



MATERIAL SAFETY DATA SHEET

AFFF Foam Solution (Fire Extinguishing Agent)

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

Product Name	AFFF Foam Solution (Fire Extinguishing Agent)
Other Trade Names	Kidde EN2 Foam Extinguishant
Product Description	Fire Extinguishing Agent
Manufacturer/Supplier	Kidde – Residential and Commercial
Address	1016 Corporate Park Drive Mebane, NC 27302 USA
Phone Number	(919) 563-5911 (919) 304-8200
Chemtrec Number (for emergencies only)	(800) 424-9300 (703) 527-3887 (International)
Revision Date:	February 9, 2009
MSDS Date:	February 7, 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
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Routes of Entry

- Eye contact - Inhalation - Skin contact

Carcinogenic Status

Not considered carcinogenic by NTP, IARC, and OSHA.

Target Organs

- Respiratory System - Skin - Eye – Central Nervous System – Liver – Kidney - Reproductive

Health Effects - Eyes

Contact for short periods of time may cause burning and irritation.

Health Effects - Skin

Contact may cause moderate irritation and allergic sensitization. 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 during normal use. If ingested, will be metabolized to toxic materials that will cause adverse effects to the kidneys, cardiopulmonary system and central nervous system. Ingestion may also cause liver damage and adverse effects to the fetus.

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.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS#/Codes	Concentration	R Phrases	EU Classification
Water	7732-18-5 EC#2317912	<100%	None	None
Alkyl Phosphate	Proprietary	1.9-2.6%	None	None
Anionic Surfactant	90583-28-1 EC#2922279	<0.07%	None	None
Monoethylene Glycol	107-21-1 EC#2034733	<22%	None	None
Butyldiglycolether	112-34-5 EC#2039616	0.5-0.9%	Xi	R36
Fluoroalkyl Surfactants	Proprietary	0.65-1.05%	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.

Ethylene Glycol

ACGIH TLV: 100 mg/m³ CEIL (C) Vapors Only

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	Liquid
Color	Straw Yellow
Odor	Mild, pleasant
Specific Gravity	1.06
Boiling Range/Point (°C/F)	Not Determined
Flash Point (PMCC) (°C/F)	Not Flammable
Solubility in Water	100% by Volume
Vapor Density (Air = 1)	Not Determined
Vapor Pressure	Not Determined
Evaporation Rate (Butyl Acetate = 1)	<1

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

- Heat - High temperatures - Exposure to direct sunlight



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10. STABILITY AND REACTIVITY

Materials to Avoid

- Strong oxidizing agents

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

- oxides of carbon

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Low order of acute toxicity.

Ethylene Glycol: LD50 Rat Oral 4700 mg/kg, LD50 Rabbit Dermal 9530 mg/kg

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

Oral administration of ethylene glycol to pregnant experimental animals has been shown to cause birth defects in the offspring. These effects were not seen when administered by dermal application or inhalation.

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 have not been verified for listing on the EPA Toxic Substance Control Act Chemical Substance Inventory or are exempt from listing.

EINECS Listing

This product contains ingredients that have not been verified for listing on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.

DSL/NDSL (Canadian) Listing

This product contains ingredients that have not been verified for listing 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 not been checked for inclusion on the Massachusetts Substance List (MSL). However, the following components that are present at or above the de minimus concentration include: ethylene glycol (107-21-1)

PA Right To Know Law

All components have not been checked for inclusion on the Pennsylvania Hazardous Substance List. However, the following components that are present at or above the de minimis concentration include: ethylene glycol (107-21-1) – butyldiglycoether (112-34-5)

NJ Right To Know Law

All components have not been checked for inclusion on the NJ Right To Know Hazardous Substance List. However, the following components that are present at or above the de minimis concentration include: ethylene glycol (107-21-1) – butyldiglycoether (112-34-5)

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

SARA Title III Sect. 313

All components have not been checked, however this product does not contain the following chemical that are listed in Section 313 at or above de minimis concentrations - ethylene glycol (107-21-1)



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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

Xi: Irritant

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. Kidde – Residential and Commercial assumes no responsibility for personal injury or property damage resulting from use, handling or from contact with this product.
