



FIRESTOPPER **XL (FFC)**

 **~TECHNOLOGY~**
Fire Fighting Catalyst (FFC)

DESCRIPTION:

- **CONCENTRATE** (*A High Kinetic Active Foamer*)
- **USAGE:** .25% to 100% (.1% For Training)
- **CLASS:** **A B D C/E & K/F** (E & F: EU)

The FFC, is a proprietary *Trade Secret Technology* and *formulations*, within the meaning of the *Uniform Trade Secret Act* (“UTSA”) *Cal. Civ. Code Sec. 3426*, Common law, *Business and Profession §17200* and all other applicable statutes.

This FFC, *Anti-Explosive* and *Bio-Remedial Technology*, combines multiple fire suppression and barrier production environments that deliver deep penetration with tremendous endothermic capability to fully extinguish the fire hazard.

The family of FFCs are the only **A, B, D, C/E K & F** fire-fighting product in the market that delivers faster knockdown, no flash back, faster cool down and fully reliable post fire security.

▲ CLASS A

Structure Fires: Quickest knockdown and extinguishment occurs when applying a direct exterior & interior attack method to the involved fire surfaces and ceilings.

The FFCs totally prevent the thermal inversion phenomenon unlike water & class A-foams that convert into steam, rising through the thermal column and then release the trapped hydrocarbons at the ceiling as they ignite, creating a deadly fire hazard.

The FFC’s retardant properties instantly penetrate deeply through the surface to the fiber, significantly reducing surface and area temperatures thus eliminating re-ignition.

▲ CLASS B & K/F

FFCs are fully effective on all hydrocarbon fuels, *Polar, Non-Polar, Fats and Vegetable Oils*, providing instant post fire retardant reliability and unmatched cooling capability. **No Emulsification** makes clean up fast, easy and *Non-Hazardous*.

▲ CLASS C/E

FFCs are the only available and reliable products to quickly and fully extinguish *Electric Transformer* fire hazards.

◆ **Class C/E listing is dependent on the hardware system. [FFCs are accredited at 100kv (US) and 35kv (EU) testing]**

▲ CLASS D (METALS)

(Lithium Or Sodium Metals Excluded)








Applied directly on to the metal fire source will rapidly contain, cool and extinguish the hazard.

FOREST & WILD FIRES

FIRESTOPPER XL (FFC) Application:

1. Airdrop: to secure fire parameters and prevent fire-crowning effect, etc.
2. Land base application: (a) stop fire progress (b) create firebreak (c) post fire cleanup
3. Pretreatment on structures to prevent ignition and to protect against oncoming fires, reducing property and collateral damage.
4. Batch mixing for better logistics access
5. Usable through all available equipment

◆ ADVANTAGES


-  *Non-toxic, non hazardous and non-corrosive*
-  *Biodegradable*
-  *Usable with all existing fire equipment*
-  *Anti-explosive properties*
-  *No unpleasant odor*
-  *Can be used with sea and brackish water*
-  *Can be used at .1% to 100% as needed*

◆ **ADVANTAGES** *Continued:*


- Great temperature reduction i.e. (>1500°F in < 40 sec.)
- Garments do not require detoxification
- Compatible with all other wet and dry chemicals & gasses
- Can be batch mixed and safely run through conventional pumps
- Eliminates the need for expensive foam generating equipment
- Superior performance on all Class A, B, C/E, D, and K/F fires
- Fully effective on marine fires and will adhere to surfaces such as fiberglass, etc.



ENVIRONMENTAL AND TOXICOLOGY TESTING

 FIRESTOPPER XL (FFC) was independently tested and found to be non-hazardous to fish. The mixture is not an eye or skin irritant and is non-toxic when tested according to the FHSA protocols. It is judged to pose no chronic health hazard. **Under European standards (OECD 301 part B), FFCs meet “green” qualification.** The FFCs require no special labeling or chronic health hazard warning statements and are in compliance with FHSA regulations, 16 CFR 1500 and California Proposition 65.

◆ **SPECIFICATION/APPLICATION**

 FIRESTOPPER XL (FFC) has a water-thin viscosity, making it ideal for fire suppression systems and manual applications to fight the broadest range of class A B C/E D (*Lithium or Sodium metals excluded*) & K/F fires.

