



## Technical Data Sheet

### XIAMETER™ OFX-5324 Fluid

INCI Name: PEG-12 Dimethicone

#### Features & Benefits

- Readily formulated into conditioners
- Allows formulation of high viscosity conditioning shampoos
- Imparts soft silky feel to the hair
- Gives improved wet and dry combing

#### Applications

- Surfactant-based products: its solubility characteristics provide the formulator with the means to create clear, conditioning products.
- Conditioning shampoos - provides good wet and dry combing in addition to imparting a silky, soft feel to the hair without build up even after repeated wash cycles.

#### Typical Properties

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

Property	Unit	Result
Physical nature		Liquid
Color		Amber brown
Specific gravity at 25°C/15.6°C		1.04
Viscosity at 20°C	mm <sup>2</sup> /s	400
Flash point -closed cup	°C	60

#### Description

XIAMETER™ OFX-5324 Fluid is a silicone polyether copolymer. It is readily dispersible in cold water and is completely soluble in aqueous surfactant systems.

XIAMETER OFX-5324 Fluid is an essentially low order of acute toxicity fluid that can provide conditioning with a dry and silky feel to the hair especially when formulated into shampoos.

#### How To Use

Disperse XIAMETER OFX-5324 Fluid in surfactant/water system to ensure complete solubilisation. XIAMETER OFX-5324 Fluid has minimal effect on viscosity compared to other silicone polyether copolymers. Too much electrolyte can cause the silicone polyether copolymer to be salted out of the solution.

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XIAMETER™ OFX-5324 Fluid

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## How To Use (Cont.)

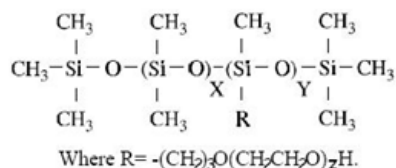


Figure 1: Chemical Formula For XIAMETER OFX-5324 Fluid

### 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](http://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.

### 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](http://www.consumer.dow.com) or consult your local Dow representative.

## Compatibility

Type of material	1:10	1:1	10:1
Water	I	I	I
Ethanol (70%)	C	P	I
Ethanol (95%)	C	C	C
Stearyl alcohol			
above melting point	C	C	C
below melting point	I	I	I
Beeswax			
above melting point	C	C	C
below melting point	I	I	I
Glycerine	I	I	I
IPM	P	I	I

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## Compatibility (Cont.)

Type of material	1:10	1:1	10:1
Lanolin			
above melting point	C	P	I
below melting point	I	I	I
Mineral oil	I	I	I
Parrafin wax			
above melting point	C	C	C
below melting point	I	I	I
Stearic acid			
above melting point	C	C	C
below melting point	I	I	I
XIAMETER™ PMX-200 Silicone Fluid 350 cSt	I	I	I

## Formulations

Clear shampoo based on XIAMETER OFX-5324 Fluid		
Ingredients	%	Procedure
1. Sodium Laureth Sulphate (30%)	30.0	A. Heat 3 in 15 ml of 5, to dissolve.
2. Coconut Diethanolamide	2.0	B. Disperse 1, 2 and 4 in 5 and heat.
3. PEG-120 Methylglucose Dioleate	1.5	C. When both A and B are at 50°C add A and B.
4. XIAMETER OFX 5324 Fluid	2.0	D. When cool, adjust pH with 6
5. Distilled water	64.5	E. Adjust viscosity with 7.
6. Citric acid	q.s	
7. Sodium chloride	q.s.	

<http://www.xiameter.com>

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