An high quality Newtonian Alcohol Resistant Aqueous Film-Forming Foam (AR-AFFF) concentrate. Designed to quickly extinguish and secure fires involving both:

- Class B hydrocarbon fuels such as crude oil, gasoline, aviation kerosene and fuel oil
- Polar solvents and water miscible liquids such as alcohols, ketones, aldehydes and ethers.

Formulated for use with either fresh or seawater, Aberdeen Foam 1x3% AR-AFFF-C6's versatile fire fighting capability reduces the need to stock different foam types.

FIRE PERFORMANCE APPROVALS
Aberdeen Foam 1x3% AR-AFFF-C6 concentrate has been independently tested and is accredited to the following international standards:

- EN 1568: 2008 Part 3
- EN 1568: 2008 Part 4

HOW IT WORKS
Aberdeen Foam 1x3% AR-AFFF-C6 effectively extinguishes and secures liquid hydrocarbon and polar solvent 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.

Membrane forming – in fires involving polar solvents, an insoluble polymer membrane is formed to protect the foam blanket from the solvent.

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, ie 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.
Expansion properties will vary depending on factors including:

- **FOAMING PROPERTIES**
  - Polar solvent fires: Suitable for use with:
  - Produced AR-AFFF foams can also be used as wetting agents for combating Class A fires (i.e. tyres, paper, wood) and for providing

- **APPLICATIONS**
  - Provides quality protection wherever hydrocarbons and/or polar solvents 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 AR-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.

- **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

**PACK SPECIFICATIONS**

Aberdeen Foam concentrates are available in the following sizes:

<table>
<thead>
<tr>
<th>Capacity</th>
<th>20L</th>
<th>25L</th>
<th>200L</th>
<th>1000L</th>
<th>Bulk tank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (cm)</td>
<td>40 x 29.5 x 24.5</td>
<td>47 x 29.5 x 24.5</td>
<td>92 x 58 x 58</td>
<td>102 x 100 x 116</td>
<td>TBC</td>
</tr>
<tr>
<td>Empty weight (kg)</td>
<td>0.8</td>
<td>0.9</td>
<td>8</td>
<td>60</td>
<td>TBC</td>
</tr>
<tr>
<td>Filled weight (kg)</td>
<td>22.2</td>
<td>27.6</td>
<td>222</td>
<td>1130</td>
<td>TBC</td>
</tr>
</tbody>
</table>

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.