COSMOL™ 43N
INCI Name: Polyglyceryl-2 Triisostearate
Appearance: Colorless to pale yellow liquid oil
Properties:
- The tri-ester of multiple branched isostearic acid and diglycerin
- High viscosity at 20°C: 35,210 mPa.s
Applications: Emulsions, Gels, Hot Pours

COSMOL™ 43V
INCI Name: Polyglyceryl-2 Triisostearate
Appearance: Colorless liquid
Properties:
- High polar fatty acid ester consisting of isostearic acid and diglycerin while also containing hydroxyl groups in the molecule
- Viscosity at 20°C: 448 mPa.s.
- Alternative to castor oil
- Superior to castor oil in oxidative stability, compatibility with oils in organic solvents, miscibility, pigment dispersing ability, and sweat prevention in solid cosmetics
Stability: No significant change in color or odor during heat testing (120°C for 24 hours)
Applications: Emulsions, Gels, Hot Pours

COSMOL™ 168ARV
INCI Name: Dipentaerythrityl Hexahydroxy Stearate/Hexastearate/Hexarosinate
Appearance: Pale yellow to yellow paste oil
Properties:
- Substitute for wool-derived lanolin
- Superior oxidative stability, miscibility, water retaining ability, luster, and emollient capabilities
- Good hair conditioning ability as seen in the unity of hairs and combing ability testing
- Double ability to retain water over lanolin
Stability: No significant change in color or odor during heat testing (120°C for 24 hours)
Applications: Emulsions, Gels, Hot Pours, Powders

COSMOL™ 182V
INCI Name: Sorbitan Sesquiisostearate
Appearance: Yellow or brown amber viscous liquid oil
Properties:
- Hydrophobic, Non-ionic emulsifier that contributes to product stability
- Good pigment dispersing ability compared to castor oil
Applications: Emulsions, Gels, Hot Pours

Effect on color during heat testing

Castor Oil COSMOL™ 43V Castor Oil COSMOL™ 43V

Effect on color during heat testing (Top to bottom: COSMOL™ 168ARV, lanolin, control)

Effect on color during heat testing

Castor Oil COSMOL™ 182V

Wet Point Difference

Additional amount of Ethylhexyl Palmitate (g)
**COSMOL™ 222**

**INCI Name:** Diisostearyl Malate

**Appearance:** Colorless to pale yellow liquid

**Properties:**
- A high polar di-ester
- Viscosity at 20°C: 5,500 mPa.s.
- Substitute for castor oil
- Superior to castor oil in oxidative stability and physical properties such as compatibility, water resistance, pigment dispersing ability, gloss and luster
- Compatible with hydrocarbon oils and silicone oils
- Helps control hardness of waxes and sweating in solid cosmetics

**Stability:** No significant change in color or odor during heat testing (120°C for 24 hours)

**Applications:** Emulsions, Gels, Hot Pours, Powders

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**SALACOS® 334**

**INCI Name:** Caprylic/ Capric/ Myristic/ Stearic Triglyceride

**Appearance:** White to light yellow, petrolatum-like substance

**Properties:**
- Synthetic butter with superior emollience compared to shea butter
- Melts gently at below body temperature
- Provides soft texture
- Excellent oxidative stability

**Stability:** Colorless liquid before and after heating

**Applications:** Emulsions, Gels, Hot Pours

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**COSMOL™ 525**

**INCI Name:** Neopentyl Glycol Diethylhexanoate

**Appearance:** Pale yellow, viscous liquid

**Properties:**
- Di-ester of neopentyl glycol and branched medium chain acid
- Dissolves silicone (≤ 3000mm2/s) due to the many branched-chains in the ester
- Low viscosity at 20°C: 14 mPa.s

**Stability:** Excellent heat stability due to hindered ester

**Applications:** Emulsions, Gels, Hot Pours

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**SALACOS® 913**

**INCI Name:** Isotridecyl Isononanoate

**Appearance:** Colorless to yellow liquid oil

**Properties:**
- Emollient ester
- Exhibits non-oily, nearly-dry properties
- Works to easily dissolve high viscosity silicones because of the presence of many branched methyl groups in its chemical structure

**Applications:** Emulsions, Gels, Hot Pours

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**SALACOS® 3318**

**INCI Name:** Trisostearin

**Appearance:** Light yellow liquid oil

**Properties:**
- Low polar, high viscosity ester
- Enables enhanced adhesion and gloss in formulation
- Offers good compatibility with silicones (table 1 & figure 1)

