



## Technical Data Sheet

### XIAMETER™ OFX-8813 Fluid

Low yellowing silicone softener

#### Features & Benefits

- Soft handle
- Very low yellowing
- Microemulsifiable
- Good durability
- Low hydrophobicity

#### Applications

- Imparts durable softness to fabrics.
- Easily formulated into a stable microemulsion which can be applied to fabric by padding.
- The treated fabric is typically less hydrophobic than corresponding fabric treated with aminofunctional silicones.

#### Typical Properties

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

CTM <sup>1</sup>	Property	Unit	Result
50 CQ	Viscosity	cP	8000
0176B	Appearance		Hazy-clear liquid
0094	Nitrogen content	%	0.35–0.40

1. CTM: Corporate Test Method, copies of CTMs are available on request.

#### Description

Amidofunctional silicone polymer which imparts good softness to all types of woven or knitted fabrics without significant loss of fabric whiteness which can occur with some aminofunctional silicones. This polymer is also significantly less hydrophobic than aminofunctional silicones.

#### How To Use

XIAMETER™ OFX-8813 Fluid is suitable for formulation to a microemulsion which may be applied by the pad application method for wovens, knits, cotton and polyester-cotton blended fabrics. For optimum, cost effective performance, 0.5% to 0.75% silicone solids on weight of fabric should be applied.

In order to emulsify XIAMETER OFX-8813 Fluid the following starting formulation can be used (15%).

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XIAMETER™ OFX-8813 Fluid

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## How To Use (Cont.)

### Method

1. Mix XIAMETER™ OFX-8813 Fluid, Lutensol® ON70, Lutensol® TO5 and thick phase water for 45 minutes. Ensure that the mixture is homogeneous before proceeding with dilution. Good and complete mixing is required in order to achieve a clear end-product.
2. Add dilution water in 3 separate and equal amounts, and mix for 45 minutes after each addition, ensuring mixture is homogeneous after each stage before proceeding.
3. Add acetic acid and mix for 20 minutes. A clear emulsion should be achieved.

#### ATTENTION:

Sample formulations are provided for illustrative purposes only. Dow does not warrant their merchantability, fitness for use, performance, efficacy, safety or freedom from patent infringement. They are not commercial formulations and have not been subjected to extensive testing. It is your responsibility to thoroughly test any formulation before use.

Table 1  
Suggested starting formulation

Ingredient	% Content
XIAMETER™ OFX-8813 Fluid	15.00
Lutensol® ON70 <sup>1</sup>	3.60
Lutensol® TO5 <sup>2</sup>	5.40
Thick phase water	7.00
Dilution water	68.75
Acetic acid, glacial	0.25

<sup>1</sup>Lutensol® ON Surfactants are supplied by BASF. They are C<sub>12</sub>-C<sub>14</sub> alcohols. ON70 HLB=13.0

<sup>2</sup>Lutensol® TO Surfactants are supplied by BASF. They are C<sub>12</sub> oxo alcohols. TO5 HLB=10.5

## 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 30°C (86°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.

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**Table 2**  
Whiteness index measurements (higher value means greater whiteness)

Type Of Fabric	Fabric Finish	Whiteness Index Measure
Dacron (polyester)	Blank	86.5
	<b>XIAMETER OFX-8813 Fluid</b>	<b>85.0</b>
	Ethylene diamine silicone softener	84.8
Polycotton shirting	Blank	81.5
	<b>XIAMETER OFX-8813 Fluid</b>	<b>78.4</b>
	Ethylene diamine silicone softener	74.5
Polycotton knit	Blank	121.1
	<b>XIAMETER OFX-8813 Fluid</b>	<b>118.6</b>
	Ethylene diamine silicone softener	108.1
Cotton knit	Blank	86.8
	<b>XIAMETER OFX-8813 Fluid</b>	<b>83.7</b>
	Ethylene diamine silicone softener	76.6
Cotton towelling	Blank	122.3
	<b>XIAMETER OFX-8813 Fluid</b>	<b>121.5</b>
	Ethylene diamine silicone softener	111.2

**Table 3**  
Water drop absorption tests (lower value represents better hydrophilicity)

Type Of Fabric	Fabric Finish	Absorption Time (Seconds)
Dacron	Blank	Instantaneous
	<b>XIAMETER OFX-8813 Fluid</b>	<b>Instantaneous</b>
	Ethylene diamine silicone softener	3.7
Polycotton shirting	Blank	Instantaneous
	<b>XIAMETER OFX-8813 Fluid</b>	<b>9.0</b>
	Ethylene diamine silicone softener	14.8
Polycotton knit	Blank	Instantaneous
	<b>XIAMETER OFX-8813 Fluid</b>	<b>10.8</b>
	Ethylene diamine silicone softener	> 30
Cotton knit	Blank	Instantaneous
	<b>XIAMETER OFX-8813 Fluid</b>	<b>3.0</b>
	Ethylene diamine silicone softener	> 30
Cotton towelling	Blank	Instantaneous
	<b>XIAMETER OFX-8813 Fluid</b>	<b>1.7</b>
	Ethylene diamine silicone softener	22.0

Lutensol is a registered trademark of BASF Corporation

<http://www.xiameter.com>

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