

FluoSurf-CTM

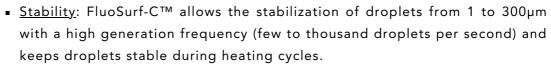
Fluorinated Surfactant

OVERVIEW

FluoSurf-CTM is a high-performance fluorinated surfactant designed and optimized to stabilize aqueous droplets in fluorinated oils (proposed by Emulseo) for chemical or biotechnological applications. FluoSurf-CTM is an inert block copolymer designed to stabilize droplets containing biological compounds. It is particularly suitable for droplet-based microfluidic experiment such as droplet digital polymerase chain reaction (ddPCR) or single cell analysis.

BENEFITS







■ <u>Biocompatibility</u>: FluoSurf-CTM is biocompatible and can be used to stabilize droplets containing biochemical compounds or biological entities.



Purity: Thanks to a well-established optimized synthesis, FluoSurf-C™ is obtained with a high purity.



<u>Leakage control</u>: Thanks to the high purity, hydrophilic and hydrophobic molecules can be efficiently contained within droplets.



■ <u>Reproducibility</u>: FluoSurf-CTM production is perfectly reproducible. Each batch is tested for structure and performance following strict quality control specifications. A certificate of analysis can be delivered for each batch and is available on the website.



 <u>Production of large volumes</u>: Our capacity to produce in large quantities allows us to meet all your needs.



■ <u>IP freedom to operate</u>

PRODUCT SPECIFICATIONS

• Interfacial tension at 4wt%

in HFE 7500 ----- 10 mN/m
CMC in HFE 7500 ----- 0.2 w/w%

• Hazards ----- Not classified hazardous. SDS available on the Emulseo website

• **Biocompatibility** ------ Biocompatibility has been tested with plankton, yeast, E. Coli and mammalian



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RECOMMENDATION

FluoSurf-C[™] has to be diluted in a fluorinated oil (i.e. Fluo-Oil 7500, Fluo-Oil 40, Fluo-Oil 200, Fluo-Oil 135) overnight before to use.

FluoSurf- C^{TM} can be delivered neat or diluted at the desired concentration in a fluorinated oil as a ready to use formulation.

To minimize binding interactions, Emulseo recommends performing a fluorophilic surface treatment (Fluo-ST1 or Fluo-ST2 provided by Emulseo) on the microfluidic chips before using FluoSurf-C™ diluted in fluorinated oil as the continuous phase.

At high or fluctuating temperatures (dPCR), 4w/w% concentration is recommended in order to improve droplet stability.

It is advised to collect water-in-fluorinated oil droplets into a plastic container as the hydrophilic surface of glass containers could disrupt droplet stability.

Example of a 4w/w% FluoSurf-C™ dilution in 10 mL Fluo-Oil 7500:

Fluo-Oil 7500 density = 1.61 g/mL

10 mL x 1.61 g/mL= 16.1g Fluo-Oil 7500 4w/w% FluoSurf-CTM = (0.04x16.1)/(1-0.04) = 0.671g

Weight 0.671g of FluoSurf-C $^{\text{TM}}$ neat and add 16.1g of Fluo-oil 7500.



STORAGE

When diluted in a fluorinated oil, FluoSurf- C^{TM} should be stored at room temperature protected from light for 6 months.

FluoSurf-C™ neat can be stored at room temperature for one year.

CONTACT

If you have any queries, please do not hesitate to e-mail us at: contact@emulseo.com