

## STP

### DESCRIPTION

BoldFoam STP is a synthetic foam based on hydrocarbonate surfactants, glycols and additives.

The Solutions of BoldFoam STP simulate an AFFF specifications with a similar expansion index and drainage. Nevertheless, due to the absence of fluorinated surfactants, its oleophobic character is much lower, so it is advised not to use in real fires.

It's suitable for using with fresh, sea or brackish water.

### APPLICATION

The physical characteristics of BoldFoam STP are very similar to the AFFF ones and it is a much more economic option.. That's why it is ideal to be used as a Training Foam, in Fire Brigades Training Facilities and other educational institutions that run anti-fire tests. It is not recommended to be used in real fires.

Due to its properties, the foam made with this concentrate can be used in training foams with traditional equipment of AFFF solutions, aspirants (fog/stream nozzles or sprinklers) and compressed-air-systems CAFS. That way, the firefighters get familiar with the normal equipment and can test and learn the different techniques of foam application.

This is about having a foam that does not contain any fluorinated surfactant, because they raise the price and they also have a worse degree of biodegradability in comparison with common surfactants. This way, we get a foam that is far easier to clean in the training area after the exercises, or when it has to be taken to the water treatment plant.

## TECHNICAL INFORMATION

### TRAINING FOAM

### DOSAGE

BoldFoam STP is used:

- 1% (1 parts of the product each 99 parts of water) for use in mid and high expansion.
- 0,3% (0,3 parts of product each 99,7 parts of water) for use in low expansion.

### TYPICAL PHYSICAL PROPERTIES OF THE CONCENTRATE

Appearance	Amber Liquid
Density, g/cm <sup>3</sup>	1,025 ± 0,01
pH	7,5 ± 0,5
Viscosity, 20°C, 375 s <sup>-1</sup>	≤ 30 mPa.s
Freezing Point	≤ -5°C

### FOAM SOLUTION PROPERTIES

Induction rate	0,3/1%
Surface Tension (0,3%, deionized water), mN/m	≤ 30
Low Expansion Rate (0,3%, fresh and sea water)	≥ 6
Mid Expansion Rate (1%, fresh and sea water)	≥ 100
High Expansion Rate (1%, fresh and sea water)	≥ 300

### COMPATIBILITY WITH OTHER CONCENTRATES

BoldFoam STP should not be mixed nor stored with another firefighting foams without contacting VS FOCUM previously.

The equipment used should be cleaned thoroughly after use, to avoid wrong results on the tests.

## **SHELF LIFE**

The factors affecting shelf life and stability for BoldFoam STP are the following ones: Temperatures exceeding the recommended limits or contamination due to unknown materials.

The Shelf Life of BoldFoam STP is about 20-25 years if the product is stored correctly according to the recommendations of VS FOCUM. .

The National Fire Protection Association (NFPA) recommends a yearly analysis of every firefighting foam.

## **STORAGE AND HANDLING**

BoldFoam concentrates should be stored in its original shipping containers or in other specially designed containers for this type of products (stainless steel or epoxy lined tanks)

Place the storage containers in an area at temperatures between -5°C and 50°C, correctly closed to avoid the evaporation of the concentrate.

If the product gets frozen during storage or transportation, it must be unfrost completely before use. It is recommended a mixing process of the product once unfrost.

## **ENVIRONMENTAL/TOXICOLOGICAL PROPERTIES**

### **1. Aquatic Toxicity**

BoldFoam STP does not need a large quantity of oxygen to be degraded, so it won't produce a drop in the oxygen concentration level in water.

BoldFoam STP's presence does not affect unfavorably nor the sensitive species, nor tolerant species on aquatic life.

### **2.-Biodegradability.**

Theoretically, biodegradability is measured with two different tests: BOD, which defines the amount of oxygen consumed by bacteria for the product degradation; and COD, amount of oxygen necessary for complete chemical oxidation. Biodegradability is the relation between BOD y COD: BOD/COD.

A concentrate is denominated as easily biodegradable when COD<sub>28</sub>/BOD is superior than 0,65. BoldFoam STP is way above this level, so it is easily biodegradable. A lot more biodegradable than an AFFF, by the way, due to the absence of fluorosurfactants in its formulation.

### **3.-Sewage Treatment Plant Treatability.**

Due to this training foam having a low biological oxygen demand (BOD) (about 10 times lower than an AFFF), it is not necessary an additional input of oxygen in the treatment plant.

BoldFoam STP is not specially toxic to the microbial populations normally found in treatment plants.

Compatible-with-treatment-plants-flora Anti-Foam agents can be used to reduce foaming in waste streams.

### **4.-Nutrient Loading.**

Algal Bloom is not expected as BoldFoam STP does not contain any nitrates or phosphates and the quantity of organic carbon is extremely low.

## **ORDERING INFORMATION**

BoldFoam products are available in plastic Pail (20, 25 ó 60 L), Drums (200 L), Containers (1.000 L) and Bulk.

