SABO FOAM

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HYDRAL 3
Foam Concentrate

Aqueous Film-Forming Foam concentrate AFFF at 3% for hydrocarbon Fires

Description

HYDRAL 3 is an aqueous film forming foam concentrates (AFFF) based on fluoro-surfactants, hydrocarbon tensides and glycolethers for use at 3% induction ratio.

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

Performance

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 vapors. 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 3 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 3 is ideal for Marine application on board vessels Hydrocarbon flammable liquids, pumping stations, Aircraft hangars and tank protection and for non-air-aspirating hand line.

The foam produced by **HYDRAL 3** extinguishes hydrocarbon fires by direct and indirect application.

HYDRAL 3 is compatible with all foam-compatible dry chemical extinguishing powders.
Sea water can be used without an increase in the application rate.

Approvals

HYDRAL 3 is approved according to:

IMO Msc / Circ 582 by Lloyds Register
IMO Msc / Circ 582 by RINA
UK Defense Standard 42/40
UNI 9493 (Italian Ministry of Interior)
GESIP 99/02 @ 2 L/m²/min (France)



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Storage and shelf life

HYDRAL 3 has an operational temperature range of –7°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 3** Concentrate is about 20-25 years.

The factors affecting shelf life and stability for HYDRAL AFFF Agents are discussed in detail in our Technical Bulletin 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 HYDRAL 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, addressing acceptable materials of construction for use with HYDRAL foam concentrates.

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

Please first consult Tyco for specific guidelines concerning materials of construction.

Quality insurance

HYDRAL 3 – as with all TYCO Products – is subject to a very stringent quality controls throughout all stages of production, from incoming raw to the complete product and is manufactured in an ISO 9001:2000 controlled facility. Quality assurance is therefore guaranteed.

Typical properties

HYDRAL 3	AFFF
Fire Classes	A and B
Shape and color	Pale yellow clear liquid
Smell	Characteristic, surfactant-alike
Density (20°C)	1,02 ±0.02 [g/ml]
pH (concentrate, 20°C)	7,5 ±0.5
Viscosity 20°C	3.0 ±2 [mm²/s]
Sediment (EN 1568)	≤ 0,1 [%]
Admixing ratio	3 [% Vol.]
Expansion Ratio (EN 1568-3)	≥ 8,0
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
Freezing Point	≤ -12 [°C]
Pour Point	≤ -10 [°C]
Recommended storage/Usage temperature	-7 to +60 [°C]

Ordering information

HYDRAL 3 can be supplied in cans, drums, totes or Bulk (contact us for Bulk delivery).

Part No. F103301C2	20 Liter can
Part No. F103301C1	25 Liter can
Part No. F103301D1	200 Liter drum
Part No. F103301T1	1000 Liter tote
Part No. F103301B1	Bulk

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