



Technical Data Sheet

XIAMETER™ OFX-0190 Fluid, Personal Care

INCI NAME: PEG/PPG-18/18 Dimethicone

Features & Benefits

- Makes very stable formulations
- Good surface tension depressant and wetting agent
- Low usage levels required
- Compatible with a wide range of cosmetic ingredients
- Imparts soft silky feel to the hair
- Ensures smooth wet shaving foams
- Non-irritant to skin

Applications

- Essentially low order of acute toxicity, acts as surface tension depressant and wetting agent in a wide variety of cosmetic and personal care products. Including hair sprays, skin care lotions, perfumes and shaving soaps.
- Stability of water solutions containing up to 5% XIAMETER™ OFX-0190 Fluid, are excellent. Acid or alkaline extremes reduce stability.
- Resin plasticiser in hair styling products.
- Humectant, emollient in skin products.

Typical Properties

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

Property	Unit	Result
Viscosity at 25°C (77°F)	mm s ⁻¹	2000
Flash Point – Closed Cup	°C °F	> 63 > 145
Specific Gravity at 25°C (77°) 115.6°C (60.1°F)		1.037
Color (Gardner Scale)		2
Inverse Solubility Point (1.0% Water Solution)	°C °F	36 97

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XIAMETER™ OFX-0190 Fluid

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Description

XIAMETER OFX-0190 Fluid is a silicone glycol copolymer soluble in water, alcohol and hydroalcoholic systems. It is hydrolytically stable. It is a clear to slightly hazy fluid.

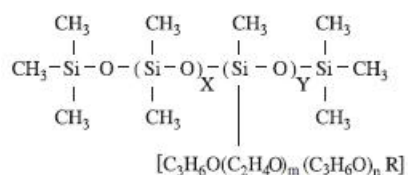


Figure 1: Chemical formula for XIAMETER OFX-0190 Fluid

Regulatory Status

XIAMETER OFX-0190 Fluid is referenced in JCIC under the chemical name Poly (oxyethylene.oxypropylene) methyl polysiloxane Copolymer with the code 521013 in the CLS categories: 1-11: No limit.

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.

Presence of traces of antioxidant in XIAMETER OFX-0190 Fluid helps to optimize XIAMETER OFX-0190 Fluid performances by preventing product degradation when exposed to oxygen. To avoid discoloration of neat XIAMETER OFX-0190 Fluid when exposed to oxygen, XIAMETER OFX-0190 Fluid is packaged in Nitrogen inerted containers. After partial use of XIAMETER OFX-0190 Fluid, it is recommended to re-inert opened containers with N₂.

Usable Life And Storage

Product should be stored at or below 25°C (77°F) in original, unopened containers.

When stored at or below 16°C (61°F) it will become hazy and solidify to a soft wax which reliquifies on warming.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses. Not intended for human injection. Not intended for food use.

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.

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Table 1: Typical use levels of XIAMETER OFX-0190 Fluid for desired effects in various cosmetic products.

Product Type	Desired Effect	Use Level (%)
Hairspray	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	1.0–0.5

Table 2: Surface Tension comparison with XIAMETER OFX-0190 Fluid.

Solution	Units	Value
Distilled water	mN m ⁻¹	72.8
Soap solution	mN m ⁻¹	30–35
Synthetic detergent solution	mN m ⁻¹	28–34
XIAMETER OFX-0190 Fluid Solution	mN m ⁻¹	22–28

Compatibility

Compatibility of XIAMETER OFX-0190 Fluid at room temperature 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

C = Compatible; I = Completely or partially immiscible

<http://www.xiameter.com>

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