#### **Guide Formulation**

# Dry Sensation Protecting Oil SPF 30 UV-DE-16-180-2-2

Created by BASF. The formulation has been developed in order to give general guidance only. It does not constitute any guarantee or warranty.

Phase	Ingredients	INCI Name	% w/w	Function
Α	Cetiol® 4 All (BASF)	Dipropylheptyl Carbonate	25.00	Emollient
	Cetiol® Sensoft (BASF)	Propylheptyl Caprylate	10.00	Emollient
	Cetiol® CC (BASF)	Dicaprylyl Carbonate	10.00	Emollient
	Cetiol® OE (BASF)	Dicaprylyl Ether	10.00	Emollient
	Cosmedia® DC (BASF)	Hydrogenated Dimer Dilinoleyl/Dimethylcarbonate Copolymer	2.00	Film forming agent
	Uvinul® A Plus (BASF)	Diethylamino Hydroxybenzoyl Hexyl Benzoate	7.00	UV-A filter
	Uvinul® MC 80 (BASF)	Ethylhexyl Methoxycinnamate	10.00	UV-B filter
	Tinosorb® S (BASF)	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	2.50	Broad spectrum UV filter
	Neo Heliopan OS	Ethylhexyl Salicylate	5.00	UV-B filter
В	AEROSIL® R 974	Silica Dimethyl Silylate	3.50	Rheology modifier
С	Cetiol® Ultimate (BASF)	Undecane, Tridecane	15.00	Emollient
		Total	100.00	

#### **Processing**

- Prepare part A and heat to 80°C.
- Add phase B while stirring.
- Let cool down to RT. Liquid is not clear!
- Below 60°C add phase C while stirring.
- After addition of phase C → Clear Oil.



### Guide Formulation

# Dry Sensation Protecting Oil SPF 30 UV-DE-16-180-2-2

### **Specifications**

Viscosity: 100-300

(Brookfield; DV-III+; spindle LV1; 10 rpm; 25°C)

#### **Performance**

SPF in silico: 30

(BASF Sunscreen Simulator - in silico determination of the sun protection factor)

SPF in vivo: 35

(ISO 24444 - In vivo determination of the sun protection factor)

UVA-PF in vitro: 10.7

(BASF internal method Nr. 55 - determination of the in vitro SPF & UVA Protection Factor (UVA-PF))

WR %: 65

(COLIPA, December 2005 - Water resistance)

#### NOTE:

All formulations have been subjected to stability tests and have been shown to perform well. However, formulators should always perform their own stability tests when adapting formulations and / or using raw materials from other sources.



Guide Formulation

## **Dry Sensation Protecting Oil SPF 30 UV-DE-16-180-2-2**

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND / OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and / or recommendations at any time, without prior or subsequent notice.

**AEROSIL®** is a registered trademark of Evonik Industries or its subsidiaries.

#### EUROPE / MIDDLE-EAST/ AFRICA / LATIN AMERICA

Evonik Operations GmbH Silica business line Rodenbacher Chaussee 4 63457 Hanau-Wolfgang Germany

Phone +49 6181 59-8118 Fax +49 6181 59-78118 ask-si@evonik.com www.silica-specialist.com

#### ASIA / PACIFIC

Evonik (SEA) Pte. Ltd.
Silica business line
3 International Business Park
#07–18 Nordic European Centre
Singapore 609927

Phone +65 6 809-6851 Fax +65 6 809-6651 ask-si-asia@evonik.com

#### **NORTH AMERICA**

Evonik Corporation Silica business line 299 Jefferson Road Parsippany, NJ 07054-0677 USA

Phone +1 888 745-4227 Fax +1 732 981-5275 ask-si-nafta@evonik.com

The Silica specialists at Evonik - Inside, to get it right.

