

Technical Information

# ABIL® B 8852

## Silicone surfactant for hair and skin cleansing products and shaving products

### Intended use

Hydrophilic emollient

### Benefits at a glance

- refatting properties
- improves the combability of hair
- positive influence on the foam properties in surfactant products

### INCI (PCPC name)

PEG/PPG-4/12 Dimethichone

### Chemical and Physical Properties (not part of specifications)

Physical properties	
Form	Liquid
Solubility at 25 °C and 10% concentration:	
Water	Dispersible
Ethyl alcohol	Soluble
Paraffin oil	Dispersible
Isopropyl myristate	Soluble
Sunflower seed oil	Dispersible
Glycerol	Dispersible
1,2-Propylene Glycol	Dispersible
Cloud point 4% in water (°C)	< 15

### Properties

ABIL® B 8852 silicone polyether is a non-ionic copolymer produced by linking of long-chain polyether groups with polydimethyl siloxane. In aqueous solutions ABIL® B 8852 behaves like conventional organic non-ionic surfactants:

It decreases the surface tension of aqueous solutions, is able to form micelles and shows a characteristic cloud point, when heated, because of its inverse solubility behaviour.

The silicone part causes a remarkable decrease of surface tension. Due to the silicone part ABIL® B 8852 shows excellent properties in cosmetic applications.

- At elevated processing temperature (> approx. 50 °C) ABIL® B 8852 acts as a foam reducing agent because of its low cloud point.
- At room temperature (approx. 25 °C) ABIL® B 8852 is soluble in clear surfactant formulations and contributes to pleasant and rich foam.

### Application

- shampoos
- shower baths
- face tonics, after shave formulations
- deodorants

Remarkable refatting effect on skin and hair. Wet and dry combability is improved.

Well suitable to improve the smoothening effect in face tonics and after shave formulations.

The sticky skin feel that is caused by some deodorants can be lowered by using ABIL® B 8852, furthermore it takes more time until the ball of a roll-on-product gets dry.

### Hazardous goods classification

Information concerning

- classification and labelling according to regulations for transport of chemicals
- protective measures for storage and handling
- measures in case of accidents and fire
- toxicological and ecotoxicological effects

is given in our safety data sheets.

## Guideline formulations

### Clear conditioning shampoo for damaged hair (UM 96/31)

Sodium Laureth Sulfate (28%)	25.00%
ABIL® B 8852	0.50%
ABIL® Quat 3272 (Quaternium-80)	0.50%
Water	55.00%
Lauryl Glucoside	4.20%
TEGO® Betain F 50 (Cocamidopropyl Betaine)	14.30%
ANTIL® 171 (PEG-18 Glyceryl Oleate/Cocoate)	0.50%

### Preparation

Mix the ingredients in the given order.

### Creamy shower gel "2 in 1" (C002/158)

#### Phase A

TEGIN® G 1100 Pellets (Glycol Distearate)	1.00%
Sodium Laureth Sulfate (28%)	40.00%

#### Phase B

TEGO® Betain F 50 (Cocamidopropyl Betaine)	15.00%
Sodium Cocoyl Isethionate (84%)	3.00%
ABIL® B 9950 (Dimethicone Propyl PG-Betaine)	3.00%
ABIL® B 8852	1.00%
Water	37.00%
NaCl, Preservatives	q. s.

### Preparation

Heat phases A and B up to 75 – 80 °C (above the melting point of TEGIN® G 1100 Pellets). Add B to A and cool down to room temperature while stirring.

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**Evonik Nutrition & Care GmbH**  
Goldschmidtstraße 100  
45127 Essen, Germany  
Phone +49 201 173 2546  
Fax +49 201 173 712546  
[personal-care@evonik.com](mailto:personal-care@evonik.com)  
[www.evonik.com/personal-care](http://www.evonik.com/personal-care)

