

## TOWALEX AFFF 1% PLUS AFFF 1% Foam Concentrate

### Features

- 1% on hydrocarbon fires
- Newtonian viscosity
- EN1568: 2008 approved
- Freeze protected to -8°C
- For use with aspirating and non-aspirating discharge devices
- Suitable for use with fresh, salt or hard water
- Supplied ready to use in 20, 25, 200 or 1000 litres packaging

### Description

TOWALEX AFFF 1% PLUS is an aqueous film forming foam concentrate (AFFF) based on fluorosurfactants, hydrocarbon tensides and glycol ethers for use at 1% induction ratio.

AFFF is a synthetic concentrate comprised of detergent and hydrocarbon surfactant that form a foam with the inherent ability to produce a vapour suppressing aqueous film on the surface of the hydrocarbon fuels.

### Performance

TOWALEX AFFF 1% PLUS is measured against the latest specifications of the European Standard EN1568 : 2008 edition.

AFFF provides a rapid flame knock down on class B fires involving hydrocarbon fuels such as oil, petroleum and aviation fuels.

On application, the foam spreads rapidly to form an aqueous film and foam blanket. The aqueous film suppresses the release of fuel vapours. The foam blanket effectively excludes oxygen from the fuel surface, extinguishing the fire and preventing re-ignition.

Additionally it provides a cooling function on the fuel by enclosed water and makes the water float on fuel surfaces in spite of it's usually higher density.



### Application

TOWALEX AFFF 1% PLUS can be used by most conventional foam proportioning equipment such as:

- Balance pressure pump proportioning equipment
- Bladder tank and related proportioners
- Around-the-pump proportioners
- Fixed and portable In-line venturi type inductors
- Fixed or handline nozzles with fixed induction/pick up tubes

TOWALEX AFFF 1% PLUS is ideal for fixed foam system application on land base projects, Foam water sprinkler systems, pumping stations, aircraft hangars and tank protection for both air aspirating and non-aspirating nozzles.

The foam produced by TOWALEX AFFF 1% PLUS extinguishes hydrocarbon fires by either forceful or gentle application.

TOWALEX AFFF 1% PLUS is compatible with all foam-compatible dry chemical extinguishing powders.

Sea water can be used without an increase in the application rate.

### Approvals

The fire performance of TOWALEX AFFF 1% PLUS is measured and listed according to:

- EN 1568:2008 Parts 1,2 & 3
- GOST-R (Russia)
- Meet EPA 2015 Directive



## Storage and Shelf Life

TOWALEX AFFF 1% PLUS has an operational temperature range of -5°C and +60°C. Limited exposure to temperatures above +60°C does not affect the firefighting performance.

When stored in the packaging supplied (polyethylene drums or cans) or in equipment recommended by the manufacturer as part of the foam system and within the temperature limits specified, the shelf life of TOWALEX AFFF 1% PLUS Concentrate is about 20-25 years.

The factors affecting shelf life and stability for SKUM foam agents are discussed in detail in our Technical Bulletin 11A for storage recommendation.

If the product is frozen during storage or transportation, the concentrate should be thawed and used without any degeneration of the performance.

## Safety and Handling

See our corresponding "Material Safety data sheet".

## Materials of Construction Compatibility

Tests have been performed with TOWALEX Concentrate verifying its compatibility with standard carbon steel "black" pipe and pipe manufactured from various stainless steel or brass compounds.

Alternative pipe, fittings, and valves may be used in some cases if acceptable to the customer and/or the authority having jurisdiction.

Refer to our Technical Bulletin 13A, addressing acceptable materials of construction for use with SKUM foam concentrates.

Galvanized pipe and fittings must not be used in areas where undiluted concentrate will contact them since corrosion will result.

For more information regarding specific guidelines about construction materials, please email [info@skum.com](mailto:info@skum.com)

## Quality Assurance

TOWALEX AFFF 1% PLUS – as with all TYCO Products – is subject to very stringent quality controls throughout all stages of production, from incoming raw to the complete product and is manufactured in an ISO 9001:2008 controlled facility. Quality assurance is therefore guaranteed.

## Typical Properties at 20°C

■ TOWALEX AFFF 1% PLUS	AFFF 1%
■ Fire Classes	A and B
■ Shape and colour	Pale yellow clear liquid
■ Smell	Characteristic, surfactant-alike
■ Density (20°C)	1.06 ±0.02 [g/ml]
■ pH (concentrate, 20°C)	7.5 ±0.5
■ Viscosity 20°C	7.0 ±1.0 [mm <sup>2</sup> /s]
■ Sediment (EN-1568)	≤ 0.1 [%]
■ Admixing ratio	1 [% Vol<]
■ Expansion Ratio (EN-1568-3)	≥ 6.0
■ Drain Time 25%, (20°C, EN-1568-3)	≥ 2:30 [min:s]
■ Drain Time 50%, (20°C, EN-1568-3)	≥ 4:00 [min:s]
■ Expansion	Low, Medium
■ Pour Point	≤ -8 [°C]
■ Freezing Point	≤ -10 [°C]
■ Recommended storage/ Usage temperature	-5 to +60 [°C]

## Ordering Information

TOWALEX AFFF 1% PLUS can be supplied in cans, drums, totes or Bulk (contact us for Bulk delivery).

<u>Part No.</u>	<u>Description</u>
■ F101166C2	20 Litre can
■ F101166C3	20 Litre DIN yellow can
■ F101166C1	25 Litre can
■ F101166E1	200 Litre drum
■ F101166T1	1000 Litre tote
■ F101166B1	Bulk

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