



MATERIAL SAFETY DATA SHEET

by Tyco Fire Suppression & Building Products

THUNDERSTORM F-601A, ATC 1x3 AR-AFFF

Product Code: 1011-2-034 ANa

Issue Date: 05-18-2011

1. Product and Company Identification

Material name	THUNDERSTORM F-601A, ATC 1x3 AR-AFFF
Version #	02
Revision date	05-18-2011
CAS #	Mixture
Product Code	1011-2-034 ANa
Product use	Fire extinguishing agent
Manufacturer / Importer / Supplier	
Name	Tyco Fire Protection 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! Causes skin and eye irritation.
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	Do not breathe vapor. May be irritating.
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
propylene glycol	57-55-6	1 - 2.5
Butyl Carbitol	112-34-5	10 - 20
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	In the event of fire, cool tanks with water spray.
Hazardous combustion products	May include oxides of nitrogen.

6. Accidental Release Measures

Personal precautions	Local authorities should be advised if significant spillages cannot be contained. Surfaces may become slippery after spillage.
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

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. Gel.
Color	Opaque. Purple
Odor	Mild. Sweet.
Physical state	Liquid.
pH	7.5 - 8.5
Melting point	Not available.
Freezing point	Not available.

Boiling point	> 210.2 °F (> 99 °C)
Flash point	> 192.2 °F (> 89 °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	1.025 - 1.035
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.
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Toxicological data

Components

Butyl Carbitol (112-34-5)

Test Results

Acute Dermal LD50 Rabbit: 2700 mg/kg
 Acute Oral LD50 Guinea pig: 2000 mg/kg
 Acute Oral LD50 Rabbit: 2200 mg/kg
 Acute Oral LD50 Rat: 6560 mg/kg
 Acute Other LD50 Mouse: 850 mg/kg
 Acute Other LD50 Rat: 500 mg/kg
 Acute Oral LD50 Dog: 19000 mg/kg
 Acute Oral LD50 Guinea pig: 18400 - 99999 mg/kg
 Acute Oral LD50 Mouse: 23900 - 31800 mg/kg
 Acute Oral LD50 Rabbit: 18000 mg/kg
 Acute Oral LD50 Rat: 30000 mg/kg
 Acute Other LD50 Mouse: 6630 mg/kg
 Acute Other LD50 Mouse: 17.3 g/kg
 Acute Other LD50 Rat: 6423 mg/kg
 Acute Other LD50 Rat: 14 g/kg

propylene glycol (57-55-6)

Local effects	Components of the product may be absorbed into the body through the skin. 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.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Epidemiology	Hazardous by OSHA criteria.
Neurological effects	Hazardous by OSHA criteria.

Further information Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Components

Test Results

Butyl Carbitol (112-34-5)

EC50 Algae: > 100 mg/l 96.00 Hours

EC50 Water flea (Daphnia magna): 3184 mg/l 24.00 hours

LC50 Bluegill (Lepomis macrochirus): 1300 mg/l 96.00 hours

propylene glycol (57-55-6)

EC50 Water flea (Daphnia magna): > 10000 mg/l 48.00 hours

LC50 Fathead minnow (Pimephales promelas): 710 mg/l 96.00 hours

Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment.

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.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Butyl Carbitol (CAS 112-34-5) 1.0 % N230

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Butyl Carbitol (CAS 112-34-5) Listed. N230

CERCLA (Superfund) reportable quantity

None

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)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
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.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Butyl Carbitol (CAS 112-34-5) 500 LBS

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Butyl Carbitol (CAS 112-34-5) Listed.
propylene glycol (CAS 57-55-6) Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 1*
Flammability: 0
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 0
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 05-18-2011

This data sheet contains changes from the previous version in section(s): Product and Company Identification: Product and Company Identification