



Chemist of Fire Fighting

S&P SAFETY PRODUCTS PVT. LTD.



**Alcohol Resistant
Aqueous Film Forming Foam**

AR AFFF 1/3%

AR AFFF 3/3%

AR AFFF 3/6%



Alcohol Resistant Aqueous Film Forming Foam (AR AFFF)

- ◆ Quickest surface sealing and flame knockdown by blocking oxygen supply to the fuel.
- ◆ Environment friendly.
- ◆ Based on the latest C6 chemistry.

TYPES

- ◆ **SP AR AFFF 1/3** (AR AFFF 1/3%) Hydrocarbon fire: 1 volumes of concentrate with 99 volumes of water (1% Induction Rate)
Polar solvent fire: 3 volumes of concentrate with 97 volumes of water (3% Induction Rate) for extinguishing
- ◆ **SP AR AFFF 3/3** (AR AFFF 3/3%) Hydrocarbon and Polar solvent fire: 3 volumes of concentrate with 97 volumes of water (3% Induction Rate)
- ◆ **SP AR AFFF 3/6** (AR AFFF 3/6%) Hydrocarbon fire: 3 volumes of concentrate with 97 volumes of water (3% Induction Rate)
Polar solvent fire: 6 volumes of concentrate with 94 volumes of water (6% Induction Rate) for extinguishing

PRODUCT DESCRIPTION

SP AR AFFF is a nontoxic foam concentrate in the form of a clear liquid with no stratification or turbidity. It has the most advanced foam formulation in low and medium expansion foam for effective extinguishment of Class A and B fires (both hydrocarbon & polar solvent). **SP AR AFFF** is specially formulated to make sure that the product is reliable for its ultimate fire management performance. **SP AR AFFF** consists of effective surfactants so as to have superior knockdown properties on all water miscible as well as immiscible fuel fires at a very low application rate.

FIRE-FIGHTING PROCESS

Based on C6 chemistry, **SP AR AFFF** forms a cohesive thin polymeric film at the interface between foam and water-soluble polar solvents (Alcohols, Esters & Ketones/Aldehydes etc. so that flammable vapours are fully suppressed with very thin layer of foam blanket. The excellent sealing characteristic of this polymeric film makes it regenerate itself, when disturbed and broken.

COMPATIBILITY

SP AR AFFF is proved to be compatible with a wide range of conventional foams including protein-based products and hence can be applied as a twin- agent system with other types of foams and dry chemical powders. **SP AR AFFF** is suitable for use in combination with soft or hard, fresh, brackish or sea water.

APPLICATIONS

- ◆ High risk situations where Class B hydrocarbons such as crude oil, diesel, gasoline and aviation kerosene with low water solubility are stored, processed, or transported (E.g. Refineries & Petrochemicals Plants)
- ◆ Crash Tenders/Rapid Intervention Vehicles (RIV)/Monitors/Portable Foam Extinguishers etc.
- ◆ Stores, ware-houses, tanker loading areas and other local risk involving a spilled fuel fire
- ◆ Tank farms, Power Plants, Steel Plants
- ◆ Sub-surface injection including hose-reel installations, flammable liquid tank fires
- ◆ Fire suppression systems at Airforce base, Airports, Sea Airports and Navy ships and docks
- ◆ Fire Extinguisher Manufacturers
- ◆ Deep-seated fires in Jute, Cotton, Wood, Coal, Rubber, Plastics and similar materials

STORAGE

SP AR AFFF has been formulated by world class preservatives, Acid- Alkaline buffer, other foam stabilizer to give a very long storage life. A shelf-life of at least ten years can be expected if it is stored properly at recommended temperatures and atmospheric condition, in original containers.

SPECIFICATIONS

Property	SP AR AFFF-1/3%	SP AR AFFF-3/3%	SP AR AFFF-3/6%
Appearance	Amber Colour	Amber Colour	Amber Colour
pH@20°C	6.5-8.5	6.5-8.5	6.5-8.5
Sp gravity@20°C	1.00±10%	1.00±10%	1.00±10%
Miscibility Distilled water Synthetic Sea Water	Miscible Miscible	Miscible Miscible	Miscible Miscible
Surface Tension (dyn/cm)	Less than 18	Less than 18	Less than 18
Spreading Coefficient	More than 3	More than 3	More than 3
Pour Point	Freely move at 0°C or below		
* Lowest use Temperature	0°C	0°C	0°C
Viscosity @20°C	Maximum 1200 cst	Maximum 1200 cst	Maximum 1200 cst
Freezing and Thawing (Sedimentation fiction) No Sedimentation / Stratification after freezing and Thawing at (-) 5 °C to 60°C	No Sedimentation / Stratification after freezing and Thawing at (-)0°C to 60°C		
** Expansion Ratio	6.00 to 10.00	6.00 to 10.00	6.00 to 10.00
** Drainage (25%)	Min 180sec	Min 180sec	Min 180sec

*For extreme sub-zero conditions, **SP AR AFFF** can be specially formulated for extreme sub-zero conditions where a concentrate is required to be 'freeze protected' to minus 30°C or even less.

