



Technical Data Sheet

XIAMETER™ OFX-0193 Fluid

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

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XIAMETER™ OFX-0193 Fluid

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Description

XIAMETER™ OFX-0193 Fluid is a silicone polyether copolymer (see Figure 1 for chemical formula).

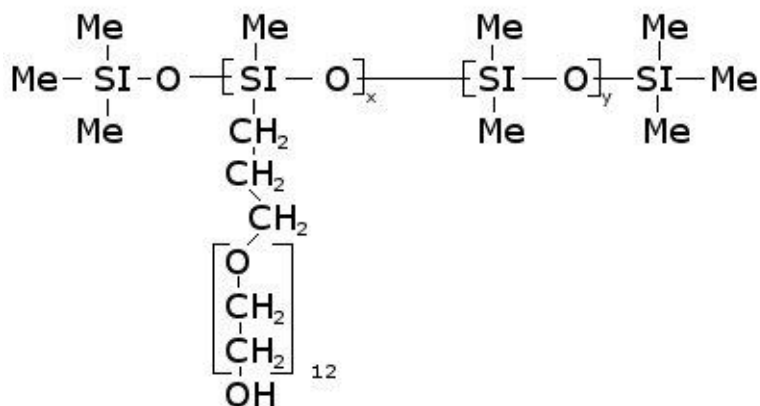


Figure 1: Chemical Formula For XIAMETER OFX-0193 Fluid.

XIAMETER OFX-0193 Fluid 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-0193 Fluid 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-0193 Fluid is suggested to begin evaluations at levels of 0.5 and 2.0 weight percent.

Table 1

Typical usage levels of XIAMETER OFX-0193 Fluid 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-0193 Fluid.

Distilled Water, mN m ⁻¹	72.8
XIAMETER OFX-0193 Fluid , 1% Solution, mN m ⁻¹	26-28

Table 3

Foam building ability with XIAMETER OFX-0193 Fluid.

Surfactant System, 3% XIAMETER OFX-0193 Fluid	
Initial Height of Foam, mm	0
Final Height, After 8 minutes, mm	50.8

Table 4

Compatibility of XIAMETER OFX-0193 Fluid 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 WWW.CONSUMER.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-0193 Fluid 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.

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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, www.consumer.dow.com or consult your local Dow representative.

<http://www.xiameter.com>

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