



Technical Data Sheet

XIAMETER™ OFX-193S Fluid for Cosmetic Use

INCI Name: PEG-12 Dimethicone

Features & Benefits

- Low usage levels
- Compatible with a wide range of cosmetic ingredients
- Foam builder; forms a dense, stable foam
- Plasticizes hair styling resins
- Wetting agent
- Surface tension depressant
- Imparts soft, silky feel to the hair
- Humectant, emollient in skin products

Applications

Suitable for a wide range of applications in personal care products including:

- Hair sprays and other leave in hair products
- Shampoos
- Skin care lotions
- Shaving soaps

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Value
Appearance		Clear to hazy liquid, light amber color, no significant particulate
Color	Gardner	0-4
Viscosity at 25°C	cSt	260
Specific Gravity at 25°C (77°F)		1.07
Cloud Point	°C	95-100

Description

XIAMETER™ OFX-193S Fluid for cosmetic use is a silicone polyether copolymer (see Figure 1 for chemical formula).

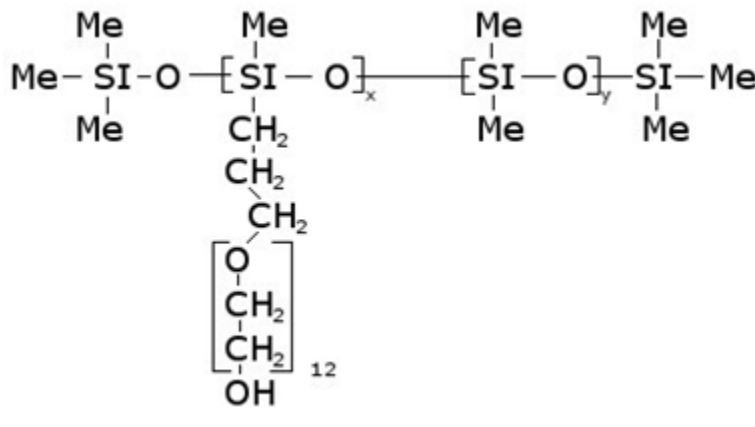


Figure 1: Chemical Formula For XIAMETER™ OFX-193S Fluid for cosmetic use.

XIAMETER™ OFX-193S Fluid for cosmetic use is a graft style hydrolytically stable silicone polyether surfactant with a calculated HLB of 12 (calculated by utilizing the wt% of EO/5 method).

How to Use

XIAMETER™ OFX-193S Fluid for cosmetic use is soluble in water, alcohol and hydroalcoholic systems. It is stable in water systems. It can be added to heated mixtures up to 90°C (194°F).

As ingredient in glass cleaners XIAMETER™ OFX-193S Fluid for cosmetic use is suggested to begin evaluations at levels of 0.5 and 2.0 weight percent.

Table 1

Typical usage levels of XIAMETER™ OFX-193S Fluid for cosmetic use to obtain the desired effect in skin and hair care products.

Product Type	Desired Effect	Usage Level %
Hair Spray	Lustre/Detackification/Hold	0.1–1.0
Shampoo	Combing Ease/Manageability/Silky Feel	1.0–5.0
Pre-shave Lotion	Emolliency	1.0–3.0
Aerosol Shaving Lather	Emolliency/Foam Stability/Wetting	0.2–2.0
Skin Lotions	Emolliency/Lubricity/Wetting	0.1–2.0
Perfumes, Colognes	Wetting/Feel	0.1–0.5

Table 2

Surface tension comparison with XIAMETER™ OFX-193S Fluid for cosmetic use.

Distilled Water, mN m ⁻¹	72.8
XIAMETER™ OFX-193S Fluid for cosmetic use , 1% Solution, mN m ⁻¹	26-28

Table 3

Foam building ability with XIAMETER™ OFX-193S Fluid for cosmetic use.

Surfactant System, 3% XIAMETER™ OFX-193S Fluid for cosmetic use	
Initial Height of Foam, mm	0
Final Height, After 8 Minutes, mm	50.8

Table 4

Compatibility of XIAMETER™ OFX-193S Fluid for cosmetic use with various cosmetic ingredients.

Type of Material	
Water	C
Ethanol (70%)	C
Stearyl Alcohol	C
Beeswax	I
Glycerol	I
IPM	C
Lanolin	I
Mineral Oil	I
Paraffin Wax	I
Stearic Acid	C
Dimethicone, 350 cS	I

At Room Temperature
C=Compatible, I=Completely or partially immiscible

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

Product should be stored at or below 25°C (77°F) in original, unopened containers. The most up-to-date shelf life information can be found on the Dow web site in the Product Detail page under Sales Specification.

When stored at temperatures below 11°C (52°F) XIAMETER™ OFX-193S Fluid for cosmetic use will become hazy and solidify to a soft wax. This effect is reversed upon heating and is common to silicone glycol copolymers.

Repeated freeze thaw cycles have no effect on product performance.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

dow.com

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