**Product Information**

**Personal Care**

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**Dow Corning® FA 4103 Silicone Acrylate Emulsion**

**FEATURES & BENEFITS**

- Film-former
- Flexible film
- Sebum and water repellency
- Wear resistance
- Film barrier properties
- Long lasting benefit with comfort in W/O and O/W foundation
- Wash-off resistance in mascara
- Wear resistance in lip stain, even with olive oil
- Wash-off resistance in sun care
- Skin tightening
- Listed in the *Catalogue of Cosmetic Ingredients Used in China*

**COMPOSITION**

- 30% polymer in water

**INCI:** Acrylates/Polytrimethylsiloxymethacrylate Copolymer (and) Laureth-1 Phosphate

**APPLICATIONS**

- Color cosmetic
- Skin care
- Sun care

**TYPICAL PROPERTIES**

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

<table>
<thead>
<tr>
<th>CTM</th>
<th>Property</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0176</td>
<td>Appearance</td>
<td></td>
<td>Milky liquid</td>
</tr>
<tr>
<td>0007</td>
<td>pH (25°C, undiluted)</td>
<td></td>
<td>5.5–7.5</td>
</tr>
<tr>
<td>0208</td>
<td>Non-volatile content</td>
<td>%</td>
<td>28.0–32.0</td>
</tr>
<tr>
<td>0219 C</td>
<td>Bacteria (Broth enrichment)</td>
<td>CFU/mL</td>
<td>&lt; 1</td>
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<tr>
<td>0219 C</td>
<td>Fungi (Broth enrichment)</td>
<td>CFU/mL</td>
<td>&lt; 1</td>
</tr>
<tr>
<td></td>
<td>Cyclotetrasiloxane (D4) content</td>
<td>%</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td></td>
<td>Cyclopentasiloxane (D5) content</td>
<td>%</td>
<td>&lt; 0.1</td>
</tr>
</tbody>
</table>

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

**DESCRIPTION**

*Dow Corning® FA 4103 Silicone Acrylate Emulsion* is a 30% acrylates/polytrimethylsiloxymethacrylate copolymer anionic emulsion. After evaporation of the water, the high molecular weight silicone acrylate copolymer forms a film on skin. This film is flexible, water and sebum repellent and resistant to abrasion.

**HOW TO USE**

This is a low viscosity emulsion that is easily incorporated into a variety of personal care formulations, Oil-in-Water or Water-in-Oil, either within the water phase or in post-addition. If the water phase contains salt, prefer the post-addition process, as flocculation can occur.

**HANDLING PRECAUTIONS**

Proper dilution of this product into consumer personal care end products is recommended.

**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 CORNING WEBSITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR
DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

USABLE LIFE AND STORAGE
When stored between 5 and 40°C in the original unopened containers, this product has a usable life of 18 months from the date of production.

PACKAGING INFORMATION
This product is available in 180 kg drums and 18 kg pails. Samples are available in 500 g bottles.

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 Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, dowcorning.com or consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY
The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer’s tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning’s sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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**Figure 1:** Water repellency (water contact angle in ° for 20% dilution neat film at 50 µm wet thickness on glass dried overnight at room temperature)

**Figure 2:** Sebum repellency (artificial sebum contact angle in ° for 20% dilution neat film at 50 µm wet thickness on glass dried overnight at room temperature)

**Figure 3:** Color loss (ΔE) for Water-in-Oil foundations with 5% active film former, dried overnight at room temperature, upon abrasion on felt at 25 µm wet thickness on Vitro-Skin®. Left graph with no sebum, Right graph with 50 µL artificial sebum.