SAFEGUARD BIOSOLV^{C6} AFFF-6%

(AQUEOUS FILM FORMING FOAM)

SAFE GUARD®
Equip to face fire

TECHNICAL DATA SHEET AS PER UL 162:2018 & ICAO LABEL-C

1. PRODUCT & BRAND

PRODUCT : Aqueous Film Forming Foam (AFFF)
BRAND NAME : SAFEGUARD BIOSOLV^{C6} AFFF-6%

2. PRODUCT DESCRIPTION

SAFEGUARD BIOSOLV^{C6} AFFF-6% is a superior quality firefighting foam concentrate for extinguishing and securing non-polar hydrocarbon fuel. It is non-toxic, non-hazardous & biodegradable and thus environment friendly.

Formulation: It is formulated with environmentally benign C6 based Fluor surfactants free of PFOA & PFOS, hydrocarbon surfactants, solvents, stabilizer & preservative.

Mixing ratio: AFFF-6% shall be diluted with water as 6 parts AFFF & 94 parts water (Potable/sea water)

How AFFF Works:

i. AFFF produces a thin aqueous film on the fuel surface to suppress fuel vapours.
ii. Stable foam blanket separate the fuel from oxygen to prevent re-ignition.
iii. It cool the fuel surface with water content releasing from the foam bubbles that reduce or remove energy required for re-ignition.

Compatibility: Compatible with all dry chemical powders extinguishing agents.

Advantage: It has superior knock down, burn back properties and post fire security.

3. APPLICATION

Safeguard AFFF can be used with low and medium expansion discharge devices for covering and extinguishing class-A fires like wood, paper, plastic etc. and class-B fires involving non-polar fuel like crude oil, petrol, heptane, diesel, kerosene etc.

4. AREAS OF APPLICATION

It is used in high risk areas where various types of hydrocarbon fuels and chemicals are stored, processed, or transported. Typical applications include fuel storage tanks, process areas, power stations, marine terminals and offshore platforms.

TYPICAL PROPERTIES (Contd.)

01.	Appearance	Amber colour
02.	pH	6-8.5
03.	Viscosity	200 Cst (Maximum)
04.	Specific Gravity	1.02±0.02
05.	Sludge content	0.5% (Max)
06.	Expansion	6-10
0		
08.	Film forming test	> 0
	RE PERFO	
09.	Fire extinction	≤ 3 min
10.	Torch Test	
11.	Burn back resistance	≥ 5 min

FIRE PERFORMANCE TESTS AS PER ICAO-LEVEL C

12.	Fire extinction	≤ 1 min
13.	Burn back resistance	≥ 5 min

6. ENVIRONMENTAL IMPACT

SAFEGUARD BIOSOLV^{C6} AFFF-6% is non-toxic, non-hazardous & biodegradable and thus environment friendly. However, care shall be taken to prevent discharge of AFFF/premix solution into ground water, surface water or storm drain. AFFF waste disposal should be made in accordance with central, state and local regulations. It may be disposed of by treatment at a permitted facility only with permission or as advised by competitive authority.

7. INSTRUCTION FOR USE

- Avoid use on electrical fires and on fires involving chemicals that react dangerously with water.
- Avoid getting chemicals on you or in you.
- Use tightly sealed safety glass or goggles for eye protection, use PVC/Nitrile or butyl rubber gloves, apron and rubber boots for skin protection.

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8. PROPORTIONING

SAFEGUARD BIOSOLV^{C6} AFFF-6% can be correctly proportioned using most conventional, properly calibrated, in line proportioning equipment such as:

- Balanced and in-line balanced pressure pump proportioners.
- Balanced pressure bladder tanks and ratio flow controllers.
- Around-the-pump type proportioners.
- Fixed or portable in-line venturi type proportioners.
- Hand line nozzles with fixed eductor/pick-up tubes.

9. STORAGE & HANDLING

i. General conditions:

The storage place shall be free from dampness and shall be well ventilated and the containers shall not be directly exposed to the sunrays. The HDPE container shall be preferably stacked in single layer and shall not exceed more than 2 layers.

Recommended storage temperature: 0^0C to 49^0C

ii. Storage tanks for bulk storage:

Foam concentrates are suitable for transferring into bulk storage tank for long term storage but these should be normally be kept full, with space (5-10% of tank volume) should be maintained for thermal expansion coefficient of material of construction and foam concentrate. Inlet pipe work should be located at the base of storage tank to avoid excessive foaming during filling. Outlet pipe work should be located above the base of the tank to avoid clogging in the event of sediment that might have formed.

iii. Materials of construction:

Storage tank should be fabricated or based with the following materials:

- Mild Steel having internal epoxy coating
- Stainless Steel: 604 and 616 (HIGHLY RECOMMENDED)
- Glass Reinforced Plastic (GRP) : Fiberglass with Isophthalic Polyester Resin, Expoxy Resin or Vinylester Resin (Premium).Not recommended for foam systems involving pressure displacement
- Polyethylene : High density cross linked polyethylene (HDPE) (HIGHLY RECOMMENDED)

10. LISTING/MARKING

UL Listed
Conforming to ICAO Level-C

12. AVAILABLE PACKINGS

20 L, 30 L & 200 L HDPE containers or as per customer's specifications.

20 L (Rectangular in shape)
Approx. dimension:
L-265 mm
W -230 mm
H – 410 mm

30 L (Rectangular in shape)
Approx. dimension:
L-300 mm
W -290 mm
H – 470 mm

200 L (Cylindrical in shape)
Approx. dimension:
D: 595 mm
H – 915 mm

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