Transparent Iron Oxides offer many benefits for use in personal care applications, particularly, a Natural Finish on the skin, SPF Boosting and added UVA Protection.

When incorporated into sunscreen products they tint the formula reducing the appearance of whitening and chalkiness, while also contributing to UV Attenuation. In Ethnic Products, Transparent Iron Oxides offer the right balance of transparency and coverage that allows a natural look. Transparent Iron Oxides are much smaller than regular iron oxides, and therefore the particles tend to agglomerate very strongly, making them difficult to disperse. Kobo offers dispersions as well as surface treated powders of Transparent Iron Oxides that can easily be incorporated into a formulation.

Part 1
- Pelemol TGC - Phoenix Chemicals: Trioclyldodecyl Citrate 34.70%
- Ultrapure SC White Petroleum USP - Ultra Chemical, Inc.: Petrolatum 10.50%
- BTD-TTB2 - Kobo Products: Titanium Dioxide (And) Isopropyl Titanium Trisostearate (And) Triethoxysilylpropyl Polydimethylsiloxanyldimethicone 10.05%
- Lanolin, USP AAA - Lubrizol: Lanolin 7.00%
- TNP5STRR - Kobo Products: Iron Oxides (CI 77491) (And) C12-15 Alkyl Benzoate (And) Triethoxycarboxylicsilane (And) Polyhydroxystearic Acid 4.00%
- Castor Oil - Arista Industries, Inc.: Ricinus Communis (Castor) Seed Oil 3.50%
- KOBOGUARD® 5400 CCT - Kobo Products: Hydrogenated Polycyclopentadiene (And) Caprylic/Capric Triglyceride 3.00%
- Shea Butter - Cognis Corp.: Shea Butter 1.50%
- Lexgard® O - Inolex Chemical Company: Caprylic Glycerol 1.00%
- BGOY-TTB2 - Kobo Products: Iron Oxides (CI 77492) (And) Isopropyl Titanium Trisostearate (And) Triethoxysilylpropyl Polydimethylsiloxanyldimethicone 0.80%
- Covi-Ox® T-50 - Cognis Corp.: Tocopherol 0.50%
- MICA S-12 - Kobo Products: Mica (And) Isopropyl Titanium Trisostearate 0.50%
- BGRO-TTB2 - Kobo Products: Iron Oxides (CI 77491) (And) Isopropyl Titanium Trisostearate (And) Triethoxysilylpropyl Polydimethylsiloxanyldimethicone 0.17%

Part 2
- Ozokerite Wax White SP 1020P - Strahl & Pitsch, Inc.: Ozokerite 5.60%
- Candelilla Wax SP 75 - Strahl & Pitsch, Inc.: Euphorbia Cerifera (Candelilla) Wax 2.80%
- Softisan 100 - 1OI Oleo GmbH: Hydrogenated Coco-Glycerides 2.50%
- Synthetic Beeswax Pastilles SP75SP - Strahl & Pitsch, Inc.: Synthetic Beeswax 2.50%
- Carnauba Wax SP 63P - Strahl & Pitsch, Inc.: Copernicia Cerifera (Carnauba) Wax 2.30%

Part 3
- MSP-AK06 - Nikko Rica/Kobo Products: Polymethylsilsequioxane (And) Alumina 1.50%
- Tropical Fragrance #109-00566 - American Flavors & Fragrance: Fragrance 1.50%

Manufacturing Procedure
1. Combine Part 1 ingredients and heat to 80°C, with propeller mixing.
2. Add Part 2 to Part 1 and continue mixing at 80°C.
3. Combine Part 3 ingredients, add to batch at 80°C and continue mixing.
4. Begin cooling to 65°C and pour into molds.

