



TECHNICAL & SAFETY DATA SHEET

AFFF 3%

Product Information

Item	Description
Product Name	AFFF 3%
Product Code	FA-AFFF3-001
Product Type	Aqueous Film Forming Foam Concentrate
Mixing Ratio	3%
Fire Class	Class B
Suitable Fuels	Hydrocarbon Fuels
Expansion	Low Expansion
Shelf Life	10 Years
Standard	GHS Rev.7



1. PRODUCT DESCRIPTION

AFFF 3% is a premium quality **Aqueous Film Forming Foam Concentrate** specifically formulated for rapid extinguishment of **Class B hydrocarbon fuel fires**.

The concentrate is manufactured using high-performance fluorochemical surfactants, synthetic foaming agents, foam stabilizers, corrosion inhibitors, preservatives, and specialty additives to provide outstanding fire suppression performance.

Upon application, the foam rapidly spreads across the fuel surface, forming a thin aqueous film ahead of the foam blanket. This film suppresses flammable vapors, provides rapid knockdown, excellent burnback resistance, and minimizes the risk of re-ignition.

AFFF 3% is suitable for use with **fresh water or seawater** and is designed for **fixed, semi-fixed, mobile, industrial, marine, offshore, airport, petrochemical, and oil & gas firefighting systems**.



2. FEATURES

Rapid Knockdown Performance	✓	Excellent Burn Back Resistance	✓
Fast Film Formation	✓	Superior Vapor Suppression	✓
Excellent Fluidity	✓	Low Expansion Performance	✓
Compatible with Fresh Water	✓	Compatible with Sea Water	✓
Long Drain Time	✓	Suitable for Fixed Systems	✓
Suitable for Mobile Firefighting Equipment	✓	Suitable for Semi-Fixed Systems	✓
Excellent Fuel Shedding	✓	Low Corrosion Characteristics	✓
Freeze / Thaw Stable	✓	Long Shelf Life	✓
Biodegradable (Subject to Product Grade)	✓	Easy Proportioning	✓

3. APPLICATIONS

Recommended for

AFFF 3% is recommended for protecting Class B hydrocarbon fuel fire hazards including:

- Oil Refineries
- Petrochemical Plants
- Chemical Processing Facilities
- Tank Farms
- Fuel Storage Depots
- Airports & Aviation Fuel Facilities
- Marine & Offshore Platforms
- Military Installations
- Loading Racks
- Fuel Terminals
- Power Plants
- LNG & LPG Facilities
- Oil & Gas Production Facilities
- Warehouses storing flammable liquids





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Suitable for use with:

- Foam Chambers
- Foam Pourers
- Foam Monitors
- Foam Sprinkler Systems
- Foam Deluge Systems
- Foam Handlines
- Mobile Foam Units
- Foam Trailers
- Foam Vehicles

4. SUITABLE FIRES

- Recommended for Class B hydrocarbon fuel fires including:
 - Gasoline
 - Diesel Fuel
 - Crude Oil
 - Kerosene
 - Jet Fuel (Jet A-1)
 - Aviation Gasoline
 - Fuel Oil
 - Naphtha
 - Lubricating Oil
 - Mineral Oil
 - Transformer Oil
 - Hydrocarbon Solvents
- Not recommended for polar solvents unless Alcohol Resistant Foam (AR-AFFF) is specified.



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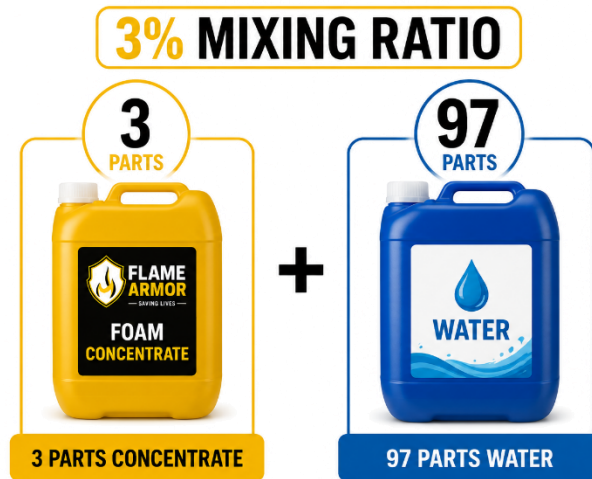
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5. PROPORTIONING

Recommended Mixing Ratio



Compatible with:

- **Balanced Pressure Systems**
- **Bladder Tank Systems**
- **Around-the-Pump Proportioners**
- **Inline Inductors**
- **Inline Proportioners**
- **Pump Proportioning Systems**



