



Chemist of Fire Fighting

S&P SAFETY PRODUCTS PVT. LTD.



**Alcohol Resistant
Film Forming Fluoro Protein Foam**

**AR FFFP 3/3%
AR FFFP 3/6%**



Alcohol Resistant Film Forming Fluoro Protein Foam (AR FFFP)

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

TYPES

- ◆ **SP AR FFFP 3/3** (AR FFFP 3/3%) Hydrocarbon and Polar solvent fire: 3 volumes of concentrate with 97 volumes of water (3% Induction Rate)
- ◆ **SP AR FFFP 3/6** (AR FFFP 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 FFFP 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). A protein base material provides a tough cohesive foam blanket with high resistance to heat that provides the same post-fire security as any top quality FluoroProtein (FP).

SP AR FFFP is specially formulated to make sure that the product is reliable for its ultimate fire management performance. **SP AR FFFP** 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

Fluoro-chemical surface active agents combined with protein base produce a vapour sealing aqueous film on hydrocarbons that provides rapid extinguishment. On polar solvents (Alcohols, Esters & Ketones / Aldehydes etc.), a cohesive thin insoluble polymer membrane is formed at the interface between foam and water-soluble polar solvents which protects the foam blanket from the solvent. The designed self-sealing polymeric film re-seals any disturbed or broken surface of itself on the burning liquid.

COMPATIBILITY

SP AR FFFP 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 with other types of foams and dry chemical powders. **SP AR FFFP** is suitable for use in combination with soft, hard, fresh, brackish or sea water.

APPLICATIONS

- ◆ Air aspirating discharge devices such as low expansion branch pipes, monitors, top pourer sets.
- ◆ Hydrocarbon storage tank fires.
- ◆ Non-aspirating discharge devices such as spray/fog branch pipes and nozzles, monitors, and spray/fog sprinklers. Non-aspirated application is not recommended as the primary method of attack for major fires.

STORAGE

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

SPECIFICATIONS

Property	SP AR-FFFP-3/3%	SP AR-FFFP-3/6%
Appearance	Brown Colour	Brown Colour
pH@20°C	6.0-8.0	6.0-8.0
Sp gravity@20°C	1.10±10%	1.10±10%
Miscibility Distilled water Synthetic Sea Water	Miscible Miscible	Miscible Miscible
Surface Tension (dyn/cm)	Less than 18	Less than 18
Spreading Coefficient	More than(+) 0	More than(+) 0
* Lowest use Temperature	0°C	0°C
Pour Point	Freely move at 0°C or below	
Viscosity @20°C	To be declared by manufacturer	
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
** Drainage (25%)	Min 180sec	Min 180sec

* Also available in freeze protected type

** Value depends on equipment used and system parameters

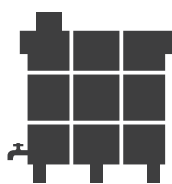
PACKING



Jerrycan
20/25/30 Ltr.



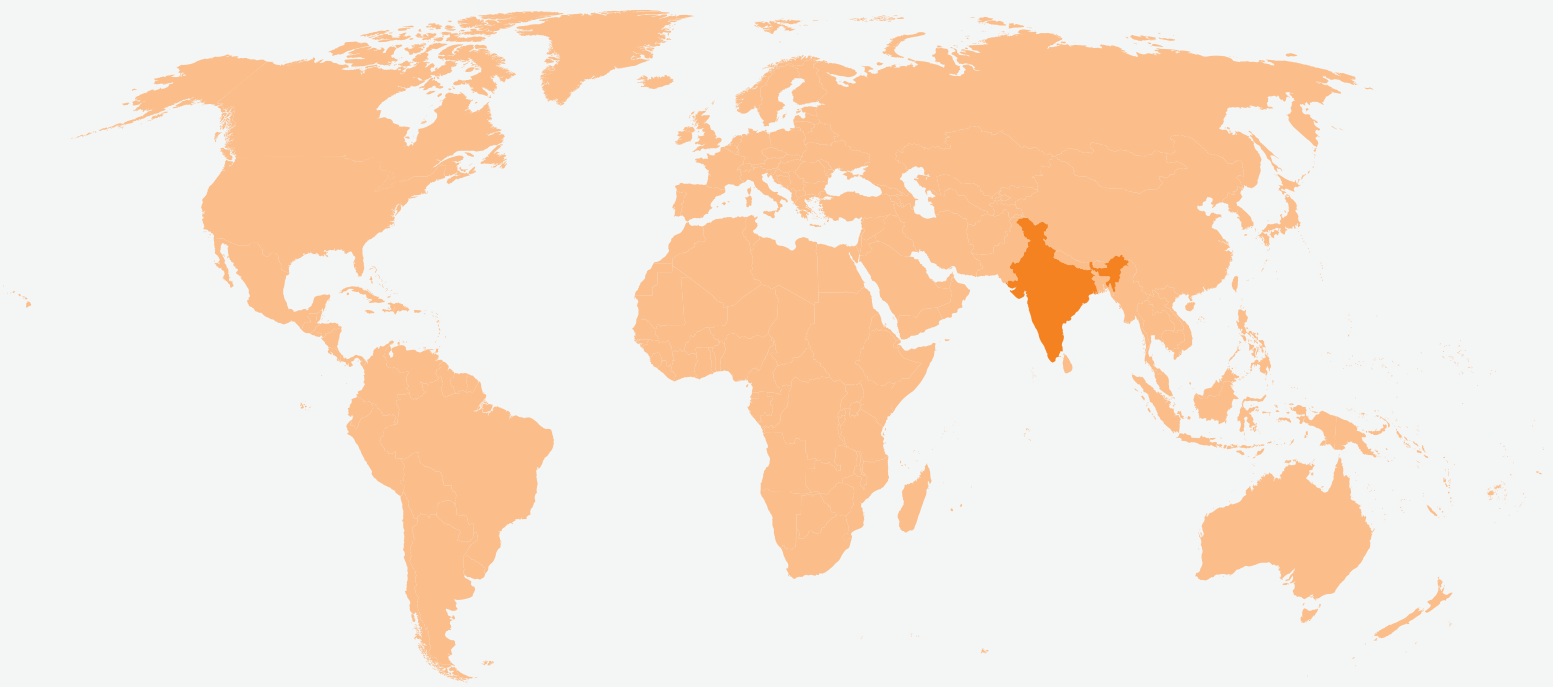
Drum
200 Ltr.



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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