

DuPont™ Forafac® 1157

AFFF Fluorinated Surfactant

Forafac® 1157 is an amphoteric perfluorinated surfactant, whose main property is to significantly reduce the surface tension of aqueous solutions.

This fluorinated surfactant enables the formation of an aqueous film that is distributed over the whole surface of the hydrocarbon.

Forafac® 1157 is widely used as a film forming agent in fire fighting foam concentrates against hydrocarbon and polar liquid fires (in the case of an alcohol-resistant fire fighting foam).

Physical Characteristics

Please refer to product specifications data sheet for guaranteed commercial specifications.

Appearance	Clear amber-colored liquid
Chemical structure	Perfluoroalkyl betaine
Active matter, wt%	27
Solvent	Ethanol/water
Density at 20°C (68°F)	1.03
pH	5.5
Flash point (closed cup)	25°C (77°F)

General Properties

Solubility at ambient temperature:	
Water	Soluble
Ethanol	Soluble
Ethylene glycol	Soluble
Viscosity at 20°C (68°F)	6 mPa·s

Foaming Power (Ross-Miles Method)

Concentration of Forafac® at 0.5 g/L	mL of Foam After		
	30 sec	3 min	5 min
Deionized water	540	510	485
Tap water	330	310	310
Artificial seawater	185	180	180

Surface Tension at 25°C (77°F) in Aqueous Solution (mN/m)

Forafac® 1157	0.01%	0.05%	0.1%
Surface tension	20.5	16.0	15.5

Applications

Forafac® 1157 is a film forming fluorinated surfactant used in aqueous film forming foam (AFFF), film forming fluoroprotein foam (FFFP), and alcohol-resistant foams AFFF-AR/FFFP-AR (against hydrocarbons and polar liquids fires).

Precautions—Toxicity

Like any other chemical product, fluorinated surfactants must be handled and used with care (any contact with the skin and eyes is to be avoided).

A safety data sheet is available on request.

Interfacial Tension at 25°C (77°F) (mN/m)

	Cyclohexane	Essence F-5	n-Heptane	n-Hexane
Water	40.5	44.5	47.5	48
Water + 1 g/L of F1157	4.2	4.1	3.7	3.3

U.S. Sales and Services

For placing orders or requesting additional product information, please use our convenient 24-hour, toll-free telephone number. If you prefer, you can write to us.

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