In direct contrast to the older foam technologies, **FFCs Can Be Batch Mixed And Also Proportioned** from .1% to 100%. These proportions allow for greater flexibility in use, savings in time, storage, and capital.

APPLICATIONS:

<ul style="list-style-type: none">• Condensation Towers• Storage Tanks• Pipe Lines• LPG Transports• Tires & Rubber• Vehicles: Interiors And Exteriors• Flammable Metals• Military Applications• Elec. Transformers	<ul style="list-style-type: none">• Mines• Sprinkler Systems• Transportation• Warehouses• Docks & Spills• Structural• Forest & Wildfires• Aero Space• Cargo Holds• Drop-In Halon Replacement * <p style="text-align: right;"><i>& More...</i></p>
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**The FFC technology is the only viable, full spectrum fire fighting, “green” drop-in Halon replacement.*

 FIRESTOPPER XL (FFC) AT .1% IS IDEAL FOR ALL TRAINING DEMANDS. **(FOR ALL OTHER APPLICATIONS, END USER SHALL DETERMINE BEST USE PERCENTAGES)**

◆ **APPROVALS AND LISTINGS**

- MOD DEFSTAN 42-40, 42-42 (UK)
- ICAO
- FAA (pending)
- UL 162 (pending) SwRI®
- LASTFIRE
- EN 1568-3 IA, MPA, Dresden
- IMO (pending) MPA, Dresden
- Mfg. Standard, US Navy MIL F- 24385 F
- NPB 155 - 90 (Russian Fire Standard)
- NEN 6426 (Metals)
- MOD (U.K.), Drop-in Halon Replacement
- South African Defense Forces, (Halon drop-in Replacement)

◆ **STORAGE AND HANDLING**

Store in original sealed containers or poly tanks, stainless steel tanks and mild steel tanks. **(This FFC Should Never Be Stored In Aluminum Containers)** Storage tanks should be sealed to prevent evaporation. A food grade biocide may be added to maintain a premix for medium to long-term storage and use. **(TO BE DETERMINED BY THE END USER)**

~WARNINGS~

DO NOT EXCEED STORAGE

TEMPERATURES: -20° C to 48.8° C
(-4° F to 120° F)

Usable Range: -20° C to < 65.5° C
(-4° F to <150° F)

FFCs are compatible for use with all other existing commercial fire fighting products.

FFCs should be disposed in accordance with applicable regulations. Collect spills in plastic or steel containers.

DO NOT MIX WITH CHLORINE BLEACH (HYPOCHLORITE).

◆ TECHNICAL SPECIFICATIONS

pH @ 25° C: 7.2 – 7.9

S.G. @ 25° C: 1.100 – 1.200

Appearance: Water thin, slight hazy to clear liquid.

Color: Light amber to clear

KEEP CONTAINERS CLOSED TO PREVENT EVAPORATION.

~WARRANTY~

10 YEARS WHEN STORED WITHIN THE RECOMMENDED TEMPERATURE WHILE IN THE UNDAMAGED, FACTORY SEALED, ORIGINAL CONTAINER.

◆ ORDER & PACKAGING INFORMATION

Item #’s	XL-5	XL-55	XL-275	XL-330
	SIZE	SHIPPING WEIGHT <i>Approx. Wt. (lbs.)</i>	SHIPPING CUBE	
	20’ container (64 drums)	39,000	N/A	
	55-Gallon Drums	540	10.9 cu. Ft.	
	5-Gallon Drum	50	.99 cu. ft.	

◆ OTHER SHIPPING CONTAINERS AVAILABLE UPON REQUEST



DOT: Std: UN 31HA1/Y
275 gal capacity – 49.3 ft³
330 gal capacity – 57.2 ft³

◆ IMPORTANT NOTICE TO PURCHASER: ANY ALTERATION TO THE ORIGINAL FORMULA, EXCEPT FOR ITS INTENDED END USE, SHALL VOID ANY AND ALL WARRANTIES OF PRODUCT. The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: Sellers and manufacturer’s only obligations shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for its intended use, and user will assume all risk and liability whatsoever in connection therewith. NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE DIRECT, INCIDENTAL, OR CONSEQUENTIAL, ARISING OUT OF THE USE OF OR THE INABILITY TO USE THE PRODUCT.