

## First class film forming fluoroprotein foam concentrate for 3% Application on Hydrocarbons fires

### Product description

HYDREX 3 is a film forming fluoroprotein foam concentrate (FFFP) based on hydrolyzed protein, fluorosurfactants blending, stabilizer salts and glycol ethers for use at 3% induction ratio.

An intense research work including many laboratory and full scale fire tests routed to the outstanding sealing and extinguishing performance of HYDREX 3. Compare to other protein based foams HYDREX 3 produces an extremely fast spreading aqueous film, that acts as a vapor suppressor as well as a "lubricant" helping the foam blanket to rapidly cover all surfaces. The remarkable stability of the protein foam provides a long resistance to reignition. The result is a very effective agent with an outstanding performance in extinguishment and securing a fire scenario.

### Performances

HYDREX 3 is measured against the highest specifications and standards such as EN 1568 part 3.

On spills or large hydrocarbon fires, the foam immediately forms an aqueous film on the surface of the fuel. The spreading film covers the fuel to extinguish the fire and prevents hydrocarbon evaporation. This leads to a superior burn back resistance. The tough structure of the protein based foam enhances its stability on the fuel. The foam has a much higher fuel tolerance than other regular fluoroprotein foams.

In case of injuries of the foam blanket it shows very good healing capabilities closing any defect very quickly. 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

HYDREX 3 is intended for use on Class B hydrocarbon fuels being classified as non water miscible (so called non polar fuels) such as various crude oils, gasoline, diesel fuels, aviation fuels and hydrocarbons with low water solubility such as MTBE or Biofuels with a maximum content of 15% ethanol.

HYDREX 3 is ideal for fast extinguishing of spills, Airport emergency response, Efficient Oil tank storage protection, fixed spray protection systems ...

The foam produced by HYDREX 3 can be used either with air aspirating or non aspirating type discharge devices. Sea water can be used without an increase in the application rate.

A common application with (foam compatible) Dry chemical powders to achieve a maximum fire performance is possible.

HYDREX 3 can be used by most conventional foam equipment such as:

- Balance pressure pump proportioning equipment
- Bladder tank and related proportioners
- Fixed and portable Inline venturi type inductor
- Fixed or handline nozzles or Monitors with fixed induction/pick up tubes



## Approvals

HYDREX 3 is approved or listed according to:  
EN 1568: 2000 Part. 3  
GESIP 99/02 @ 2L/m<sup>2</sup>/min (France)

## Storage and shelf life

HYDREX 3 film forming fluoroprotein foam has an operational temperature range of -10°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 pails) within the temperature limits specified, or in equipment recommended by the manufacturer as part of the foam system, the shelf life of HYDREX 3 FFFP Foam Concentrate is generally ≥ 10 years.

If the product is frozen during storage or transportation, thawing will render the product completely usable.

The factors affecting shelf life and stability for HYDREX FFFP Agents are discussed in detail in our Technical Bulletin for storage recommendation.

## Safety and handling

See our corresponding "Material Safety data sheet".

## Compatibility

There are no specifications or standards which address the subject of compatibility of different manufacturer's brands of film forming fluoroprotein foam concentrates. In an emergency or if the manufacturer has supporting test data to substantiate that the mixture meets the same requirements as the individual component concentrates, they may be mixed together in the same storage vessel.

Different types of foam concentrates, i.e., AFFF and fluoro-protein base should not be mixed under any circumstances.

## Quality insurance

HYDREX 3 – as with all SABO Española 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

HYDREX 3	FFFP
Fire Classes	A and B
Shape and color	Brown clear liquid
Smell	Characteristic, Protein
Density (20°C)	1,16 ±0.02 [g/ml]
pH (concentrate, 20°C)	7,0 ±0.5
Viscosity 20°C	10,0 ±4,0 [mm <sup>2</sup> /s]
Sediment (EN 1568)	≤ 0,25 [%]
Admixing ratio	3 [% Vol.]
Expansion Ratio (EN 15683)	≥ 7,0
Drain Time 25%, (20°C, EN 15683)	≥ 2:30
Drain Time 50%, (20°C, EN 15683)	≥ 4:00
Expansion	Low, (Medium)
Freezing Point	≤ -15 [°C]
Pour Point	≤ -12 [°C]
Recommended storage/Usage temperature	-10 to +60 [°C]

## Ordering information

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

Part No. F403325C1 25 Liter can Part  
No. F403325D1 200 Liter drum Part  
No. F403325T1 1000 Liter tote Part  
No. F403325B1 Bulk (Liter)