

Fire Fighting Solutions



# **BAVARIA TYPHOON 3% - AFFF**

# AQUEOUS FILM FORMING FIRE EXTNGUISHING FOAM CONCENTRATE

# **TYPHOON 3%**



DIN EN 1568



## **Application:**

TYPHOON 3% - AFFF is used at 3% concentration and applied with all standard low expansion foam equipment and fixed foam installations especially for class B fires. The non-aspirated solution of TYPHOON 3% - AFFF can be applied using water monitors, water sprinklers or deluge systems. Seawater, brackish water and treated industrial water do not affect the outstanding fire performance.

TYPHOON 3% - AFFF is used in petrochemical industries, on airports and in on- and offshore areas. It is also used in plastics and recycling industries and generally, where large fire loads have to be extinguished safely and within the shortest time possible. When used near electrical installations observe DIN/VDE-0132, or equivalent national standards.



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# **BAVARIA Typhoon 3% - AFFF**

AQUEOUS FILM FORMING FIRE EXTNGUISHING FOAM CONCENTRATE

#### **Description:**

TYPHOON 3%- AFFF is a synthetic, aqueous film forming fire extinguishing foam concentrate, based on surface active agents. Special surfactants, fluorinated components and freeze protection characterize the composition of this outstanding product. Using only the latest C6 technology, the fluorinated components contained in TYPHOON 3%- AFFF are in full compliance with Directive EU 757/2010.

#### **Properties:**

TYPHOON 3%- AFFF forms foam very readily and is used for both low and medium expansion foam applications. The film forming and re-ignition preventing ingredients of TYPHOON 3% - AFFF provide for extremely fast and effective extinction especially when used on class B fires. The aqueous film formed out of the draining foam solution spreads extremely fast and enhances the flowing properties and burn-back resistance of the foam. The extinction time is reduced considerably and the fire source cooled. The aqueous film even extinguishes areas scarcely covered with foam and prevents re-igniting of areas, where the foam layer is ruptured. The foam is stable and in combination with the aqueous film, it forms a lasting, gastight layer on flammable areas. Due to its high foam density a long throwing range can be achieved. The foam is oleophobic, i.e. it does not pick up fuel and is therefore particularly suitable for "sub-surface" foam application. Plastics are covered evenly and wetted thoroughly. On hydrocarbon products TYPHOON 3%- AFFF can be applied as non-aspirated, aqueous solution by means of e.g. water monitors, water sprinklers, deluge systems etc.

TYPHOON 3%- AFFF is not suitable for use on polar solvents, e.g. alcohols.

TYPHOON 3%- AFFF does not contain silicones.

#### **Environment**

None of the raw materials used in our products are banned. Our foam concentrates comply with the latest environmental regulations, such as 'Commission Regulation (EU) No 757/2010', amending '(EC) No 850/2004' TYPHOON 3%- AFFF will also comply with the 'significant new use rule (SNUR)' for long-chain perfluoroalkyl carboxylate proposed by the Environmental Protection Agency, which will come into effect in due course.

#### Compatibility

#### Mixing for immediate use:

TYPHOON 3%- AFFF may be mixed at any proportion with equivalent foam concentrates if used immediately.

#### Mixing for long term storage:

Prior to replenishment, the quality of TYPHOON 3%- AFFF stocks should be examined by our laboratory.

Blending of TYPHOON 3%- AFFF with similar AFFF concentrates for long-term storage is not recommended unless tested and approved by our laboratory.

## Mixing with synthetic concentrates:

TYPHOON 3%- AFFF must not be mixed with synthetic detergent, alcohol resistant, or protein foam concentrates.

#### Mixing with other expanded foams:

When deployed, TYPHOON 3%- AFFF foam is compatible with all other generated foams.

#### Compatibility with powder

TYPHOON 3%- AFFF is suitable for the combined use with foam compatible dry chemical powders.

## **Packaging**

TYPHOON 3%- AFFF is available in jerrycans, plastic drums, steel drums, pallet containers (totes) and in bulk.

UL approved packaging is available for BAVARIA TYPHOON AFFF 3%, in 20 kg plastic jerrycans and 200 kg plastic drums.

#### **Storage**

TYPHOON 3%- AFFF is stored long term in the sealed original containers or in non-corrosive plastic or stainless steel tanks. High temperatures up to 50°C do not affect the quality, neither does temporary freezing below the specified frost resistance limit. (see technical leaflet B.FL 024 "Storage of synthetic foam concentrates"). Before re-filling foam concentrate stocks arrange for a quality check-up by our laboratory.

#### **Shelf Life**

TYPHOON 3%- AFFF has a shelf life of >10 years, if stored according to our recommendations (see technical info leaflet B.FL 024 'Storage of Synthetic Fire Extinguishing Foam Concentrates').



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### **Performance**

TYPHOON 3% is UL 162 listed and type approved according to EN 1568 part 3.



DIN EN 1568, Part 3: IA/IA



According to UL 162

# Physical properties and technical data:

Country of Origin		Germany		
Recommended induction rate		3%	low expansion foam	non-polar liquids
Foam Expansion* (according to EN 1568)		5 -10	low expansion foam*	
25% / 50% water drainage time*		3 - 4 minutes	4 - 8 minutes	low expansion foam*
Colour		Colorless to yellow		
pH-value	@ 20°C	6.5 - 8		
Density	@ 20°C	1.03 ± 0.02 g/ml		
Sediments		none		
Surface tension/Spreading coefficient		< 17.5 mN/m	> 3 mN/m (Cyclohexane)	
Frost resistance		- 15°C		
	@ 20°C	< 10 mm <sup>2</sup> /s	sec	
Viscosity	@ 0 °C	< 20 mm <sup>2</sup> /s	sec	
	@ -15°C	< 30   mm <sup>2</sup> /s	sec	
Enviromental acceptability		BAVARIA TYPHOON AFFF 3% is physiologically harmless and readily bio degradable. Fluorine components are not fully degradable. See material safety data sheet for further information.		
Special notes		BAVARIA TYPHOON AFFF 3% poses no health risk, provided it is used as intended as fire extinguishing foam. Fire fighting exercise and testing may have to be agreed with local authorities. Take into account when spraying persons with foam that they will not be able to breathe whilst covered with foam. See material safety data sheet for further information.		

<sup>\*</sup>Foam expansion and drainage times may vary, depending on foam equipment and operating pressure.

<sup>\*</sup> The illustrations may show optional extras only available at extra charge. BAVARIA retains the right to alter specifications and illustrations given herein without prior notice. Specifications will only be considered communicated at placing of order.