



## MOUSSOL® FXS FF 3/6 F-5 #2941



### ALCOHOL RESISTANT FOAM CONCENTRATE

MOUSSOL® FXS FF 3/6 F-5 is a synthetic, alcohol-resistant, multi purpose firefighting foam agent specifically designed for generating low- and medium expansion foam by fixed firefighting systems.

Rapid and even evaporation of the extinguishing agent enhances its cooling effect.

#### Performance

MOUSSOL® FXS FF 3/6 F-5 is a fluorine-free\*<sup>1</sup>, synthetic, alcohol-resistant firefighting foam agent designed to give particularly high performing Low, Medium, and High Expansion Foam. Special surfactants, foam stabilizers, polymers and antifreeze form this powerful product and are the foundation of its very good extinguishing properties. MOUSSOL® FXS FF 3/6 F-5 is resistant to both polar\*<sup>2</sup> and non-polar\*<sup>3</sup>, foam-destroying hydrocarbons as well as mixed products consisting of these.

It foams very well hence is excellent for the production of Low, Medium, and High Expansion Foam. Low expansion foam made from MOUSSOL® FXS FF 3/6 F-5 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 against radiant heat.

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. 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.

A stable polymer film forms on polar\*<sup>2</sup>, foam-destroying liquid hydrocarbons, protecting the foam blanket from further destruction. The polymer film forms a safe barrier against the foam-destroying action of water-miscible liquids and increases the resistance of the foam blanket to heat and drying.

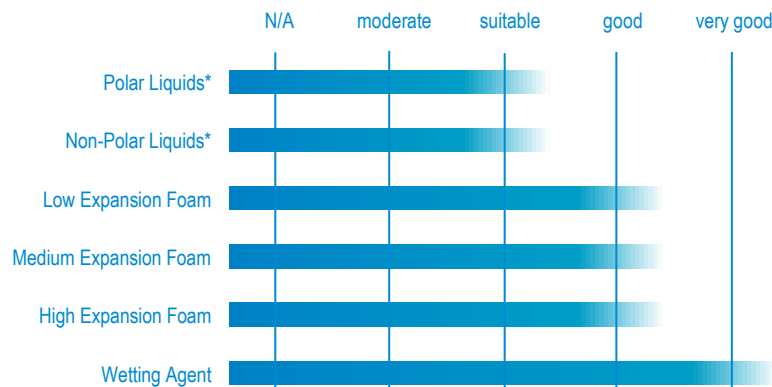
Medium expansion foam produced from solutions of MOUSSOL® FXS FF 3/6 F-5 has a homogeneous bubble structure, flows well and is stable. Extensive application and test experience is available for this product, confirming its performance and high level of built-in redundancy (please contact us for details).

#### Technical Specification

Appearance	colourless/yellow
Fire Class-es	A + B
Lowest Use Temperature	-5 [°C]
Max. Storage Temperature	max. +50 [°C]
Specific Gravity (20°C)	1,040 ± 0,02 [g/ml]
pH value (20°C)	6,5 - 8,5
Viscosity (20°C)	< 800(400) [mPa*s bei 75(375) 1/s]
Sedimentation	Sediment Free

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

Induction Rate	3% or 6%
Expansion Rate	5 - 9, 60 - 100, 700 - 1000
25% Drainage Time	4 - 8, 3 - 7, 2 - 6 [min]
50% Drainage Time	9 - 13, 8 - 12, 4 - 8 [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 1568:2002 - Approval-No.: KB-252/14  
Part 3 (Heptane): IIB/IIID  
Part 4 (Acetone): IA/IB --- (IPA): -  
Part 1: Medium Expansion Foam --- Part 2: High Expansion Foam
- ICAO Airport Services Manual** ICAO Airport Services Manual  
Low Expansion Foam --- Level B
- Special Fire Test** Special Fire Test  
3% IC/IIIC on Ethanol following EN1568-4 using Fresh Water

<sup>1</sup> We define fluorine-free as products that are manufactured without the intentional addition of fluororganic 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 fluororganic substances in excess of the ubiquitous regional background contamination (e.g. in the drinking water used for production).  
<sup>2</sup> flammable liquids that are miscible with water.  
<sup>3</sup> flammable liquids that are not miscible with water.

## Application

The product can be used with all qualities of fresh water, or with reused industrial water (without foam-destroying additives) and on non-polar<sup>3</sup> liquids also with sea or brackish water. For liquid fires, the proportioning rate to fire water is 3% for non-polar liquid hydrocarbons and 6% for water-miscible liquids.

MOUSSOL® FXS FF 3/6 F-5 can be foamed to Low, Medium, and High Expansion Foam with all commercially available foam systems and equipment and used as extinguishing foam against fires of class A fires + B (e.g. fires of plastics and mineral oil products). Low expansion foam made from MOUSSOL® FXS FF 3/6 F-5 can be applied directly onto fires of non-polar<sup>3</sup> liquids (indirect foam application is usually more efficient and preferable). Foam should be applied gently<sup>4</sup> to fires of polar liquids to achieve optimum extinguishing success (see technical leaflet TM 037 "Extinguishing alcohol 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 branchpipes can be used. An non-expanded application of the premix is only effective on Class A fires under certain conditions.

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

MOUSSOL® FXS FF 3/6 F-5 shall under no circumstances be mixed with other firefighting foam concentrates or -solutions, neither as a concentrate nor as a premix. Even the smallest quantities can render the products concerned non-useable, respectively lead to precipitation or agglomeration and consequently to equipment failure. 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 labeled according to hazardous materials regulations.

The foam produced from MOUSSOL® FXS FF 3/6 F-5 is fully compatible with all other ready expanded firefighting foams.

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. Please contact us for special packing sizes.

## Storage & Shelf Life

When synthetic firefighting foam agents and concentrates are stored, only certain materials and also only in 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.

When selecting construction materials for fixed firefighting systems dissimilar metal conductivity materials should be avoided to prevent or minimize electrochemical corrosion<sup>5</sup>. Note that firefighting foam

concentrates and application solutions made from them are electrical-conductive liquids.

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).

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 MOUSSOL® FXS FF 3/6 F-5 we recommend to have a quality test of the stock to be filled up carried out in our laboratory.

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

## Environment

After use, all parts which were in contact to MOUSSOL® FXS FF 3/6 F-5 must be thoroughly rinsed with water and cleaned to prevent any product buildup. Dried-in adhesions may require longer time soaking for removal.

We recommend to coordinate the discharge of the application solution into the sewage system in advance with the operator of the local wastewater treatment plant and/or the local authorities. Disposal must be carried out in consultation with local authorities and specialised waste treatment companies. Rapid and even evaporation of the extinguishing agent enhances its cooling effect.

## Transport

MOUSSOL® FXS FF 3/6 F-5 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 und 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/qr/2941>



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:

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<sup>4</sup> e.g. via pouring elbows, foam baffles, or roll-on or rain-down technique

<sup>5</sup> local elements (electrochemical batteries) are created, for example, when base metals are connected conductively via an electrolyte. Mostly this leads to the destruction of the more base metal hence the part made from it.

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