JET-X 2.75%

1. Product and Company Identification

Material name: JET-X 2.75%

Version #: 01

Revision date: 01-08-2014

CAS #: Mixture

Product Code: 1020-2-014 ANa

Product use: Fire extinguishing agent

Manufacturer / Importer /
Supplier

Tyco Fire Protection Products

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


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

Potential health effects:

Routes of exposure:

- 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:

- Irritation of nose and throat.
- Irritation of eyes and mucous membranes.
- Rash. Skin irritation.

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
Suitable 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

<table>
<thead>
<tr>
<th>ACGIH 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>

<table>
<thead>
<tr>
<th>U.S. - OSHA 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>TWA</td>
<td>1900.0000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000.0000 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>
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<tr>
<td>Odor</td>
<td>Mild. Sweet.</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>pH</td>
<td>6 - 7</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>
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<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Not available.</td>
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<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, alkalies and oxidizing agents.


11. Toxicological Information

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

Toxicological data Components Test Results

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

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

Components Test Results
LAURYL ALCOHOL (112-53-8) LC50 Fathead minnow (Pimephales promelas): 1.01 mg/l 96.00 hours
ETHANOL (64-17-5) EC50 Water flea (Daphnia magna): 7.7 - 11.2 mg/l 48.00 hours
LC50 Fathead minnow (Pimephales promelas): > 100 mg/l 96.00 hours

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)

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Acute Health - Yes</th>
<th>Chronic Health - Yes</th>
<th>Fire Hazard - Yes</th>
<th>Pressure Hazard - No</th>
<th>Reactivity Hazard - No</th>
</tr>
</thead>
</table>

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**
01-08-2014