

# AUXQUIMIA® UNIPOL-FF™ 1

**1% FLUORINE-FREE FOAM CONCENTRATE**



## DESCRIPTION

**UNIPOL-FF™ 1** is a 1% Newtonian fluorine-free foam concentrate formulated with a specialised blend of hydrocarbon surfactants. This formulation provides excellent foam quality with rapid control and extinguishment on Class B hydrocarbon flammable liquid fires and Class A deep-seated fires. This 1% low viscosity foam concentrate ensures consistent flow characteristics and reliable proportioning across a wide range of fire equipment and temperatures, making transitioning simpler. It contains no siloxanes, and no intentionally added per- and poly-fluoroalkyl substances (PFAS) compounds, including fluorinated surfactants. Making it an environmentally responsible alternative to traditional AFFF foam agents.

**UNIPOL-FF™ 1** has been specifically designed for effective suppression of hydrocarbon liquid fuel fires and is optimised for use with low expansion foam nozzles and discharge devices, including fixed and mobile equipment. Generating a foam blanket characterised by high fluidity, good spreadability and slow drainage, enabling effective fuel surface coverage, vapour suppression and minimising reignition risk.

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 due to its good foaming capacity, high water retention and great oleophobicity. As no aqueous film is formed, it is recommended to apply sufficient foam to establish a continuous, cohesive foam blanket, preventing fuel surface exposure, suppressing vapour release, minimising the risk of reignition, and ensuring long-term burnback resistance.

## APPLICATIONS

**UNIPOL-FF 1** is designed for use at a 1% proportioning rate with fresh and sea water for suppressing and extinguishing hydrocarbon Class B fires and deep-seated Class A fire, providing operational flexibility across a wide range of industries.

It can be used with low, medium, and high expansion foam equipment; is compatible with standard foam proportioning systems, foam pumps, and fixed system proportioners. UNIPOL-FF 1 can be used through various aspirated and non-aspirating devices, discharge devices such as handline nozzles and monitors, foam chambers and foam bund pourers, as well as foam/water sprinklers and CAFS (Compressed Air Foam Systems).

**UNIPOL-FF™ 1** is non-persistent and highly biodegradable, reducing environmental impact in comparison to conventional fluorinated foam concentrates.



## CERTIFICATIONS

**UNIPOL-FF 1** has been the subject of multiple large-scale fire testing programs. Results include:

- Tested and certified in European Standard EN-1568:2018 part 3 on hydrocarbon fuel with fresh water at 1% and 3%
  - EN1568:2018 - Part 3: IB (heptane at 1%)
  - EN1568:2018 - Part 3: 1+A (diesel at 3%)
- UL 162 Listed (Type II @ 0.10gpm-ft<sup>2</sup> / 4.1 lpm-m<sup>2</sup>)
- Meets UL Class A Wetting Agent ANSI/NFPA 18
- LASTFIRE batch-certified as GOOD/GOOD/ACCEPTABLE with 3 nozzles (semi, asp, system)
- GreenScreen Certified Silver®:



AUXQUIMIA UNIPOL-FF 1 is a fully GreenScreen Certified product-Silver Certification Level.

**USAGE RATE**

The proportioning rate is 1% on hydrocarbons class B fuels. It is used at 1% on Class A fuel fires.

TYPICAL PROPERTIES		TYPICAL FOAM PROPERTIES	
Specific gravity @ 20°C	1.020-1.060	Dilution rate	1%
pH @ 20°C	6.5-7.0	Surface tens. at 20°C, mN/m (demineralised water)	25.0
Viscosity, mPa.s/cPs at 375s-1* @ 20°C @ +1.7°C	4.5 9.0	Low Expansion Foam (UNI-86)	
Freezing point, °C	< -5°C	Foam Expansion Index	8.0
UL162 - Lowest temperature for use, °C	+ 1.7°C	25% Drainage Time, min:s	8:00

\* Brookfield cone/plate

**INSPECTION**

UNIPOL-FF™ 1 or a premix solution should be tested annually per National Fire Protection Association (NFPA 11) and EN-13565-2 standards. A sample of the foam is sent to the manufacturer or qualified third party lab to confirm physical properties and foam quality meet the specifications of the foam as originally supplied as per the requirements of NFPA 11 and EN-13565-2.

**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/MATERIAL COMPATIBILITY**

UNIPOL-FF™ 1 should be stored between 0°C and +50°C, preferably in the original containers. The foam concentrate has been successfully tested and verified under multiple temperature conditioning stability cycles at -30 °C to +60 °C, with no adverse effects. AUXQUIMIA UNIPOL-FF 3/3 is not affected by freeze-thaw conditions and will return to the original, effective state upon thawing without any degradation in performance. AUXQUIMIA UNIPOL-FF 1 is compatible with multiple materials of construction found in firefighting equipment. Do not mix with other foam concentrates without a previous verification of compatibility. For questions about material of construction compatibility, consult AUXQUIMIA technical services. The foam concentrate shelf life is maximized by proper storage conditions and maintenance. Factors affecting shelf life are wide temperature fluctuation, evaporation, dilution, and contamination by foreign materials. When stored in original containers or in manufacturer-recommended equipment within the specified temperature range, the shelf life of the product is rated to exceed 10 years.

**ENVIRONMENTAL**

UNIPOL-FF™ 1 is siloxane-free and contains no intentionally added PFAS, fluorosurfactants, fluoropolymers, organohalogens, PFCAs, PFOA and no PFOS in accordance with EU Directive. It presents no concern for persistence, bioaccumulation or toxic breakdown (no PBT profile).

**⚠ CAUTIONS**

Foams should not be used in contact with electrical equipment or with chemical products that can react with water. It is recommended to avoid contact of the foam concentrate with skin. In case of eye splashes, wash with plenty of water. In case of ingestion do not induce vomiting, drink water and seek medical advice.

Contains no intentionally added PFAS.

**FOR MORE INFORMATION**

Contact any of our worldwide Perimeter Solutions Fire Safety offices or visit:  
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