ViscUp™ 160
Makes Clear, Colorless Gels Seem Effortless

INCI Name: Mineral Oil and Hydrogenated Styrene/Butadiene Copolymer
SAP Code#: 136830

Key Product Attributes

- Clear, colorless gel
- Film-former
- Shine enhancer
- Gelling/Thickening agent

Background Information

ViscUp™ 160 is a mineral oil gel based on a proprietary polymer, suitable for skin and hair care applications. ViscUp™ 160 has a demonstrated ability as a gelling agent, to boost the viscosity of mineral oil. Typically, mineral oil is a difficult material to gel and most thickeners used give a hazy finished product. ViscUp™ 160, however, gives a clear, colorless gel. It is an efficacious, cost effective gelling agent, that is very effective in applications where drip control is desirable.

Formulating Tips

When oil is thickened using ViscUp™ 160, the oil should be added to the gel gradually and stirred well between additions. This will ensure even distribution of the gel in the oil, and avoid lump formation. Slow stirring will avoid the formation of air bubbles [in the case of a high viscosity end-product]. This should be done preferably cold mix, but the gel can be heated.
If ViscUp™ 160 has to be heated, the temperature should be kept below 176°F (80°C) using indirect heat.

ViscUp™ 160 can be used in a variety of skin and hair care applications and in lip gloss.

**Efficacy**

**Mineral Oil Viscosity Study**

To evaluate the gelling properties of ViscUp™ 160 on mineral oil, the two products were mixed together in different proportions and their viscosities were recorded. The graph below shows the resulting viscosities of ViscUp™ 160 at weight concentrations of 0, 10, 30, 50, 70 and 90.

### ViscUp™ 160 / Mineral Oil Viscosity Study

![Viscosity graph](image)

### ViscUp™ Solubility

<table>
<thead>
<tr>
<th>Solvent</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet Almond Oil</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Soybean Oil</td>
<td>S</td>
<td>IS</td>
<td>IS</td>
</tr>
<tr>
<td>Marula Oil</td>
<td>S</td>
<td>S</td>
<td>IS</td>
</tr>
<tr>
<td>Dimethicone</td>
<td>D</td>
<td>IS</td>
<td>IS</td>
</tr>
<tr>
<td>Cyclomethicone</td>
<td>D</td>
<td>D</td>
<td>IS</td>
</tr>
<tr>
<td>Dimethiconol</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>Phenyletrimethicone</td>
<td>S</td>
<td>IS</td>
<td>IS</td>
</tr>
<tr>
<td>Ethylhexyl Palmitate</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>C12-15 Alkyl Benzoate</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Capric/Caprylic Triglyceride</td>
<td>S</td>
<td>D</td>
<td>IS</td>
</tr>
<tr>
<td>Ethylhexyl Methoxycinnamate</td>
<td>S</td>
<td>S</td>
<td>IS</td>
</tr>
<tr>
<td>Benzoephene 3</td>
<td>D</td>
<td>D</td>
<td>NA</td>
</tr>
<tr>
<td>Ethanol</td>
<td>IS</td>
<td>IS</td>
<td>IS</td>
</tr>
</tbody>
</table>

A = 90% Solvent: 10% ViscUp™ 160  
B = 50% Solvent: 50% ViscUp™ 160  
C = 10% Solvent: 90% ViscUp™ 160  
D = Dispersible (hazy)  
S = Soluble  
IS = Insoluble  
NA = Not Possible

**Typical Properties**

<table>
<thead>
<tr>
<th></th>
<th>Clear colorless gel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, cps @ 25°C</td>
<td>145,000 – 175,000 cps</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Recommended Use Level</td>
<td>5–10%</td>
</tr>
</tbody>
</table>

**Toxicological Testing Review**

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epi-Derm</td>
<td>Non-Irritating</td>
</tr>
<tr>
<td>Epi-Ocular</td>
<td>Non-Irritating</td>
</tr>
<tr>
<td>RIPT</td>
<td>Non-Primary Irritant</td>
</tr>
<tr>
<td>RIPTS</td>
<td>Non-Primary Sensitizer</td>
</tr>
</tbody>
</table>

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