# ABERDEEN FOAM 6% AFFF



## Aqueous Film-Forming Fire Fighting Foam



## A high quality C6 Aqueous Film-Forming Foam (AFFF) concentrate. For use at 6% induction.

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.

#### **HOW IT WORKS**

Aberdeen Foam 6% AFFF 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.



### firefightingfoam.com

#### PHYSICAL PROPERTIES

AFFF

| Appearance                              | Clear pale straw liquid |  |
|---|-------------------------|--|
| Specific gravity                        | 1.000 - 1.020           |  |
| • pH @ 20°C                             | 7.8 - 8.2               |  |
| Surface tension @ 20°C N/m              | < 0.0200                |  |
| Viscosity @ 20°C mPas                   | < 10                    |  |
| <ul> <li>Freezing point (°C)</li> </ul> | < 0                     |  |
| • Lowest use temp. (°C)                 | 2                       |  |
| Expansion*                              | <u>≥</u> 6.0            |  |
| • 25% drainage (minutes)                | ≥ 3.0                   |  |
| • Max. storage temp. (°C)               | 49                      |  |
| • Min. storage temp. (°C)               | 2                       |  |
| 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**

· 6 parts foam concentrate to 94 parts water

#### FOAMING PROPERTIES

Expansion properties will vary depending on factors including:

- Using salt or fresh water
- 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.

Water hardness

Always check your equipment's operation manual for guidance.

#### **APPLICATIONS**

Aberdeen Foam 6% AFFF 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 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.

#### **DISCHARGE EQUIPMENT**

Suitable for use with:

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

#### **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

#### **ENVIRONMENTAL IMPACT**

- Contain no fluorosurfactants of chain length greater than C6
- Meets the requirements of EU 2017/1000
- Compliant with EPA 2010/15 PFOA Stewardship Programme
- Low toxicity to aquatic organisms
   Butyl carbitol free

#### 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)
- FRP (vinyl ester epoxy resin only)
- High density cross-linked polyethylene

If kept in the original manufacturer's supplied container and stored between 2°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 6% AFFF concentrate is compatible in all proportions with other high quality 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 Limited are able to arrange for the collection and disposal of old stock: 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, 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 independent 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.

#### 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 (Fire Fighting Products) Ltd reserve the right to modify any specification at any time and without prior notice.



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