



## STHAMEX®-Performance 1% F-10 #9147



### SYNTHETIC FOAM CONCENTRATE FOR FIRE CLASSES A + B

STHAMEX®-Performance 1% F-10 is a newly developed, newtonian and low viscous, synthetic firefighting foam agent, for use with fresh water as low-, medium- and high expansion foam.

STHAMEX®-Performance 1% F-10 is easily and completely biodegradable and free of organic fluorine compounds<sup>1</sup>, preservatives and silicone compounds. Its classification in the lowest possible water hazard class (WGK) 1, and the classification of the concentrate with the best grade of zero points according to the Bavarian environmental classification model<sup>2</sup> proves the outstandingly benign environmental profile of STHAMEX®-Performance 1% F-10.

Due to its outstandingly favorable environmental profile, its suitability for all types of foam and its high wetting capacity, STHAMEX®-Performance 1% F-10 is particularly commended for typical application scenarios of municipal fire departments as well as forest- and vegetation fires.

#### Performance

STHAMEX®-Performance 1% F-10 is specifically designed for use with mobile foam generating equipment for Class A fires and Class B (non-polar) pool/spill fires, as well as for non-foam application as a wetting agent and for use as a CAFS<sup>3</sup> foam.

It foams very well hence is excellent for the production of low -, medium -, and high expansion foam. Low expansion foam made from STHAMEX®-Performance 1% F-10 provides a particularly fine-bubbled, compact and stable foam blanket that sticks well to solid surfaces cooling them and insulating them very effectively against radiant heat. The foam blanket slowly and evenly releases foam solution to the substrate and is thus able to very efficiently wet and penetrate deeply into solid (e.g. motor vehicles, Li-ion batteries, recycling materials, etc.) and ember-forming (e.g. wood, paper, tires, ...) materials.

Medium expansion foam produced from solutions of STHAMEX®-Performance 1% F-10 has a homogeneous bubble structure, flows well and is stable. With suitable high-expansion foam generators, STHAMEX®-Performance 1% F-10 produces a very even high-expansion foam with expansion rates of up to 1000:1. With low expansion foam allows to flood large rooms completely within a short time, and displace flammable gas-air mixtures preventively from containers, rooms, pipe trenches and e.g. engine rooms on ships.

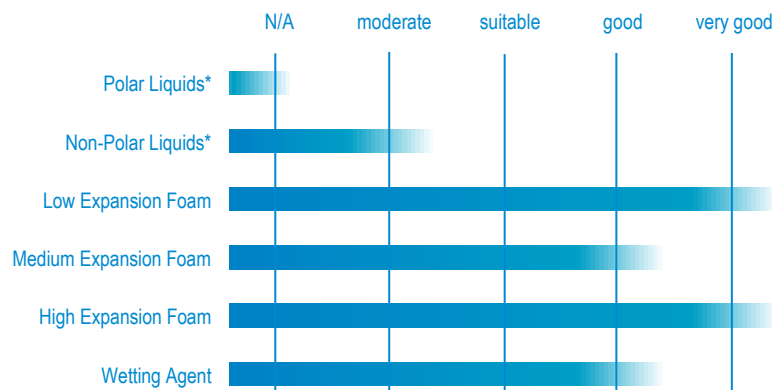
The robust formulation of STHAMEX®-Performance 1% F-10 grants a high level of redundancy in performance and stability against influences typical for situations of engagement.

#### Technical Specification

Appearance	colourless/yellow
Fire Class/-es	A + B
Lowest Use Temperature	-10 [°C]
Max. Storage Temperature	max. +50 [°C]
Specific Gravity (20°C)	1,050 ± 0,02 [g/ml]
pH value (20°C)	6,5 - 8,5
Viscosity (20°C)	< 50 [mm²/sec]
Sedimentation	Sediment Free

#### Foam Properties acc. to EN1568 at 20°C

Induction Rate	0,5% - 1%
Expansion Rate	7 - 11, 30 - 70, 800 - 1100
25% Drainage Time	1 - 4, 2 - 6, 2 - 4 [min]
50% Drainage Time	2 - 6, 6 - 10, 4 - 5 [min]
Expansion Types	Low -, Medium -, High Exp. Foam



\*as mentioned in the respective test standard or in the text

#### Performance Tests

**DIN EN 1568** EN 1568:2018 - Approval-No.: KB 25/20  
Part 3 (Heptane): IIIB/-  
Part 1: Medium Expansion Foam --- Part 2: High Expansion Foam

**Special Fire Test**  
Level B on Kerosene following ICAO Airport Services Manual using Sea Water

<sup>1</sup> We define fluorine-free as products that are manufactured without the intentional addition of fluoroorganic compounds for the purpose of improving performance in such a way that, according to currently commercially available analysis of PFAS in firefighting foam concentrates, they do not contain any quantity of fluoroorganic substances in excess of the ubiquitous regional background contamination (e.g. in the drinking water used for production).

