



FLUOR-FOAMOUSSE® MARINE 3% F-15 #5315



FLUORO PROTEIN FOAM CONCENTRATE

FLUOR-FOAMOUSSE® MARINE 3% F-15 is a protein-based foam extinguishing concentrate for the generation of low expansion foam. Natural, renewable proteins serving as foam-forming components are combined with foam stabilizers, antifreeze additives and fluorine compounds to create an exceptionally powerful foam concentrate for firefighting.

The fluorine components contained improve flowability and fuel-repellency of the foam made from FLUOR-FOAMOUSSE® MARINE 3% F-15 allowing for its use on non-polar*¹ hydrocarbons or even fuels with small additions (<10% by volume) of foam-destroying substances such as ethanol or MTBE.

FLUOR-FOAMOUSSE® MARINE 3% F-15 is particularly suitable and tested for use in marine environments.

Performance

Low expansion foam made from FLUOR-FOAMOUSSE® MARINE 3% F-15 forms a stable foam blanket that is highly resistant to heat and air movement.

Low expansion foam made from FLUOR-FOAMOUSSE® MARINE 3% F-15 consists of fine and even bubbles providing a very homogeneous structure and a dense and moist foam blanket. The firefighting foam solution draining out from the foam promotes flow of the foam blanket and cools very efficiently. During engagement these features provide firefighters with long distance throw and a readily spreading and fast flowing foam blanket with very good cooling and securing effect.

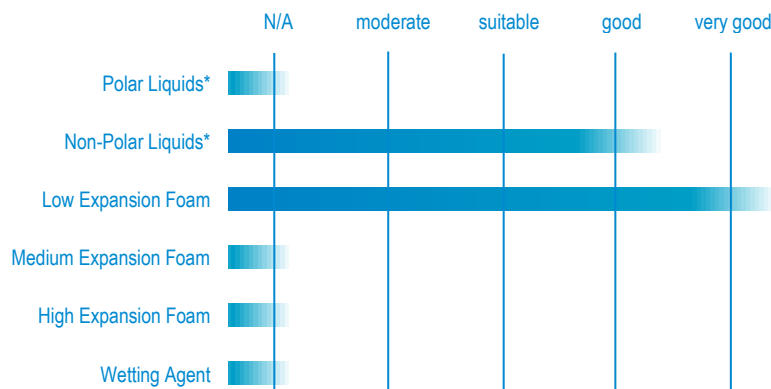
The fluorine components contained in the foam improve its spreading capabilities and make it oil-repellent (oleophobic), i.e. it exhibits very low emulsifying properties and therefore hardly picks up fuel. This oleophobic property empowers Low Expansion Foam for direct application onto the burning fuel surface or by "sub-surface"-technique.

Technical Specification

Appearance	dark brown/dark brown/black
Fire Class/es	B
Lowest Use Temperature	-15 [°C]
Max. Storage Temperature	max. +50 [°C]
Specific Gravity (20°C)	1,180 ± 0,02 [g/ml]
pH value (20°C)	6,5 - 8,0
Viscosity (20°C)	< 30 [mm ² /sec]
Sedimentation	< 0,25 [%]

Foam Properties acc. to EN1568 at 20°C

Induction Rate	3%
Expansion Rate	6 - 10
25% Drainage Time	2 - 6 [min]
50% Drainage Time	6 - 10 [min]
Expansion Types	Low Expansion Foam



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

Performance Tests



IMO MSC.1/Circ. 1312 non-polar (Heptane)



Notified Body: BG Verkehr - No. 0736
Approval-No.: 201044-01

¹ flammable liquids that are miscible with water.

Application

FLUOR-FOAMOUSSE® MARINE 3% F-15 is designed for use as Low Expansion Foam with all mobile and fixed firefighting systems and equipment, especially for extinguishing fires of fire class B.

The fluorine components contained improve flowability and fuel-repellency of the foam made from *FLUOR-FOAMOUSSE® MARINE 3% F-15* allowing for its use on non-polar*¹ hydrocarbons or even fuels with small additions (<10% by volume) of foam-destroying substances such as ethanol or MTBE. The main application areas are the petroleum and petrochemical industries, airports, shipping, onshore and offshore.

FLUOR-FOAMOUSSE® MARINE 3% F-15 is suitable for all qualities of water (fresh water, industrial water free of foam-destroying additives, sea water and brackish water). The proportioning rate to the fire water is 3%.

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

For immediate use (e.g. in case of emergency) *FLUOR-FOAMOUSSE® MARINE 3% F-15* can be mixed in any ratio with similar firefighting foam agents. 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. Mixtures of *FLUOR-FOAMOUSSE® MARINE 3% F-15* with other firefighting foam concentrates are not suitable for storage - not even short term.

The foam produced from *FLUOR-FOAMOUSSE® MARINE 3% F-15* is fully compatible with all other ready expanded firefighting foams.

Storage & Shelf Life

Since based on Protein, *FLUOR-FOAMOUSSE® MARINE 3% F-15* can - unlike all synthetic firefighting foam concentrates - also be stored in steel containers, thus opening up access to particularly cost-effective storage.

When selecting construction materials for fixed firefighting systems dissimilar metal conductivity materials should be avoided to prevent or minimize electrochemical corrosion*². Note that firefighting foam concentrates and application

solutions made from them are electrically conductive liquids.

FLUOR-FOAMOUSSE® MARINE 3% F-15 can be stored for up to 10 years or more in the originally sealed container or in suitable storage containers*³ at temperatures not below the specified frost resistance and not above 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 *FLUOR-FOAMOUSSE® MARINE 3% F-15* we recommend to have a quality test of the stock to be filled up carried out in our laboratory.

Environment

After use, all parts which were in contact to *FLUOR-FOAMOUSSE® MARINE 3% F-15* must be thoroughly rinsed with water and cleaned to prevent any product buildup. Dried-in adhesions may require longer time soaking for removal.

The product contains organic fluorine compounds which cannot be completely degraded in the environment. 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

FLUOR-FOAMOUSSE® MARINE 3% F-15 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/5315>



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.

² 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.

³ Please refer to the additional technical information on material compatibility and storage of firefighting foam agents for information on suitable containers and container materials.

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