# **Product Data Sheet**





va₽UREx<sup>®</sup> LV ICAO B 1% F-5 #7142



## FLUORINE FREE FOAM CONCENTRATE

Special surfactants, stabilizers and antifreeze form the basis for this powerful product and its excellent extinguishing capabilities especially on large fires of aviation fuels (kerosene, Jet A, etc.).

The robust formulation of vaPUREx® LV ICAO B 1% F-5 grants a high level of redundancy in performance and stability against influences typical for situations of engagement. The low proportioning rate of only 1% offers enormous logistical advantages.

### Performance

The excellent effectiveness on aviation fuels, but also the application possibilities as an environmentally friendly class A firefighting foam agent or as a wetting agent in indoor areas (baggage handling, storage areas, catering, ...) qualify vaPUREx<sup>®</sup> LV ICAO B 1% F-5 as the firefighting foam agent of choice for airports and other areas of the aviation industry. A special composition of raw materials suppresses fuel pick-up\*1 and allows for direct (forceful) foam application onto fires of non-polar\*2 liquid hydrocarbons. The robust formulation of vaPU-REx<sup>®</sup> LV ICAO B 1% F-5 grants a high level of redundancy in performance and stability against influences typical for situations of engagement.

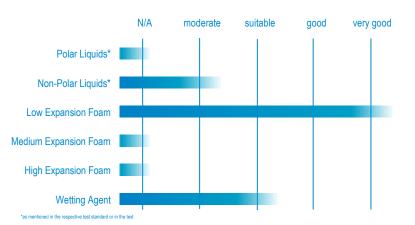
vaPUREx<sup>®</sup> LV ICAO B 1% F-5 is easily and completely biodegradable and free of organic fluorine compounds\*3, preservatives and silicone compounds. vaPUREx<sup>®</sup> LV ICAO B 1% F-5 exhibits low viscosity and is easy flowing down to the lowest temperature for use.

#### **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)	1,010 ± 0,02 [g/ml]
pH value (20°C)	6,5 - 8,5
Viscosity (20°C)	< 20 [mm <sup>2</sup> /sec]
Sedimentation	Sediment Free

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

Induction Rate	1%
Expansion Rate	6 - 10
25% Drainage Time	1 - 5 [min]
50% Drainage Time	3 - 7 [min]
Expansion Types	Low Expansion Foam



fuel pick-up means the absorbtion of liquid hydrocarbon fuels into the foam blanket bei either the emulsifying action of surfactants or physically by blending droplets of fuel into the foam. Fuel pick-up typically leads to a significant drop of extinguishing perfor-mance of the foam (burning foam blanket) and an increased decay of the foam. flammable liquids that are not miscible with water. 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).

### Performance Tests



ICAO Airport Services Manual Low Expansion Foam --- Level B

Special Fire Test I+A on Kerosene following EN1568-3 using Fresh Water

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## **Application**

*vaPUREx*<sup>®</sup> *LV ICAO B 1% F-5* foams very well to yield an exceptionally well flowing and -sealing low expansion foam with very high extinguishing performance. The proportioning rate to the fire water is 1%. *vaPUREx*<sup>®</sup> *LV ICAO B 1% F-5* is insensitive to different fresh water qualities (e.g. water hardness). The low viscosity allows the use of commercially available proportioners and dosing equipment down to the lowest application temperature of

Low expansion foam made from *vaPUREx*<sup>®</sup> LV ICAO B 1% 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. Due to its stable structure, the foam can also be applied to pools of flammable liquids for vapor suppression or as a preventive fire protection measure.

## 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. *vaPUREx*<sup>®</sup> *LV ICAO B 1% F-5* must not be mixed with

other firefighting foam concentrates, even when used immediately (e.g. in case of emergency).

The foam produced from *vaPUREx*<sup>®</sup> LV ICAO B 1% F-5 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 *vaPUREx*<sup>®</sup> *LV ICAO B 1% 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

*vaPUREx*<sup>®</sup> *LV ICAO B 1% F-5* was fully toxicologically tested. The product is readily biodegradable. 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

*vaPUREx*<sup>®</sup> *LV ICAO B 1% 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/7142



Safetv Advice: Please bear in mind that foam solutions are

electroconductive liquids. The use in proximity to electrical/electronical 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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