<sup>2</sup> The Bavarian environmental classification is a simplified model for evaluating the toxicological and ecotoxicological profile of firefighting foam agents, which was developed on behalf of the Bavarian Ministry of the Interior and is increasingly being used in Germany. For more information on this topic, please read our TI 020-Environmental Classification Foam.

<sup>3</sup> CAFS: Compressed Air Foam System.

## Application

**STHAMEX®-Performance 1% F-10** can be expanded to give low -, medium -, and high expansion foam with all commercially available foam generating systems and -equipment and used as extinguishing foam against fires of class A- and -B fires (e.g. fires of plastics and mineral oil products). We will be pleased to advise you on such applications on a project basis, taking into account the required parameters, standards and regulations. Please contact us for further information.

**STHAMEX®-Performance 1% F-10** is insensitive to different fresh water qualities (e.g. water hardness). The proportioning rate to the fire water is 0,5-1%. The low viscosity allows the use of commercially available proportioners and dosing equipment down to the lowest application temperature of

**STHAMEX®-Performance 1% F-10** can be applied indirectly as low -, medium -, and high expansion foam to fires of non-polar<sup>4</sup> liquids and forms a fine-bubble, extremely stable, vapor-tight foam blanket, which is very flowable and thus highly effective in extinguishing fires. The firefighting foam agent significantly reduces the surface tension of water and for this reason is very well suited as a wetting agent for use on Class A fires. When used as a non-foaming wetting agent to extinguish hard-to-wet materials, the proportioning rate can be reduced to about one-tenth of the normal proportioning rate to fire water. For use as wetting agent standard branch-pipes can be used.

For extinguishing operations in the presence of or on electrical equipment, relevant standards for protection against damage by electricity (e.g. in Germany DIN/VDE-0132) must be followed.

## Compatibility

When mixing different firefighting foam agents, it must be considered that the resulting mixture is a new chemical product which is not tested as firefighting foam agent and also must be re-evaluated and labelled according to hazardous materials regulations.

As a general rule, firefighting foam concentrates should not be mixed with each other. **STHAMEX®-Performance 1% F-10** must not be mixed with other firefighting foam concentrates, even when used immediately (e.g. in case of emergency).

The foam produced from **STHAMEX®-Performance 1% F-10** is fully compatible with all other ready expanded firefighting foams.

## Storage & Shelf Life

When synthetic firefighting foam agents and concentrates are stored, only certain materials in only certain combinations are suitable for permanent media contact. Our detailed Technical Information Nos. 014 (Storage of synthetic firefighting foam concentrates) and 009 (Material suitability polymers) provide information on this and other important aspects for the optimum storage of our products. Please do not hesitate to contact us for further information. On short-term contact and subsequent thorough cleaning with water, # or a premix solution made from it will not corrode metals such as copper, aluminium, brass, admiralty brass or bronze. Elevated temperatures up to a maximum of +50°C or temporary freezing at temperatures below the specified frost resistance limit do not affect this high-quality product adversely (see our further Technical Information on the storage of firefighting foam agents). Temperature should not exceed +50°C.

Before filling storage tanks, these tanks and all supply lines, pumps, valves or other parts carrying media must be thoroughly cleaned, free of grease and free of residues from a previous filling. Before filling up stocks of our **STHAMEX®-Performance 1% F-10** we recommend to have a quality test of the stock to be filled up carried out in our laboratory.

<sup>4</sup> flammable liquids that are not miscible with water.

If stored according to our storage recommendations, a shelf life of well over ten years is possible.

## Environment

**STHAMEX®-Performance 1% F-10** is easily and completely biodegradable and free of organic fluorine compounds<sup>1</sup>, preservatives and silicone compounds.

After use, all parts which were in contact to **STHAMEX®-Performance 1% F-10** must be thoroughly rinsed with water and cleaned to prevent any product buildup. Dried-in adhesions may require longer time soaking for removal.

Unused product (concentrate) must not be released into the environment. Disposal must be carried out in consultation with local authorities and specialised waste treatment companies.

Please also note further information in our safety data sheet!

## Transport

**STHAMEX®-Performance 1% F-10** is available in the following packaging units: PE-canister (20 ltr, 25 ltr and 60 ltr), PE-canister according to DIN 14452 (20 ltr); PE-drum (200 ltr), PE-IBC (600 ltr and 1.000 ltr) or bulk. Please contact us for special packing sizes.



For further Documentation please scan the Qr code or see <http://sthamer.de/qqr9147>



**Safety Advice:** Please bear in mind that foam solutions are electroconductive liquids. The use in proximity to electrical/electronic equipment can require specific safety measures.



**Safety Advice:** Please see our Technical Information regarding "Mixing of Foam Concentrates" for further information

## Disclaimer:

Any information in this product data sheet bases upon our best knowledge and expertise at the time of this issue. We reserve the right to change the content of this document or adopt to newer information. Please ask for the most recent revision of this data sheet.

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