mg/l 96.00 hours</td>
</tr>
</tbody>
</table>

### Ecotoxicity
This material is not expected to be harmful to aquatic life.

### Environmental effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

### Persistence and degradability
Not available.
13. Disposal Considerations

Disposal instructions

This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

Waste from residues / unused products

Dispose of in accordance with local regulations.

14. Transport Information

DOT

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

CERCLA (Superfund) reportable quantity

ETHANOL: 100.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Acute Health - Yes
Chronic Health - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance

No

Section 311 hazardous chemical

No

Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

ETHANOL (CAS 64-17-5) Listed: July 1, 1988 Carcinogenic.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

ETHANOL (CAS 64-17-5) Listed: October 1, 1987 Developmental toxin.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

DIPROPYLENE GLYCOL (CAS 25265-71-8) Listed.

16. Other Information

Further information

HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings
Health: 1*
Flammability: 2
Physical hazard: 0

NFPA ratings
Health: 1
Flammability: 2
Instability: 0

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Issue date
07-31-2010