

**DATA SHEET**  
**#AFC180**

**ALCOSEAL**  
**3-3% AR-FFFP**

***Description***

Angus Alcoséal 3-3% is an all-purpose Alcohol Resistant Film Forming Fluoroprotein Foam, highly effective against a wide range of hydrocarbons and polar solvents. Alcoséal 3-3% is used at 3% on both hydrocarbon and water-soluble fuels. Alcoséal gives rapid control and post extinction security. Its excellent resistance to water soluble solvents is due to the formation of a cohesive polymeric membrane formed on the fuel surface which protects the foam from polar fuels. It also has exceptional knockdown properties on hydrocarbon fuels even when applied forcefully.

***Performance Characteristics for Polar Solvent Fires***

Alcoséal 3-3% gains rapid extinction even on difficult water-soluble fuels when compared to other all-purpose foam compounds. When used against deep layers of fully water-soluble solvents, gentle application is recommended to obtain maximum efficiency. With shallow spill fires, the foam is effective using forceful application with standard nozzles or monitors. Alcoséal 3-3% is used at a 3% proportioning rate on all fuels.

***For Hydrocarbon Fires***

Highly effective on hydrocarbon liquids giving exceptional extinction times and providing excellent burnback resistance and stability with effective sealing against hot edges. Due to its film forming characteristics, it may be applied

unaspirated from fixed or portable equipment onto spill fires.

***Applications***

Alcoséal 3-3% is designed for use against water-soluble solvents or in "mixed" risk situations involving polar solvents and hydrocarbon liquids. Typical applications include municipal fire departments, petrochemical complexes, chemical cargo vessels, petroleum/alcohol blending plants and all manufacturing industries dealing with water-soluble solvents.

***Recommendations for Use***

Alcoséal 3-3% is suitable for use with all standard types of low/medium expansion foam equipment or as a nonaspirated spray against hydrocarbon spills. It is fully premixable and is non-corrosive with a storage life in excess of 10 years when the concentrate is kept in its original shipping containers. Foam properties are not affected by freezing and subsequent thawing of the foam concentrate.

The presence of alcohol resistant polymers in the concentrate produces a high initial viscosity, which rapidly decreases under conditions of flow. This allows standard induction equipment to be used with normal handling procedures.

## Typical Physical Properties

Specific Gravity @ 68°F (20°C).....	1.080
pH @ 68°F (20°C) .....	7.5
Viscosity.....	Alcoseal is Shear Thinning
Maximum Usable Temperature .....	120°F (49°C)
Minimum Usable Temperature .....	35°F (2°C)
Freeze Point.....	19°F (-7°C)
Film Forming.....	Yes

## General Guidelines

Flammable liquids range from hydrocarbons with little or no foam destroying action, to highly destructive polar solvents which attack foam. The options for the methods of foam attack depend on the degree to which the fuel will destroy the foam.

Flammable Liquid	Foam Destroying Action	Fire Fighting Methods	Application Rate range (gpm/ft <sup>2</sup> )	Application Rate range (lpm/m <sup>2</sup> )
Heptane, Leaded Gasoline, Unleaded Gasoline, Kerosene, Avgas, Benzene**, Toluene**, Xylene**, Naphtha, Cyclohexane, Diesel Fuels, Gas Oil	None	A	0.10 – 0.12	4 - 5
Amyl, Acetate, Butyl Acetate, Ethyl Acetate, Methyl, Isobutyl Ketone, Di-isobutyl Ketone Cyclohexanone, Pentanol, Ethane Diol, Ethylene Diamine, Monoethylene Glycol, Vegetable Turpentine	Slight	B	0.10 – 0.12	4 - 6
Acrylonitrile, Acetone, N-Butanol, Iso-Butanol, Tertiary Butyl Alcohol, Methanol, Ethanol, Iso-Propanol, Industrial Methylated Spirits, Dimethyl Formamide, Ethyl Lactate, Ethylene Glycol Monobutyl Ether, Diethylamine*, Cyclohexylamine*, Diethyl Ether*, Trimethylchlorosilane*, Methyl Tertiary Butyl Ether, Ethyl Tertiary Butyl Ether	Moderate	C	0.12 – 0.20	5 - 8
Ethylamine*, Isopropylamine*, Acetic Acid, Propylene Oxide*	Severe	D	0.22 – 0.30	9 - 2

\* Products with high flammability low flash-point may require foam application rates of 0.25 gpm/ft<sup>2</sup> (10 lpm/m<sup>2</sup>) or more.

\*\* Sub-surface application may require above normal application rates.

Method A - Foam using type I, II, or III application, foam spray, non-aspirated spray and sub surface foam injection.

Method B - Foam using type I, II, or III application (Type III may require high application rates for extinction) foam spray.

Method C - Foam using type I, or II application.

Method D - Foam using type I, or II application (Type II may require high application rates for extinguishment).

## Ordering Information

CONTAINER	SHIPPING WEIGHT	PART NUMBER
<b>5-Gallon Pails</b>		
(19 liters) .....	48 lb. (21.8 kg) .....	3130-7340-6
<b>55-Gallon Drums</b>		
(208 liters) .....	521 lb. (236.3 kg) .....	3130-7481-6
<b>275-Gallon IBC Reusable Tote Tank</b>		
(1041 liters) .....	2637 lb. (1196.1 kg) .....	3130-7725-6
<b>Bulk</b> .....	9.1 lb./gal (1.08 kg/l) .....	3130-7001-6

Palletizing of pails and drums is available upon request.

### Shipping Cube

5-Gallon Pail .....	1.13 cu. ft. (0.032 cu. m.)
55-Gallon Drum.....	11.51 cu. ft. (0.326 cu. m.)
275-Gallon IBC Tote Tank.....	51.11 cu. ft. (1.061 cu. m.)

This information is only a general guideline. The company reserves the right to change any portion of this information without notice. Terms and conditions of sale apply and are available on request.

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