An internationally accredited, high quality C6 Aqueous Film Forming Foam (AFFF) 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 3% AFFF-C6 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: 2008 Part 3 (Grade 1B in both potable water & seawater)

**HOW IT WORKS**

Aberdeen Foam 3% AFFF-C6 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.

**THE BACKGROUND TO C6 FIRE FIGHTING FOAMS**

Over the last 15+ years, the Fire Fighting Foam Industry has been working to understand how environmental pollution arising from the use of non-C6 fluorinated AFFF concentrates can be removed. Global concerns were raised in 2010 regarding toxic and environmentally persistent chemicals perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) being formed by the breakdown of fluorosurfactants with a carbon chain length of C8 or greater. Such fluorosurfactants are commonly used in the manufacture of fire fighting foams.

In the USA, the Environmental Protection Agency (EPA) established the 2010/15 PFOA Stewardship Programme. The purpose of this programme was to eliminate the manufacture of any fluorosurfactant which has the possibility to breakdown into PFOA or PFOS, i.e. fluorosurfactants with a carbon chain length of C8 or more, by the end of 2015.

For the fire fighting foam industry, this meant that all AFFF manufacturers were required to reformulate their foam concentrates using C6 fluorosurfactants.

**OUTCOMES**

In 2017, the US EPA and the European Chemical Agency (ECHA) approved fire fighting foams manufactured with fluorosurfactants using a maximum carbon chain of C6.

- In the USA, C6 technology is now approved by the EPA and the military as the way forward for AFFFs.
- In the EU, ECHA has exempted C6 technology and allowed C6 AFFFs to be sold within the EU.

European Regulation EU 2017/1000 further requires that, by 2020, fluorosurfactant manufacturers reduce the amount of impurities in their C6 fluorosurfactants to:

- less than 25 parts per billion for PFOA or its salts
- less than 1000 parts per billion for a combination of PFOA-related substances.

We are pleased to announce that our range of Aberdeen Foam AFFF-C6 concentrates already meet this regulation - and contain considerably fewer than the maximum quantities allowable under this regulation - three years before it comes into force!

For further information, please contact Oil Technics Ltd.
Aberdeen Foam 3% AFFF-C6 concentrate is readily proportioned with the following equipment:

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

**PACK SPECIFICATIONS**

Aberdeen Foam concentrates are available in the following sizes:

- **20L**
  - Dimensions (cm): 40 x 29.5 x 24.5
  - Empty weight (kg): 0.8
  - Filled weight (kg): 22.2

- **25L**
  - Dimensions (cm): 47 x 29.5 x 24.5
  - Empty weight (kg): 0.9
  - Filled weight (kg): 27.6

- **200L**
  - Dimensions (cm): 92 x 58 x 58
  - Empty weight (kg): 8
  - Filled weight (kg): 222

- **1000L**
  - Dimensions (cm): 102 x 100 x 116
  - Empty weight (kg): 60
  - Filled weight (kg): 1130

**Physical Properties**

- Appearance: Clear pale straw liquid
- Specific gravity: 1.02
- pH at 20°C: 7 - 8
- Viscosity at 20°C mPas: ~2
- Surface tension at 20°C N/m: 0.019
- Freezing point (°C): < -3
- Lowest use temp. (°C): 2
- Expansion*: > 6.0
- 25% drainage (minutes): ≥ 3.0
- Max. storage temp. (°C): 49
- Min. storage temp. (°C): 1.7
- BOD/COD: 28 days > 55%
- 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.

**Discharge Equipment**

Aberdeen Foam 3% AFFF-C6 concentrate is 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

**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
- RFP – vinyl ester epoxy resin only

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 3% AFFF-C6 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 compliance, it is recommended that C6 foams are not mixed with any other foams.

As recommended by NFPA 11, we 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**

Produced Aberdeen Foam 3% AFFF-C6 can be safely disposed of in biological waste water treatment systems.

**Inspection and Testing**

As recommended by NFPA11, BS:EN 13565-2:2009 and BS 5306, 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: www.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 and ISO 14001 accredited management systems and audited by UL every four months.