



**AUXQUIMIA**  
Fire fighting products

**THE  
FOAM  
SOLUTION**



# AQUAFILM™ ARN-1

**PREMIUM Newtonian (Low Viscosity) AFFF-AR Foam Concentrate**

**Aquafilm™ ARN-1** is a low viscosity AFFF foam compounds to fight polar and no polar fuel fires. The resistance against the typical destructive effect of the polar liquids on foams is achieved thanks to the nature of the special surfactants used in the composition, avoiding the use of polymers which increase viscosity and make difficult the dosage at low temperatures. Aquafilm™ ARN solves all these issues you might encounter with higher viscosity products.

**Aquafilm™ ARN-1** uses very specific fluorinated and hydrocarbon surfactants in order to allow a good formation of an aqueous film on the surface of most hydrocarbon fuels, suppressing vapour leaks and preventing its contact with the oxygen and providing an excellent sealing on hot surfaces. Its formulation allows a great oil repellence, fluidity and burnback resistance.

**Aquafilm™ ARN-1** is a perfect tool to fight fires on storage tanks, bund, process areas, loading racks, power stations, airports or marine terminals amongst others.

**Aquafilm™ ARN** should be applied with low and medium expansion foam equipment (nozzles, monitors, foam chambers, etc.)

On hydrocarbon fires it can be applied also with non-aspirating devices (water spray nozzles and standard sprinklers). The foam has a very good resistance to all kind of chemicals. The dilution rate is 1% in fresh or sea water for use on all kind

of fuels: hydrocarbon and polar solvents. It may be proportioned with standard equipment (in-line inductors, bladder tanks, pumps, balanced pressure systems, etc.) and special purpose ones for AFFF agents (e.g. Hydrofoam nozzles). Its low viscosity facilitates the dosage at low temperatures, until -20°C.

**Aquafilm™ ARN is highly biodegradable** and it is manufactured according to "C6 fluorocompounds" fulfilling the 2010/2015 EPA PFOA Stewardship Program.

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## SPECIFICATIONS

| CONCENTRATE  |               |
|--|---------------|
| Specific gravity @ 20°C                              | 1.09          |
| pH @ 20°C  | 8.5—9         |
| Viscosity, cone and plate, mPa.s @ 20 °C @ 0 / -15°C | 23<br>47 / 88 |
| Freezing point, °C                                   | < -20         |
| Lowest temp. for using, °C                           | - 20          |

| FOAM SOLUTION  |      |
|--|------|
| Dilution rate  | 1%   |
| Surface tens. at 20°C, mN/m (Deminer-<br>alised water) | 17.0 |
| Interfacial tens. with cyclohexane at<br>20°C, mN/m    | 3.0  |
| Low Expansion Foam (EN 1568-3)                         |      |
| Foam Expansion Index                                   | 8    |
| 25% Drainage Time, min:s                               | 3:00 |

## PERFORMANCE

The foam achieves a very quick knock-down of fires, even with low application rates, and shows an excellent burn-back resistance. The product has **approval certifications** according to **EN-1568-3:2008 (class IB) and EN-1568-4:2008 (class IB)**.

The product is **UL Listed** with portable and fixed systems for hydrocarbons with type III application @ 0.10 gal/min•sq.ft and type II for alcohols @ 0.15 gal/min•sq.ft.

| Standard         | EN-1568-3:2008 |         | EN-1568-4:2008 |        | UL-162   |         |
|------------------|----------------|---------|----------------|--------|----------|---------|
|                  | Heptane        | Heptane | Acetone        | IPA    | Heptane  | IPA     |
| Fuel             | Heptane        | Heptane | Acetone        | IPA    | Heptane  | IPA     |
| Application      | Forceful       | Gentle  | Gentle         | Gentle | Type III | Type II |
| Dilution rate, % | 1              | 1       | 1              | 1      | 1        | 1       |
| Water            | fresh          | fresh   | fresh          | fresh  | fresh    | fresh   |
| Extinction       | 2:08           | 1:47    | 1:23           | 0:56   | 1:32     | 1:17    |
| Burnback 25%     | -              | 15:45   | 11:01          | 11:32  | Pass     | Pass    |
| Classification   | IB             |         | IB             |        | Listed   | Listed  |

EN 1568:  
2008 Parts 3&4



## PACKING

The product is supplied in 20 or 25 L PE prismatic containers, 200 L PE cylindrical drums and 1.000 L IBC containers.

## STORAGE

The concentrate should be stored at temperatures between -20° and +50°C, preferably in the original containers or in stainless steel or epoxy lined tanks. Avoid permanent contact with carbon steel, iron, copper alloys, aluminium, etc. Do not mix with other foam concentrates without a previous verification of compatibility.

## CAUTIONS

Foams should neither be used in contact with electrical equipment nor with chemical products that can react with water. It is recommended to avoid the contact of the foam concentrate with the skin. In case of eye splashes wash with plenty of water. In case of ingestion do not induce vomit, drink water and take medical advice.