

New

## Aqueous Film-Forming Foam concentrate AFFF at 6% For Hydrocarbon Fires



### Description

**HYDRAL S6** is an aqueous film forming foam concentrates (AFFF) based on fluoro-surfactants, hydrocarbon tensides and glycolethers for use at 6% 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 S6** can be used by most conventional foam equipment such as:

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

### Application

**HYDRAL S6** is designed for Airport Fire trucks security, Aircraft hangars and all Hydrocarbon Fire protection in both aspirating or non-air-aspirating nozzles.

The foam produced by **HYDRAL S6** extinguishes hydrocarbon fires by either forceful or soft application.

**HYDRAL S6** is compatible with all foam-compatible dry chemical extinguishing powders.

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

### Approvals

**HYDRAL S6** is tested and approved according to:

- ICAO Level B  
(International Civil Aviation Organization)



### Storage and shelf life

**HYDRAL S6** has an operational temperature range of  $-7^{\circ}\text{C}$  and  $+60^{\circ}\text{C}$ . Limited exposure to temperatures above  $+60^{\circ}\text{C}$  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 S6** Concentrate is about 20-25 years.

The factors affecting shelf life and stability for SABO Foams 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 S6** – 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

|  |                                  |
|--|----------------------------------|
| <b>HYDRAL S6</b>                             | AFFF                             |
| <b>Fire Classes</b>                          | A and B                          |
| <b>Shape and color</b>                       | Pale yellow clear liquid         |
| <b>Smell</b>                                 | Characteristic, surfactant-alike |
| <b>Density (20°C)</b>                        | 1,03 ±0.02 [g/ml]                |
| <b>pH (concentrate, 20°C)</b>                | 7,5 ±0.5                         |
| <b>Viscosity 20°C</b>                        | 3.0 ±1.0 [mm <sup>2</sup> /s]    |
| <b>Sediment (EN 1568)</b>                    | ≤ 0,05 [%]                       |
| <b>Admixing ratio</b>                        | 6 [% Vol.]                       |
| <b>Expansion Ratio (EN 1568-3)</b>           | ≥ 8,0                            |
| <b>Drain Time 25%, (20°C, EN 1568-3)</b>     | ≥ 2:30 [min:s]                   |
| <b>Drain Time 50%, (20°C, EN 1568-3)</b>     | ≥ 4:00 [min:s]                   |
| <b>Expansion</b>                             | Low, Medium                      |
| <b>Freezing Point</b>                        | ≤ -13 [°C]                       |
| <b>Pour Point</b>                            | ≤ -10 [°C]                       |
| <b>Recommended storage/Usage temperature</b> | -7 to +60 [°C]                   |

### Ordering information

**HYDRAL S6** can be supplied in cans, drums, totes or Bulk (contact us for Bulk delivery).

|                    |                 |
|--------------------|-----------------|
| Part No. F106348C2 | 20 Liter can    |
| Part No. F106348C1 | 25 Liter can    |
| Part No. F106348D1 | 200 Liter drum  |
| Part No. F106348T1 | 1000 Liter tote |
| Part No. F106348B1 | Bulk            |