SILVARA K6
FIRE FIGHTING FOAM CLASS A, B

1. DESCRIPTION

Silvara K6 is fluorine free low viscosity newtonian foam concentrate to extinguish hydrocarbon fuels fires and solids.

Silvara K6 is formulated with solvents, hydrocarbon surfactants and additives. Silvara K6 doesn´t contain any type of organic halogen compound, it is easily biodegradable and responsible with the environment.

Silvara K6 forms resistant foam to isolate the fuel of the oxygen and extinguish the fire.

2. APPLICATION

Silvara K6 should be used at 6%. Although its best fire performance is achieved when used with fresh water, it can be used with sea water as well as brackish water. Silvara K6 is designed to extinguish class B fires (hydrocarbons fuels). It is not suitable to use on polar fuels.

It is useful to combat class A fires (solids) due to its excellent wetting properties.

It should be used with aspirating discharge devices (foam chambers, nozzles,…) with low or medium expansion.

Application of Silvara K6 by foam achieves excellent extinguishing and re-ignition times in hydrocarbon fuels fires. Obviously due to it is not a film forming foam, the application with fog/stream nozzles isn´t so effective as with AFFF foam concentrates.

3. DOSAGE

Silvara K6 can be easily proportioned using most conventional proportioning equipment such as: balanced pressure pump and bladder tank proportioners, around the pump type and ventures proportioners, and handline nozzles with fixed induction/pickup tubes.

4. PHYSICAL PROPERTIES OF FOAM CONCENTRATE

Appearance	Amber liquid
Density, 20ºC	1,043±0,01 g/cm^3
pH, 20ºC	8,0±1,0
Viscosity, 375 s^{-1}, 20°C	≤ 10mPa.s
Freezing point	≤ -3° C

5. PROPERTIES OF FOAM SOLUTION

Induction Rate	6%
Surface tension, mN/m (6%, Deionized water)	≤ 30
Interfacial Tension, mN/m (6%, Cyclohexane)	≥2
Low expansión index (6%, Fresh Water)	≥ 7
Drainage Time 25%	≥8’
Medium expansion index (6%, Fresh Water)	≥ 70
Drainage Time (25%)	≥ 9’

6. FIRE PERFORMANCE

Silvara K6 fulfills the requirements of the CAA-UK (Civil Aviation Authority of United Kingdom) according to ICAO Standard: Level B (6% fresh water) with Jet A1.

7. COMPATIBILITY WITH OTHER CONCENTRATES

The NFPA standards (NFPA 412, Paragraph 214 and NFPA 11B, 1-5.2) prohibits the mixing of AFFF concentrates unless it has been determined that they are compatible.

The MIL-F24385C standard provides a formalized method of compatibility determination but the Freeze Protected AFFF fall outside the military specification.

vs FOCUM recommends the following test: Silvara products are considerate compatible in all proportions with the concentrates furnished by other manufacturers when the mixture of them, after having been aged 10 days at 65°C, maintain its properties of foamability and fire performance at least equal of the worst concentrate involved in the mixture and to use the higher induction rate and to the higher minimum usable temperature of the mixing concentrates.

8. COMPATIBILITY WITH MATERIALS

SILVARA K6 is compatible with Standard Carbon Steel “black” pipe and pipe manufactured from various Stainless Steel (304 and 316) or Brass Compounds. Other recommended materials are Polyethylene and Aluminum. Avoid using galvanized pipes and fittings, it can cause corrosion.

9. SHELF LIFE

The factors affecting shelf life and stability for this foam concentrate are: wide temperature changes, handling procedures, extreme high or low temperatures and contamination by odd materials.

Its shelf life is about 20-25 years if the storage is in accordance with vs FOCUM´s recommendations. According NFPA 11 (12.6), samples of foam concentrates shall be sent to the manufacturer or qualified laboratory for quality condition testing at least annually.

10. STORAGE AND HANDLING

SILVARA K6 concentrate should be stored in the original shipping container or in an other special containers designed for this type of products (stainless steel or epoxy lined tanks).

Place the storage container in an area at temperatures between -2ºC to 50°C.

If the product is frozen during storage or transportation, thawing will render the product completely usable. Mixing after freeze thaw cycle is recommended.

11. ENVIRONMENTAL AND TOXICOLOGICAL PROPERTIES

-Aquatic Toxicity. The aquatic life, neither sensitive species nor tolerant ones, is not adversely affected by the use of SILVARA K6.

-Biodegradability. SILVARA K6 has a biodegradability at 28 days up to 75%, so it is an easily biodegradable product.

12. ORDERING INFORMATION

Silvara products are available in plastic Pail (20, 25 or 60 L), Drum (200 L), Container (1000 L) and Bulk.