* Also available in freeze protected type

** Value depends on equipment used and system parameters

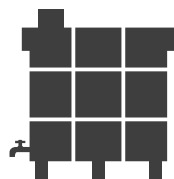
PACKING



Jerrycan
20/25/30 Ltr.



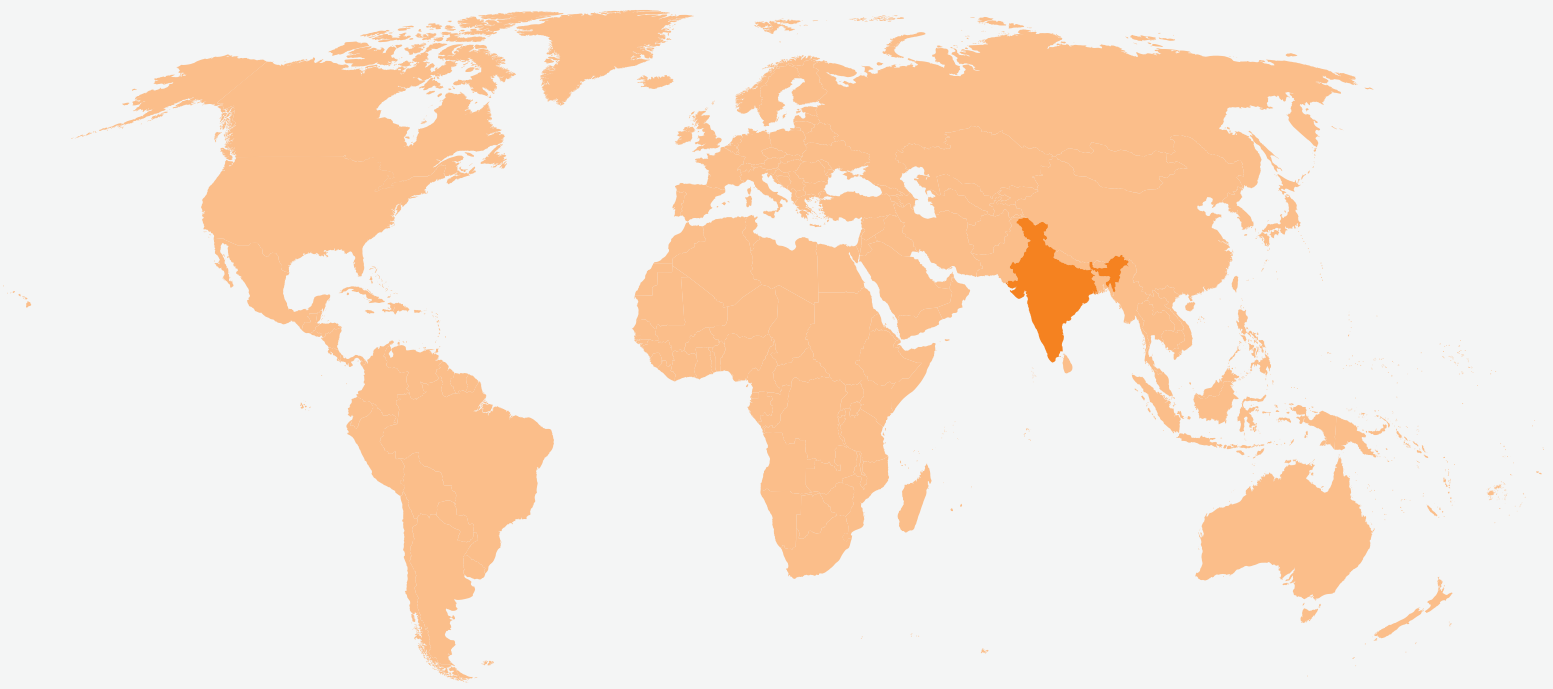
Drum
200 Ltr.



IBC
1000 Ltr.

APPROVALS





**State of the Art
Technology Formulation**



**National and
International Certifications**



**Complete in-house
manufacturing**

Managed by : VARIA FIRETECH INDUSTRIES



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