**Applications:** Gels, Hot Pours

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**SALACOS® 99**

**INCI Name:** Isononyl Isononanoate

**Appearance:** Colorless yellow liquid oil

**Properties:**
- Monoester of a branched medium length chain of an odd number alcohol with a branched medium length chain of an odd number chain acid
- Dissolves high viscosity silicone (ability to dissolve silicone gum, viscosity > 1million mm2/s)
- Low viscosity at 20°C: 6 mPa.s

**Applications:** Emulsions, Gels, Hot Pours, Pressed Powders

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**Figure 1. This image shows good compatibility of SALACOS® 3318 with silicone (30 cs) versus a competing material such as hydrogenated polyisobutene**

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**Table 1. Shows the compatibility of SALACOS® 3318 with other materials**

<table>
<thead>
<tr>
<th>Oil Sample</th>
<th>Result</th>
<th>Oil Sample</th>
<th>Result</th>
<th>Oil Sample</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINERAL OIL</td>
<td>S</td>
<td>COSMOL 4V</td>
<td>IS</td>
<td>DIMETHICONE/PEG-10 ISOPROPYL DIMETHICONE</td>
<td>IS</td>
</tr>
<tr>
<td>HYDROGENATED POLYSOBUTENE</td>
<td>S</td>
<td>COSMOL 42</td>
<td>S</td>
<td>DIMETHICONE/PEG-10 ISOPROPYL DIMETHICONE</td>
<td>IS</td>
</tr>
<tr>
<td>SQUALANE</td>
<td>S</td>
<td>COSMOL 42</td>
<td>S</td>
<td>DIMETHICONE/PEG-10 ISOPROPYL DIMETHICONE</td>
<td>IS</td>
</tr>
<tr>
<td>JOJOBA OIL</td>
<td>S</td>
<td>COSMOL 4V</td>
<td>S</td>
<td>POLYSORBATE 80</td>
<td>S</td>
</tr>
<tr>
<td>OLIVE OIL</td>
<td>S</td>
<td>CYCLOHEXILSALONANE</td>
<td>S</td>
<td>ISOPROPYL ALCOHOL</td>
<td>IS</td>
</tr>
<tr>
<td>CASTER OIL</td>
<td>S</td>
<td>DIMETHICONE (10 cs)</td>
<td>S</td>
<td>ETHANOL</td>
<td>S</td>
</tr>
<tr>
<td>TiO</td>
<td>S</td>
<td>DIMETHICONE (30 cs)</td>
<td>S</td>
<td>GLYCERIN</td>
<td>IS</td>
</tr>
<tr>
<td>COSMOL 222</td>
<td>S</td>
<td>DIMETHICONE (60 cs)</td>
<td>S</td>
<td>WATER</td>
<td>IS</td>
</tr>
</tbody>
</table>

S = soluble, PS = partially soluble (cloudy), IS = insoluble
SALACOS® 5418V
INCI Name: *Pentaerythrityl Tetraisostearate*

**Appearance:** Light yellow liquid oil

**Properties:**
- Gives rich feel to lip and skin care products
- Tetraester of Pentaerythritol and Isostearic Acid
- Low polarity
- Excellent heat stability

**Applications:** Emulsions, Gels, Hot Pours

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SALACOS® P-8
INCI Name: *Ethylhexyl Palmitate*

**Appearance:** Colorless to pale yellow liquid

**Properties:**
- Monoester of 2-ethylhexyl alcohol and palmitic acid
- Low viscosity at 20°C: 13 mPa.s

**Applications:** Emulsions, Gels, Hot Pours, Pressed Powders

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SALACOS® WO-6
INCI Name: *Dipentaerythrityl Tri-Polyhydroxystearate*

**Appearance:** Light yellow to yellow liquid

**Properties:**
- Water-retaining emollient polymer
- Stabilizing potential in W/O emulsions
- Good pigment dispersing ability
- Improves the manageability of hair such as making hair less frizzy and easier to comb

**Applications:** Emulsions, Gels, Hot Pours

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SALACOS® HS-6C
INCI Name: *Polyhydroxystearic Acid*

**Appearance:** Light yellow-brown liquid or petrolatum-like substance

**Properties:**
- Provides a moisturizing effect on the skin even after washing
- Gives excellent overall texture for washing
- Excellent pigment dispersing agent with low wet point and same fluidity point
- Provides smooth texture to formulations containing pigments (Figure 2)

