

# AUXQUIMIA® UNIPOL-FF™ 3/6

## FLUORINE FREE FOAM TO FIGHT FLAMMABLE LIQUID FIRES.



### DESCRIPTION

**UNIPOL-FF™ 3/6** is a foam concentrate formulated with a special combination of hydrocarbon surfactants and pseudoplastic polymers which gives excellent foaming, extinguish and burnback properties to its foam solutions.

It does not contain any organohalogenated compounds. It can be used to put out class B (liquids) and class A (solids) fires.

**UNIPOL-FF™ 3/6** has been designed to be used with low expansion nozzles and generate foams with high fluidity and slow drainage.

It is mainly used on hydrocarbon fires and could be even applied with forceful application, property until now only reserved for AFFF agents.

It can also be used on polar solvents, in this case with gentle application. The lack of fluorinated additives, which improves the anti-alcohol effect of the product, makes advisable to test it with different solvents as it may be necessary to increase the standard application rates.

Unlike the AFFF agents, it does not form an aqueous film on hydrocarbons because it does not contain fluorinated surfactants. The excellent extinguish times are possible thanks to its good foaming capacity, high water retention and great oleophobicity.

Due to the lack of this aqueous film, it is recommended to cover the fuel with a layer



of foam thick enough to prevent that the fuel surface could be exposed and reignited. Its good wetting ability and great water retention make it very suitable for extinguishing Class A fires (solid) with both spray and low expansion nozzles.

**UNIPOL-FF™ 3/6** dilution rate is 3% in fresh or sea water for extinguishing hydrocarbon fires and 6% for polar solvent (alcohols, ketones, ethers, esters, amines, etc.) fires or when medium expansion is required.

**UNIPOL-FF™ 3/6** is highly biodegradable. It performs effectively on fresh or sea water and 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).

### SPECIFICATIONS

| CONCENTRATE                                    |                                  |
|--|----------------------------------|
| Specific gravity @ 20°C                        | 1.045                            |
| pH @ 20°C                                      | 7.5±0.5                          |
| Viscosity, cone and plate,<br>375/75 s-1 mPa.s | @ 20°C 95/30<br>@ +1.7°C 115/375 |
| Freezing point, °C                             | < -5°C                           |
| Lowest temperature for use, °C                 | +1.7°C                           |

| FOAM SOLUTION  |        |        |
|--|--------|--------|
| Dilution rate  | 3%     | 6%     |
| Surface tens. at 20°C, mN/m<br>(Demineralised water) | 25.0   | 27.0   |
| Interfacial tens. with cyclohexane<br>at 20°C, mN/m  | 1.5    | 1.5    |
| Low Expansion Foam (EN 1568-3)                       |        |        |
| Foam Expansion Index                                 | 8.0    | 9.0    |
| 25% Drainage Time, min:s                             | >15:00 | >20:00 |

**PERFORMANCE**

UNIPOL-FF™3/6 has approval certification according to the **EN-1568-3:2008** (low expansion-hydrocarbons) and EN-1568-4:2008 (polar solvents). The product is certified under the **LASTFIRE protocol with the classification of “GOOD”** for the three nozzles

(Semiaspirating, Aspirating and System). The product is UL-162 listed with fixed systems. The product is listed with type II application for hydrocarbons @ 0.10 gal/ min-sq.ft and type II for polar solvents @ 0.15 gal/min-sq.ft.

| STANDARD         | EN-1568-3:2008 |        | EN-1568-4:2008 |       |
|------------------|----------------|--------|----------------|-------|
|                  | Heptane        |        | Acetone        | IPA   |
| Fuel             | Heptane        |        | Acetone        | IPA   |
| Application      | Forceful       | Gentle | Gentle         |       |
| Dilution rate, % | 3              | 3      | 6              | 6     |
| Water            | fresh          | fresh  | fresh          | fresh |
| Extinction       | 1:56           | 1:54   | 1:44           | 2:30  |
| Burnback 25%     | 9:30           | 18:20  | 17:20          | 17:23 |
| Classification   | 1B             | 1B     | 1A             | 11A   |



**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 -5° 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.



**Solutions That Save.**

**FOR MORE INFORMATION**

Contact any of our worldwide Perimeter Solutions Fire Safety offices or visit:  
[www.Perimeter-Solutions.com](http://www.Perimeter-Solutions.com)

**UNITED STATES**

1520 Brookfield Avenue  
Green Bay, WI 54313  
Tel: +1 (920) 593-9445  
[salesfoamusa@perimeter-solutions.com](mailto:salesfoamusa@perimeter-solutions.com)

**EMEA**

Polígono Industrial de Baiña, Parcela 23  
33682 Baiña-Mieres (Asturias) – Spain  
Tel: +34 985 24 29 45  
[salesfoamemea@perimeter-solutions.com](mailto:salesfoamemea@perimeter-solutions.com)

**ASIA PACIFIC**

3 Charles Street  
St Marys NSW 2760 – Australia  
Tel: +61 2 9673 5300  
[salesfoamapac@perimeter-solutions.com](mailto:salesfoamapac@perimeter-solutions.com)

[perimeter-solutions.com](http://perimeter-solutions.com)

**NOTICE** PERIMETER SOLUTIONS MAKES NO REPRESENTATIONS OR WARRANTIES AS TO THE COMPLETENESS OR ACCURACY OF THE INFORMATION INCLUDED HEREIN. THE INFORMATION CONTAINED HEREIN IS NOT INTENDED TO PROVIDE REGULATORY, LEGAL OR EXPERT ADVICE RELATING TO THE PRODUCTS, ITS APPLICATION OR USES. NOTHING CONTAINED HEREIN IS TO BE CONSTRUED AS A RECOMMENDATION TO USE ANY PRODUCT, PROCESS, EQUIPMENT OR FORMULATION IN CONFLICT WITH ANY INDUSTRIAL PROPERTY OR INTELLECTUAL PROPERTY RIGHTS, AND PERIMETER SOLUTIONS MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, THAT THE USE THEREOF WILL NOT INFRINGE ON ANY INDUSTRIAL PROPERTY OR INTELLECTUAL PROPERTY RIGHTS. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN.