SiSiB® PC19520

Formulation Aids

INCI: Lauroyl PEG/PPG-18/18 Dimethicone

CHEMICAL STRUCTURE

$$\begin{array}{c} CH_3 \\ H_3C \\ \hline \\ CH_3 \\ \hline \\ CH_2 \\ \hline \\ CH_3 \\ \hline \\ CH_2 \\ \hline \\ CH_2 \\ \hline \\ CH_2 \\ \hline \\ CH_3 \\ CH_3 \\ \hline \\ CH_3 \\ CH_3 \\ \hline CH_3 \\ \hline \\ CH_3 \\ CH_3 \\ \hline \\ CH_3 \\ CH_3 \\ \hline \\ CH_3 \\ CH_$$

INTRODUCTION

SiSiB® PC19520 is a liquid alkylmethyl silicone polyether copolymer.

SiSiB® PC19520 is a very efficient emulsifier and leads to water-in-oil formulations exhibiting excellent stability at high water concentration and low emulsifier levels.

SiSiB® PC19520 can be used as a co-emulsifier in oil-in-water systems and has also demonstrated hair and skin conditioning properties.

ADVANTAGES

- □ Cold manufacturing process
- □ Low emulsifier use level
- □ Formulation flexibility
- ☐ High water content
- ☐ Multiple (W/O/W) emulsions

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Water-in-wax emulsions
Co-emulsifier for O/W emulsions
Moisturizing and protective
Non-greasy feel
Easy to spread
Excellent wash off resistance
Wide range of emulsion form: W/O/W, water-in-wax

TYPICAL PHYSICAL PROPERTIES

Appearance	Clear to slightly hazy amber liquid.
Specific gravity (25°C)	0.885-0.935
Viscosity (cSt, 25°C)	1000-4500
Refractive Index (25°C)	1.4430-1.4595

APPLICATIONS

SiSiB® PC19520 emulsifier can be used to produce water-in-oil emulsions with excellent stability, flexibility and aesthetic.

SiSiB® PC19520 emulsifier can be used in many uses in skin care products such as:

Main emulsifier for water-in-oil creams and lotions: protective cream, cleansing	
night cream, sunscreen cream, baby cream, dry skin cream and lotion, moisturizing	
cream, foundation, hand and body cream and lotion.	
Allows the preparation of multiple emulsions (water/oil/water, or W/O/W) and water in	
wax emulsions.	
Co-emulsifier for oil-in water creams and lotions.	

SiSiB® PC19520 emulsifier can provide light hair conditioning when formulated into shampoos. It can even be used in clear shampoo formulations.

Skin conditioning properties in clear 2-in-1 shower gels.

How To Use

□ Water-in-oil emulsions

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The recommended use level is 2% for an oil phase ranging from 15 to 25% for low polarity oil (e.g. Mineral oil) and from 25 to 30% for medium polarity oil (e.g. Octyl palmitate). No heating is required to produce these water-in-oil creams unless high melting point ingredients are incorporated.

To ensure optimum stability of the final emulsion, the following procedures are recommended:

Stirrer and homogenizer

The water phase is added very slowly into the oil phase with high speed agitation. The final emulsion is then processed through the homogenizer.

♦ Turbine type equipment

Turbine set to medium speed during the water addition. Turbine set to maximum speed to build the viscosity at the end. The emulsion viscosity can be increased by the addition of water, within the limits defined above or the viscosity can be decreased by increasing the oil phase volume (up to 35%) but the emulsifier level needs to be increased accordingly.

- Suggest to add salts in the water phase for formulation stability.
- ☐ Co-emulsifier for oil-in-water emulsions

SiSiB® PC19520 is an efficient co-emulsifier for oil-in-water emulsions at concentrations between 0.5 and 0.9%.

Skin and hair conditioning additive

SiSiB® PC19520 can be easily incorporated into clear shampoo and shower gels in the presence of fatty acid alkanolamides such as Coconut Diethanolamide or Monoisopropanolamide.

PACKING AND STORAGE

SiSiB® PC19520 is supplied in 18Kg pail or 180Kg steel drum.

In the original unopened packaging, SiSiB® PC19520 has a shelf life of 24 months in a dry and cool place at room temperature.

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Notes

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

We specifically disclaim any other express or implied warranty of fitness for a particular purpose or merchantability. We disclaim liability for any incidental or consequential damages.

Please send all technical questions concerning quality and product safety to: support@SiSiB.com.

