

# AQUAFILM™ ARN-1

PREMIUM NEWTONIAN (LOW VISCOSITY)  
AFF-AR FOAM CONCENTRATE



## DESCRIPTION

**Aquafilm™ ARN-1** is a low viscosity AFF-AR foam compounds to fight polar and non-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-1 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 AFF-AR agents

(e.g. Hydrofoam nozzles). Its low viscosity facilitates the dosage at low temperatures, until -20°C.

**Aquafilm™ ARN-1** is highly biodegradable and it is manufactured according to "C6 fluorocompounds" fulfilling the 2010/2015 EPA PFOA Stewardship Program.

## SPECIFICATIONS

CONCENTRATE	
Specific gravity @ 20°C	1.09
pH @ 20°C	8.5–9
Viscosity, cone and plate, mPa.s	@ 20°C: 23 @ 0 / -15°C: 47 / 88
Freezing point, °C	< -20°C
Lowest temperature for use, °C	- 20°C

FOAM SOLUTION	
Dilution rate	1%
Surface tens. at 20°C, mN/m (Demineralised water)	17.0
Interfacial tens. with cyclohexane at 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
<b>Application</b>	Forceful	Gentle	Gentle	Gentle	Type III	Type II
<b>Dilution rate, %</b>	1	1	1	1	1	1
<b>Water</b>	fresh	fresh	fresh	fresh	fresh	fresh
<b>Extinction</b>	2:08	1:47	1:23	0:56	1:32	1:17
<b>Burnback 25%</b>	-	15:45	11:01	11:32	Pass	Pass
<b>Classification</b>	IB		IB		Listed	Listed

**EN 1568:**  
2008 Parts 3&4



### PACKAGING

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.



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