Description
This bronzer wand gives skin a sun-kissed glow. Kobo’s TTB-Treated Pigments are used to enhance formula wear and to showcase the ease of use in this formula. Transparent Iron Oxides offer low coverage to improve skin appearance. KOBOGUARD® 5400 CCT forms a film on the skin to help provide long wear properties. Kobo’s ITT treated MICA S-12, gives the formula a luminous effect. MSP-AK06, a polydimethylsilsequioxane (PMSQ) microsphere composite, is used for optical enhancement.
<table>
<thead>
<tr>
<th>Carrier/Solvent</th>
<th>Product Name</th>
<th>INCI Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Silicone Emulsifiers</strong></td>
<td>FAF40TRR</td>
<td>Cyclopentasiloxane (And) Iron Oxides (CI 77491) (And) Lauryl PEG-9 Polydimethylsiloxynyl Dimethicone (And) Hydrogen Dimethicone (And) PEG/PPG-18/18 Dimethicone</td>
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<tr>
<td></td>
<td>FAF40TRY</td>
<td>Cyclopentasiloxane (And) Iron Oxides (CI 77492) (And) Lauryl PEG-9 Polydimethylsiloxynyl Dimethicone (And) Hydrogen Dimethicone (And) PEG/PPG-18/18 Dimethicone</td>
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<td><strong>Esters/Oils</strong></td>
<td>TNP55TRR</td>
<td>Iron Oxides (CI 77491) (And) C12-15 Alkyl Benzoate (And) Triethoxycaprylylsilane (And) Polyhydroxystearic Acid</td>
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<tr>
<td></td>
<td>TNP55TRY</td>
<td>Iron Oxides (CI 77492) (And) C12-15 Alkyl Benzoate (And) Triethoxycaprylylsilane (And) Polyhydroxystearic Acid</td>
</tr>
<tr>
<td><strong>Natural Esters/Oils</strong></td>
<td>COP40TRR</td>
<td>Ricinus Communis (Castor) Seed Oil (And) Iron Oxides (CI 77491) (And) Polyhydroxystearic Acid (And) Isopropyl Titanium Trisostearate</td>
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<tr>
<td></td>
<td>COP40TRY</td>
<td>Ricinus Communis (Castor) Seed Oil (And) Iron Oxides (CI 77492) (And) Polyhydroxystearic Acid (And) Isopropyl Titanium Trisostearate</td>
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<td>GCG50TRSG</td>
<td>Iron Oxides (CI 77491) (And) Caprylic/Capric Triglyceride (And) Polglyceryl-3 Disostearate (And) Stearoyl Glutamic Acid</td>
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<td>GCG50TYSG</td>
<td>Iron Oxides (CI 77492) (And) Caprylic/Capric Triglyceride (And) Polglyceryl-3 Disostearate (And) Stearoyl Glutamic Acid</td>
</tr>
<tr>
<td><strong>Volatile Non-D5 Silicones</strong></td>
<td>DIM2F50TRR</td>
<td>Dimethicone (And) Iron Oxides (CI 77491) (And) PEG-9 Polydimethylsiloxynyl Dimethicone (And) Hydrogen Dimethicone (And) Polyglyceryl-4 Isostearate (And) Cetyl PEG/PPG-10/1 Dimethicone (And) Hexyl Laurate</td>
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<td>DIM2F45TRY</td>
<td>Dimethicone (And) Iron Oxides (CI 77492) (And) PEG-9 Polydimethylsiloxynyl Dimethicone (And) Hydrogen Dimethicone (And) Polyglyceryl-4 Isostearate (And) Cetyl PEG/PPG-10/1 Dimethicone (And) Hexyl Laurate</td>
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<tr>
<td><strong>Hydrophilic</strong></td>
<td>TRR-100-SW2</td>
<td>Iron Oxides (CI 77491) (And) PEG-8 Methyl Ether Triethoxysilane</td>
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<tr>
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<td>TRY-100-SW2</td>
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</tbody>
</table>

*Please note, Transparent Iron Oxides are extremely difficult to disperse. Kobo dispersions containing these powders are highly recommended when possible. This will ensure fully dispersed particles in the final formula.*

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![Transmittance curves of Transparent Yellow Iron Oxide and Transparent Red Iron Oxide compared to Pigmentary Yellow Iron Oxide and Pigmentary Red Iron Oxide](#)