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6. APPLICATION METHODS

Suitable application methods include:

- **Foam Chamber Application**
- **Foam Monitor Application**
- **Foam Pourer Application**
- **Top Surface Application**
- **Gentle Surface Application**
- **Subsurface Injection (where approved)**
- **Mobile Foam Equipment**
- **Fixed Foam Systems**
- **Semi-Fixed Foam Systems**
- **Handline Nozzles**

Application should comply with:

- **NFPA 11**
- **EN 13565**
- **ICAO**
- **Local Fire Protection Regulations**





7. TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Appearance	Clear to Pale Yellow Liquid
Odor	Mild Characteristic
pH	6.5–8.5
Specific Gravity	1.00 – 1.08
Viscosity	<10 cSt @20°C
Pour Point	<-10°C
Expansion Ratio	≥7
25% Drain Time	≥150 sec
Sediment	None
Solubility	Complete

8. MATERIAL COMPATIBILITY



RECOMMENDED MATERIALS



304 Stainless Steel



316 Stainless Steel



HDPE



FRP



Epoxy



Vinyl Ester



Brass



Bronze



Gun Metal





9. STORAGE

Storage Temperature	1.7°C to 49°C
Store in original sealed containers.	Protect from direct sunlight.
Shelf Life	10 Years

Store in original sealed containers.

Protect from:

- Direct Sunlight
- Extreme Heat
- Freezing Conditions
- Contamination

10. PACKAGING



20 L Jerry Can



25 L Jerry Can



200 L Drum



1000 L IBC



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11. IDENTIFICATION (SDS)

Product Name	AFFF 3%
Manufacturer	FLAME ARMOR
Product Use	Fire Fighting Foam Concentrate
Emergency Telephone	+966590000689

12. HAZARD IDENTIFICATION

Not classified as hazardous under GHS.
May cause mild eye irritation.
May cause mild skin irritation.
Spilled product creates slippery surfaces.

13. COMPOSITION

Synthetic Foaming Agents
Fluorochemical Surfactants
Alcohol Resistant Polymer
Foam Stabilizers
Corrosion Inhibitors
Water
Preservatives

14. FIRST AID MEASURES

Eyes	Flush with water 15 minutes.
Skin	Wash with soap and water.
Inhalation	Fresh air.
Do not induce vomiting.	
Seek medical advice.	

15. FIRE FIGHTING MEASURES

Suitable Media
Water
Foam
Dry Chemical
CO₂
Product is non-flammable.



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16. ACCIDENTAL RELEASE

1. Contain spill.
2. Absorb with inert material.
3. Wash area thoroughly.
4. Prevent entry into drains.

17. HANDLING & STORAGE

1. Wear suitable PPE.
2. Avoid prolonged contact.
3. Keep container tightly closed.

18. EXPOSURE CONTROLS



Safety Glasses



Gloves



Protective Clothing



Safety Shoes

19. PHYSICAL & CHEMICAL DATA

(Repeated as official SDS values)

Appearance	Dark Brown Liquid
Specific Gravity	1.08–1.16
pH	6.5–8.5
Flash Point	Not Applicable



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20. STABILITY

- Stable under normal storage and handling conditions.
- Avoid contact with strong oxidizing agents.

21. TOXICOLOGY

- Low acute toxicity.
- May cause temporary eye and skin irritation upon prolonged contact.
- Inhalation of mists may cause mild respiratory irritation.

22. ECOLOGY

- Biodegradable under normal environmental conditions.
- Low toxicity to aquatic organisms.
- Avoid uncontrolled release into the environment.
- Prevent contamination of surface water, groundwater, and soil.

23. DISPOSAL CONSIDERATIONS

- Dispose of product and contaminated containers in accordance with applicable local, regional, and national regulations.
- Do not discharge into drains, watercourses, or the environment without proper treatment.

24. TRANSPORT

Item	Status
UN Number	Not Regulated
IMDG (International Maritime Dangerous Goods)	Not Regulated
IATA (International Air Transport Association)	Not Regulated
ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)	Not Regulated





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25. REGULATORY INFORMATION

Prepared according to

- GHS Revision 7
- OSHA HazCom
- ISO 11014

26. DISCLAIMER

The information contained herein is believed to be accurate and reliable. It is provided in good faith for guidance only. FLAME ARMOR makes no warranty, expressed or implied, regarding the completeness or accuracy of the information. Users are responsible for determining product suitability for their intended applications and complying with all applicable regulations.



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