

# DuPont™ Forafac® 1199D

## FLUORINATED SURFACTANT

### TECHNICAL INFORMATION

#### Description

DuPont™ Forafac® 1199D is a fluorinated polymer designed to be incorporated into hydrolyzed protein to increase oil repellency and fluidity of the foam. It is made through a telomerization process and not an electrofluorination process.

#### Applications

DuPont™ Forafac® 1199D enables the formulation of FP foam concentrate. FFFP-AR formulations require Forafac® 1157 or Forafac® 1157 N to be added for film formation.

Recommended concentrations in foam concentrates:

- for 3% FP foam concentrates:  
0.6–1.5 wt% of Forafac® 1199D

#### Benefits

Fire fighting foams made with DuPont™ Forafac® fluorinated surfactants extinguish fires quickly, protecting assets and personnel. The effectiveness of our products means that a smaller quantity of foam can be used to put out a fire which results in less waste water.

Our products enable our customers to formulate foam concentrates which meet the highest international standards (UL, EN, US MilSpec). We have strong technical service, both in chemistry and in formulations, and provide formulation guidelines for many types of foam concentrates.

#### Physical Characteristics

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

Appearance	Pink to purple liquid
Chemical structure	Fluorinated polymer
Active matter, wt%	18.5–21.5
Solvents	N-methyl pyrrolidone 1–5 wt% 2-methylpropan-2-ol <5 wt%
Density at 20°C (68°F)	1.08
pH	3.0–5.0
Flash point, °C	Does not flash
Boiling point, °C	98–100
Freezing point, °C	5–0

#### General Properties

Solubility at ambient temperature:

Water	Soluble
Alcohol	Insoluble
Hydrocarbon	Insoluble
Surface tension at 1 g/L in deionized water at 25°C	20±3 mN/m
Interfacial tension at 25°C (77°F) between n-Heptane and a solution at 0.5 g/L of Forafac® 1199D	8.5 mN/m



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## Personal Safety, First Aid, Storage and Handling

See the Material Safety Data Sheet (MSDS) for specific product information. Normal care should be taken to avoid skin and eye contact. Before using this product, please read the current MSDS and the precautionary statement on the product package. Follow all applicable directions.

## Ordering Information

To place an order for DuPont™ Forafac® 1199D, for help in selecting or evaluating these products for your application or for additional literature or a product sample, please contact the local DuPont representative office in your region.

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