

HYDRAL 1 PLUS Foam Concentrate

Aqueous Film-Forming Foam (AFFF) concentrate at 1% for hydrocarbon fires

Description

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

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

Performance

HYDRAL 1 PLUS is measured against the highest specifications and standards such as the European EN1568 latest edition 2008.

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.

HYDRAL 1 PLUS can be used by most conventional foam 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



Application

HYDRAL 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 HYDRAL 1 PLUS extinguishes hydrocarbon fires by either forceful or gentle application.

HYDRAL 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

HYDRAL 1 PLUS is measured and tested according to:

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



Storage and Shelf Life

HYDRAL 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 HYDRAL 1 PLUS Concentrate is about 20-25 years.

The factors affecting shelf life and stability for SABOFOAM agents are discussed in detail in our Technical Bulletin 11B 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 Constructions Compatibility

Tests have been performed with SABOFOAM 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 13B: addressing acceptable materials of construction for use with SABOFOAM 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 at: sabofoam.levate@tycoint.com

Quality Assurance

HYDRAL 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

■ HYDRAL 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	6.0 ±1.0 [mm ² /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]
■ Recommended Storage/ Usage Temperature	-5 to +60 [°C]

Ordering Information

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

<u>Part No.</u>	<u>Description</u>
■ F101360C2	20 Litre can
■ F101360C1	25 Litre can
■ F101360D1	200 Litre drum
■ F101360T1	1000 Litre tote
■ F101360B1	Bulk

www.sabofoam.com