ABERDEEN FOAM 1% AFFF-LF

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Low Freeze Aqueous Film-Forming Fire Fighting Foam

An internationally accredited, high quality C6 Low Freeze Low Expansion Aqueous Film-Forming Foam (AFFF-LF) concentrate.

Designed to quickly extinguish and secure Class B hydrocarbon fires of liquids such as crude oil, gasoline, aviation kerosene and fuel oil.

Formulated for use with either fresh or seawater.

Not suitable for use on fuels which are polar solvents and water miscible such as alcohols, ketones, aldehydes and ethers.

FIRE PERFORMANCE APPROVALS

Aberdeen Foam 1% AFFF-LF concentrate has been independently tested and is accredited to the following international standards:

- **UL 162**
- **ICAO Level B**
- **IMO MSC.1/Circ.1312**
- **EN 1568: 2018 Part 3**: Grade I+A in both sea and potable water

HOW IT WORKS

Aberdeen Foam 1% AFFF-LF effectively extinguishes and secures liquid hydrocarbon fires by the following actions:

- **Film-forming:** the foam forms an aqueous film across the surface of the fire to quickly cut off the oxygen supply and effectively knock down the flames.
- **Low surface tension:** as the liquid drains from the foam, the surface tension reduces to ensure the foam floats on top of the surface of the liquid fuel.
- **Foam expansion:** the foam cools the fuel's surface and creates a stable blanket to suppress the release of flammable vapours.
- **Resealing:** if the blanket is broken by personnel or equipment, the foam quickly reseals to minimise the risk of re-ignition.

UL LISTED FOAM LIQUID CONCENTRATE

EN 1568 Part 3: 2018

ICAO Level B

IMO MSC.1/CIRC 1312

1% AFFF-LF

PHYSICAL PROPERTIES

• Appearance	Clear pale straw liquid
• Specific gravity	1.100 - 1.020
• pH @ 20°C	7.0 - 8.0
• Surface tension @ 20°C mN/m	15.00 - 20.00
• Viscosity @ 20°C mPas	> 5.0
• Freezing point (°C)	< -18
• Lowest use temp. (°C)	-17.8
• Max. storage temp. (°C)	49
• Min. storage temp. (°C)	-17.8
• Expansion*	≥ 6.0
• 25% drainage (minutes)	≥ 3.0
• Freeze/thaw effect	None

* Foam quality will depend on the foam equipment used and the operating conditions. The above are tested in accordance with UK Defence Standard 42-40.

PROPORTIONING INFORMATION

- 1 part foam concentrate to 99 parts water

FOAMING PROPERTIES

Expansion properties will vary depending on factors including:

- Using salt or fresh water
- Water hardness
- Equipment characteristics
- Equipment flow rate

For example, aspirating devices will produce typical expansion ratios of between 6:1 and 10:1 and non-aspirating devices between 2:1 and 4:1.

Always check your equipment's operation manual for guidance.

APPLICATIONS

Aberdeen Foam 1% AFFF-LF concentrate provides quality protection wherever hydrocarbons present a fire risk:

- Offshore platforms and helidecks
- Petrochemical refining, processing and storage facilities
- Marine terminals, power stations and road / rail loading racks
- Rapid Intervention Vehicles and aircraft hangar systems

Produced AFFF-LF foams can also be used as wetting agents for combating Class A fires (i.e.tyres, paper, wood) and for providing a vapour suppression blanket on hydrocarbon spills.

PROPORTIONING EQUIPMENT

Readily proportioned with the following equipment:

- In-line inductors (fixed or portable)
- Balanced pressure variable flow proportioners
- Around the pump proportioners
- Bladder tank Balanced Pressure proportioning skid
- Handline, aspirating nozzles with fixed inductor pickup tube

DISCHARGE EQUIPMENT

Suitable for use with:

- Foam chambers
- Aspirating and non-aspirating sprinklers or spray nozzles
- Water fog nozzles for handlines and monitors
- Foam makers for use with either Floating Roof or Bund Protection systems

ENVIRONMENTAL IMPACT

- Contain no fluorosurfactants of chain length greater than C6
- Meets the requirements of EU 2017/1000
- Low toxicity to aquatic organisms
- Butyl carbitol free

EN 1568-3: 2018 CLASSIFICATION

Accredited to EN 1568-3: 2018 (Heptane) with the following results:

Induction Water	Extinguishment	Burnback Resistance
• Potable water	Class I+	Level A
• Seawater	Class I+	Level A

STORAGE AND SHELF LIFE

Best stored as supplied in original, unopened containers.
Suitable for storage in containers and tanks manufactured from:

- Stainless steel (Type 304L or 316L)
- High density cross-linked polyethylene
- FRP (vinyl ester epoxy resin only)

Aberdeen Foam 1% AFFF-LF concentrate is designed for use in cold climates and has low minimum use and storage temperatures.

If kept in the original manufacturer's supplied container and stored between -17.8°C and 49°C, a shelf life of at least 10 years can be expected. To prolong the shelf life of any AFFF, do not expose to temperature extremes and prevent contamination from foreign materials.

COMPATIBILITY

Our laboratory tests have shown Aberdeen Foam 1% AFFF-LF concentrate is compatible in all proportions with other high quality low freeze aqueous film forming foams and ABC and BC fire fighting powders. However, in order to maintain EPA 2010/15 compliancy, it is recommended that **C6 foams are not mixed with any other foams.**

As recommended by NFPA 11: 2021, we would advise that if mixing foam concentrates from different manufacturers a compatibility study is carried out beforehand. Different types of foam concentrates - for example AFFF and Protein Foams - should never be mixed.

For further information or advice on compatibility testing, please contact Oil Technics Limited.

DISPOSAL

Unused foam concentrate must be disposed of by incineration using an approved waste disposal company. Oil Technics are able to arrange for the collection and disposal of old stock: please contact us for further information.

Wherever possible, foam should be contained for disposal to prevent entering to the environment. Once used, foam should be disposed of as quickly as possible.

INSPECTION AND TESTING

As recommended by international foam standards NFPA 11: 2021 and BS EN 13565-2: 2018, Aberdeen Foam concentrates should be inspected and tested at least annually as part of your fire fighting foam maintenance programme.

Oil Technics Limited offers a worldwide foam testing service and inhouse foam testing training. For further details, please contact us or visit our website: foamtesting.com

TECHNICAL SERVICES AND SALES SUPPORT

For our UK customers, Aberdeen Foam is available 24/7 via our 24 hour emergency call out service: +44 (0) 1561 361515.

Aberdeen Foam is manufactured in Scotland under ISO 9001: 2015 and ISO 14001: 2015 accredited management systems and audited by UL every four months.

PACK SPECIFICATIONS

Capacity	20L	25L	200L	1000L	2700L Bulk tank
Dimensions (cm)	40 x 29.5 x 24.5	47 x 29.5 x 24.5	92 x 58 x 58	102 x 100 x 116	215 x 185 x 213
Empty weight (kg)	0.8	0.9	8	60	2000
Filled weight (kg)	22.2	27.6	222	1130	3890

These measurements are for reference purposes only and are intended as guidelines only. Oil Technics Ltd reserve the right to modify any specification at any time and without prior notice.

OILTECHNICS FIRE FIGHTING PRODUCTS

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