MATERIAL SAFETY DATA SHEET

by Tyco Fire Suppression & Building Products

JET-X 2.75%

Product Code: 1020-2-014 ANa Issue Date: 07-31-2010

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	Irritation of nose and throat. Irritation of eyes and mucous membranes. Defatting of the skin. 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	Store in cool place. Store in a well-ventilated place. Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value
ETHANOL (64-17-5)	STEL	1000.0000 ppm

U.S. - OSHA

Components	Type	Value
ETHANOL (64-17-5)	PEL	1900.0000 mg/m3 1000.0000 ppm
	TWA	1900.0000 mg/m3 1000.0000 ppm

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

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

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.
Hazardous decomposition products	Nitrogen oxides (NOx). Sulfur oxides. Carbon oxides.

11. Toxicological Information

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

Toxicological data

Components	Test Results
LAURYL ALCOHOL (112-53-8)	Acute Dermal LD50 Guinea pig: > 8310 mg/kg
	Acute Inhalation LC50 Rat: > 1.05 mg/l
	Acute Oral LD50 Rat: 12800 mg/kg
	Acute Other LD50 Rat: 800 mg/kg
DIPROPYLENE GLYCOL (25265-71-8)	Acute Dermal LD50 Rabbit: 20 ml/kg
	Acute Oral LD50 Guinea pig: 17.6 g/kg

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)

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

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

*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.
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