**Applications:** Emulsions, Gels, Hot Pours

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Figure 1. Elastic and stable, fine foaming properties of SALACOS® HS-6C (left) versus a control (right)

Figure 2. Effect of dispersing pigments using SALACOS® HS-6C (left) versus control (right), in a W/O sunscreen milk
**Appearance:** Colorless to pale yellow liquid oil

**Properties:**
- Triester of glycerin and branched medium chain acid
- Low congealing point due to branched alkyl. (≤-30°C)
- Viscosity lower than natural triglyceride (30mPa.s/20°C)
- Excellent oxidation and hydrolysis stability
- Superior to Caprylic/Capric Triglyceride in hydrolysis resistance, stability on skin and physical properties such as compatibility and cold stability

**Applications:** Emulsions, Hot Pours

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**KLP-160-BR Cashmere Lipstick**

**Part 1**
- Deionized Water - Water: 15.15%
- Glycerin - CAAL: Glycerin: 1.00%
- Sodium Chloride - CAAL: Sodium Chloride: 0.50%

**Part 2**
- SALACOS® 5418V - Ikeda/Kobo Products: Pentaerythritol Tetraisostearate: 14.00%
- INBP50R68 - Kobo Products: Red 6 Lake (And) Isononyl Isononanoate (And) Isopropyl Myristate (And) Stearalkonium Hectorite (And) Isopropyl Titanium Trisostearate (And) Propylene Carbonate (And) Polyhydroxystearic Acid: 10.40%
- INBP45R7C - Kobo Products: Red 7 Lake (And) Isononyl Isononanoate (And) Isopropyl Myristate (And) Stearalkonium Hectorite (And) Isopropyl Titanium Trisostearate (And) Propylene Carbonate (And) Polyhydroxystearic Acid: 7.90%
- VEGETABLE WAX-SS1 (Non-GMO) - Ikeda/Kobo Products: Helianthus Annuus (Sunflower) Seed Wax (And) Phytosterols: 6.00%
- Abil® EM 90 - Evonik: Cetyl PEG/PPG-10/1 Dimethicone: 5.50%
- ABBP70U - Kobo Products: Titanium Dioxide (And) Isononyl Isononanoate (And) Isopropyl Myristate (And) Stearalkonium Hectorite (And) Isopropyl Titanium Trisostearate (And) Propylene Carbonate (And) Polyhydroxystearic Acid: 4.40%
- PM WAX 82 - Kobo Products: Polyethylene (And) Microcrystalline Wax: 4.00%
- COSMOL™ 222 - Ikeda/Kobo Products: Diisostearyl Malate: 3.00%
- NOMCORT® HK-G - Ikeda/Kobo Products: Glyceryl Behenate/Eicosadiol: 3.00%
- CO40SS - Kobo Products: Sodium Saccharin (And) Ricinus Communis (Castor) Seed Oil (And) BHT: 0.15%

**Part 3**
- KF-995 - Shin-Etsu: Cyclopentasiloxane: 16.00%
- DAIMICBEAZ CM-1077 - Kobo Products: HDI/Trimethylol Hexyllactone Crosspolymer (And) Silica Silylate: 8.00%
- Optiphen - Ashland: Caprylyl Glycol (And) Phenoxyethanol: 1.00%

**Manufacturing Procedure**
1. Add Part 2 ingredients to the main vessel and heat under stirring to 80°C and complete dispersion of pigments.
2. Pre-mix Part 1 ingredients and heat to 75-80°C.
3. Add Part 1 to Part 2 slowly while mixing at 800 rpm.
5. Mix for 10 minutes at 800 rpm.
6. Mix at low speed to remove air and pour into components.

**Description**
This emulsified lipstick features INBP dispersions in Isononyl Isononanoate that can ease the manufacturing process and provide more vivid color. COSMOL™ 222 is a pigment dispersant that offers great stability against oxidation and SALACOS® 5418V is a high refractive index ester that can improve skin feel. VEGETABLE WAX-SS1 (Non-GMO) creates a high-luster lipstick and is used to structure the formulation in association with PM WAX 82, a combination of waxes, and with NOMCORT® HK-G, an oil phase gelant that can also improve formula stability. CO40SS is a sodium saccharin dispersion to give a slight sweet taste. DAIMICBEAZ CM-1077 is a polymer microsphere that improves feel and application.