DOWSIL™ 9509 Silicone Elastomer Suspension
DOWSIL™ PF-9510 Silicone Elastomer Suspension

INCI NAME: Dimethicone/Vinyl Dimethicone Crosspolymer (and) C12-14 Pareth-12

Features & Benefits
- Water-based suspension of elastomeric silicone powder
- Ease of formulation
- Cold processing
- Imparts silky feel to skin
- Reduces shine on skin (matte)
- Effectively controls sebum

Applications
- DOWSIL™ 9509 Silicone Elastomer Suspension has been developed to facilitate the incorporation of an elastomeric silicone powder into water-based cosmetic products. It can be used in skin care, color cosmetics and body wash applications.
- DOWSIL™ PF-9510 Silicone Elastomer Suspension is an alternative-preservative version of DOWSIL™ 9509 Silicone Elastomer Suspension.

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>DOWSIL™ 9509 Silicone Elastomer Suspension</th>
<th>DOWSIL™ PF-9510 Silicone Elastomer Suspension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>mPa·s</td>
<td>~ 6700</td>
<td>~ 6200</td>
</tr>
<tr>
<td>Color</td>
<td></td>
<td>Milky white</td>
<td>Milky white</td>
</tr>
<tr>
<td>pH</td>
<td></td>
<td>3–4.5</td>
<td>3–7.5</td>
</tr>
<tr>
<td>Particle size D50</td>
<td>microns</td>
<td>&lt; 4</td>
<td>&lt; 4</td>
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<td>Suitable diluent</td>
<td></td>
<td>Water</td>
<td>Water</td>
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<tr>
<td>Emulsifier type</td>
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<td>Non-ionic</td>
<td>Non-ionic</td>
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<tr>
<td>Preservative system</td>
<td></td>
<td>Phenoxyethanol, Chlorophenesin, Methyl Paraben, Benzoic acid</td>
<td>Phenoxyethanol and Chlorophenesin</td>
</tr>
<tr>
<td>Non-volatile content</td>
<td>%</td>
<td>65–68</td>
<td>65–68</td>
</tr>
<tr>
<td>Cyclotetrasiloxane (D4) content</td>
<td>%</td>
<td>&lt; 0.1</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Cyclopentasiloxane (D5) content</td>
<td>%</td>
<td>&lt; 0.1</td>
<td>&lt; 0.1</td>
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</tbody>
</table>
Description
DOWSIL™ 9509 Silicone Elastomer Suspension is a non-ionic suspension of a spherical silicone elastomer powder in water.

How to Use
DOWSIL™ 9509 Silicone Elastomer Suspension should be formulated into the aqueous phase. Preferably it should be added last while mixing using moderate shear. The recommended addition level is 3 to 6% silicone active level.

How to Apply
The suspension can be added into the aqueous phase anytime but preferably at the end of the process. Also low molecular weight lipophilic fluids can be incorporated into the elastomer by direct addition to the suspension.

Benefits
1. Sensory Data
A hydrogel containing 10% DOWSIL™ 9509 Silicone Elastomer Suspension provides a less greasy and silkier feel to the skin compared to the control. The skin is also less shiny.

![Figure 1: After absorption](chart)

2. Sebum Control Data
A hydrogel containing 8% DOWSIL™ 9509 Silicone Elastomer Suspension shows a decrease in the sebum present on the forehead over a 6 hour period compared to a control formulation containing volatile silicone oil.

A similar effect was achieved using an oil-in-water cooling gel containing 10% DOWSIL™ 9509 Silicone Elastomer Suspension compared to a control containing mineral oil.

![Figure 2: Sebum absorption on forehead hydrogel](chart)
3. **Thickening Data**

Addition of 6.35% DOWSIL™ 9509 Silicone Elastomer Suspension (4% active) into the water phase of a water-in-silicone emulsion can increase the viscosity of the formulation by 454%.

**Figure 3:** Thickening

**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 consumer.dow.com, or from your Dow sales application engineer, or distributor, or by calling Dow customer service.

**Usable Life and Storage**

When stored between 5°C (41°F) and 32°C (89°F) in the original unopened containers, this product has a usable life of 12 months from the date of production.

If separation occurs during storage, shake or mix well before use. Separation has no effect on product performance.

**Packaging Information**

This product is available in 18 kg pails. Samples are available in 100 g.

**Limitations**

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

**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.

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