



A UTC Fire & Security Company

MATERIAL SAFETY DATA SHEET

Universal Ultra AR-AFFF Concentrate (Fire Extinguishing Agent)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATIONS AND OF THE COMPANY UNDERTAKING

Product Name Universal Ultra AR-AFFF Concentrate (Fire Extinguishing Agent)
Other Trade Names Alcohol Resistant Aqueous Film Forming Foam
Product Description Fire Extinguishing Agent
Manufacturer/Supplier Badger Fire Protection
Address 944 Glenwood Station Lane, Suite 303
Charlottesville, VA 22901
USA
Phone Number (434)-964-3200
Chemtrec Number (800) 424-9300
(for emergencies only) (703) 527-3887 (International)
Revision Date: September 10, 2008
MSDS Date: January 17, 2007

Safety Data Sheet according to EC directive 2001/59/EC and OSHA's Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

EU Main Hazards
Non Hazardous Liquid

Routes of Entry

- Eye contact - Inhalation - Skin contact

Carcinogenic Status

Not considered carcinogenic by NTP, IARC, and OSHA.

Target Organs

- Respiratory System - Skin - Eye

Health Effects - Eyes

Contact for short periods of time may cause irritation.

Health Effects - Skin

Contact may cause moderate irritation. Repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.

Health Effects - Ingestion

Ingestion is not an expected route of exposure.

Health Effects - Inhalation

Inhalation is not an expected route of exposure during normal industrial use. Excessive inhalation exposure may cause irritation of respiratory tract, anesthetic or narcotic effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS#/Codes	Concentration	R Phrases	EU Classification
Water	7732-18-5 EC#2317912	89.5 - 98.3%	None	None



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS#/Codes	Concentration	R Phrases	EU Classification
(2-Methoxymethylethoxy)Propanol	34590-94-8 EC#2521042	0.5 - 2.5%	Xi	R36,R38
Synthetic Detergents	Proprietary	1.0 - 5.0%	None	None
Polysaccharide	11138-66-2 EC#2343942	0.1 - 1.5%	None	None
Fluoroalkyl Surfactant	Proprietary	0.1 - 1.5%	None	None

4. FIRST AID MEASURES

Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash affected area with soap and water. Obtain medical attention if irritation persists.

Ingestion

Dilute by drinking large quantities of water and obtain medical attention.

Inhalation

Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.

Advice to Physicians

Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Extinguishing Media

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a blaze. Use extinguishing agent appropriate to other materials involved. Keep pressurized extinguishers and surroundings cool with water spray as they may rupture or burst in the heat of a fire.

Unusual Fire and Explosion Hazards

Pressurized containers may explode in heat of fire.

Protective Equipment for Fire-Fighting

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Contain and absorb using appropriate inert material. Transfer into suitable containers for disposal. Prevent skin and eye contact. Wear appropriate protective equipment. Prevent the material from entering drains or watercourses.



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7. HANDLING AND STORAGE

Pressurized extinguishers should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll extinguishers. Do not drop extinguishers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the extinguisher or plastic container. Store pressurized extinguishers and plastic containers away from high heat sources. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Occupational exposure limits are listed below, if they exist.

(2-Methoxymethylethoxy)Propanol

ACGIH: TLV 100 ppm (606 mg/m³) 8h TWA. 150 ppm (909 mg/m³) STEL.

OSHA: PEL 100 ppm (600 mg/m³)

Can be absorbed through skin.

Engineering Control Measures

Use with adequate ventilation. There should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.

Respiratory Protection

Not normally required.

Hand Protection

Not normally needed when used as a portable fire extinguisher. Use gloves if irritation occurs.

Eye Protection

Chemical goggles or safety glasses with side shields.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Viscous Liquid
Color	Yellow
Odor	Mild, pleasant
pH	8.5
Specific Gravity	1.015 @ 25°C
Boiling Range/Point (°C/F)	Not applicable
Flash Point (PMCC) (°C/F)	Not Flammable
Solubility in Water	soluble
Vapor Density (Air = 1)	Not applicable
Vapor Pressure	Not applicable
Evaporation Rate (Butyl Acetate = 1)	<1

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.



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10. STABILITY AND REACTIVITY

Conditions to Avoid

- Heat - High temperatures - Exposure to direct sunlight

Materials to Avoid

- water reactive materials – burning metals – electronically energized equipment

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

- oxides of carbon

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Low order of acute toxicity.

Chronic Toxicity/Carcinogenicity

This product is not expected to cause long term adverse health effects.

Genotoxicity

This product is not expected to cause any mutagenic effects.

Reproductive/Developmental Toxicity

This product is not expected to cause adverse reproductive effects.

12. ECOLOGICAL INFORMATION

Mobility

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bio-accumulation

No relevant studies identified.

Ecotoxicity

No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Dispose of container in accordance with all applicable local and national regulations. Do not cut, puncture or weld on or near to the container.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data	Not regulated
UN Proper Shipping Name	Not regulated
UN Class	None
UN Number	None
UN Packaging Group	None



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15. REGULATORY INFORMATION

EU Label Information

Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC)

EU Hazard Symbol and Indication of Danger.

This preparation is not classified as dangerous.

R phrases

None

S phrases

None.

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

TSCA Listing

This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance Inventory.

EINECS Listing

All ingredients in this product are listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.

DSL/NDSL (Canadian) Listing

All ingredients in this product are listed on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL) or are exempt from listing.

WHMIS Classification

D2B

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

MA Right To Know Law

All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at or above the de minimus concentration include: magnesium nitrate (10377-60-3) <0.5% , (2-Methoxymethylethoxy)Propanol (34590-94-8) <3%

PA Right To Know Law

This product contains the following chemicals found on the Pennsylvania Hazardous Substance List: - (2-Methoxymethylethoxy)Propanol (34590-94-8) <3%

NJ Right To Know Law

This product contains the following chemicals found on the NJ Right To Know Hazardous Substance List: - (2-Methoxymethylethoxy)Propanol (34590-94-8) <3%, magnesium nitrate <0.5%

California Proposition 65

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

SARA Title III Sect. 302 (EHS)

This product does not contain any chemicals subject to SARA Title III Section 302.

SARA Title III Sect. 304

This product does not contain any chemicals subject to SARA Title III Section 304.

SARA Title III Sect. 311/312 Categorization

- Immediate (Acute) Health Hazard



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15. REGULATORY INFORMATION

SARA Title III Sect. 313

This product does not contain any chemicals that are listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Health - 1

NFPA Code for Flammability - 0

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - None

HMIS Ratings

HMIS Code for Health - 1

HMIS Code for Flammability - 0

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

Abbreviations

N/A: Denotes no applicable information found or available

CAS#: Chemical Abstracts Service Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

R: Risk

R36: Irritating to eyes.

R38: Irritating to skin.

S: Safety

Prepared By:

EnviroNet LLC.

The information contained herein is based on data believed to be accurate. However, no representation, warranty, or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for its own particular use. Badger Fire Protection assumes no responsibility for personal injury or property damage resulting from use, handling or from contact with this product.