



Fire Retardant

Description

IFP UNILIGHT FR is a cutting-edge, environmentally conscious, and highly effective foam concentrate designed specifically for combating Class A fires in forest and wildland scenarios. This non-corrosive, non-toxic, and biodegradable foam concentrate is formulated to enhance firefighting performance using potable or sea water. When mixed with water in proper proportions, IFP UNILIGHT FR significantly alters the water's physical properties. It reduces surface tension, enabling superior adhesion to vertical and horizontal surfaces, minimizing runoff, and maximizing heat absorption and fuel penetration.

Why Forest Fires Require Specialized Agents?

Forest fires, also known as wildfires, are among the most destructive natural disasters. They can spread rapidly, fueled by dry vegetation, wind, and heat, often consuming vast areas of forest and endangering ecosystems, wildlife, and human communities. Traditional firefighting methods, such as water application alone, often fall short due to the complex nature of forest fires. The primary challenges include:

High Heat Intensity: Forest fires generate extreme heat, which makes water alone insufficient for effective cooling.

Fuel Penetration: Thick vegetation, timber, and organic material create layers of fuel that are difficult to reach with conventional water streams.

Spread Control: Fires often spread vertically (tree canopies) and horizontally (ground vegetation), requiring a solution that can adhere to these surfaces without runoff.

Environmental Considerations: The need to preserve ecosystems and minimize chemical impact necessitates the use of biodegradable and non-toxic firefighting agents. Specialized agents like IFP UNILIGHT FR are essential because they address these challenges with precision and efficiency. By reducing water's surface tension, the foam allows for deeper penetration into dense fuels, enhanced heat absorption, and adherence to vertical and horizontal surfaces, effectively slowing down and extinguishing the fire. Fire Retardant is Fluorine Free concentrate and also free from PFOS/PFOA or its derivatives.

Properties

Appearance	Colourless Liquid
pH	7.0 - 8.0
Specific Gravity	1.00 to 1.05 gm/ml
Viscosity	Less than 10 cst
Pour Point	(-)5°C

Application

Wide Compatibility: Effective with potable, salt, brackish, and hard water. **Environmentally Friendly:** Biodegradable and safe for the ecosystem. **Broad Application:** Ideal for tackling forest fires, wildland fires, and other Class A combustible materials.

Easy Proportioning: Compatible with a wide range of standard firefighting equipment.

Application Range

The recommended mixing ratio of IFP UNILIGHT FR with water is 3.4:1.

Storage/Shelf Life

IFP UNILIGHT FR should be stored in plastic/plastic lined containers. For bulk storage, stainless steel or mild steel tanks with internal epoxy coating is recommended. If stored in original container between 0°C and 50°C, a storage life of 10-15 years can be expected. For a short period, maximum storage temperature up to + 65°C should not be harmful. IFP UNILIGHT FR can be defrozen / thawed without change in quality.

Environmental and Toxicological Information

IFP UNILIGHT CLASS-A is biodegradable, low toxic. However, as with any substance, care should be taken to prevent discharge from entering ground water, surface water, or storm drains. It can be treated in sewage treatment systems. Since facilities vary widely by location, disposal or discharge of IFP UNILIGHT CLASS-A concentrate or foam solution should be made in accordance with local government rules and regulations. For further details see IFP UNILIGHT CLASS-A Material Safety Data Sheet.

Ordering Information

Part Number	Description	Volume, m ³ (ft ³)	Weight (kg)
114010-01	Pails/Cans 20L (5.28 Gallon)	0.028 (0.99)	21.2
114010-02	Pails/Cans 30L (7.93 Gallon)	0.040 (1.40)	31.8
114010-03	Barrels 200L (52.84 Gallon)	0.318 (11.23)	209.2
114010-04	IBC Tote 1000L (264.2 Gallon)	1.386 (49.09)	1057

Container capacity and seaworthy packing also complied with customers' requirements

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