Triethoxycaprylylsilane is a very reactive surface-treating agent, because the hydrolysis of Si-O bond takes place readily in presence of moisture to form silanol.

The caprylysilyl group is then chemically bonded to the pigment via a condensation reaction between the silanol group formed above and the hydroxyl groups of the pigment surface. This reaction is thus especially suitable for treatment of metal oxides. At the completion of the reaction, all ethoxy groups are substituted and caprylysilyl groups are crosslinked to the pigments to form a very stable coating, even at low pH.

Silicone treated pigments disperse well in cyclomethicones. They have a very low surface tension and excellent hydrophobicity, but they sometimes have poor wettability in common organic vehicles.

While they offer maximum water repellency, triethoxycaprylylsilane treated pigments, because of the lipophilic caprylyl groups, are easy to disperse in esters, mineral oils and silicone fluids: higher pigment loading can be achieved as compared to methicone treated pigments.

The treatment is also physicochemically stable, even at pH 3, has no residual methanol, and, due to the absence of Si-H bonds, has zero hydrogen potential.

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>INCI Name</th>
<th>Product type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRO-11S2</td>
<td>Iron Oxides (CI 77491) (And) Triethoxycaprylylsilane</td>
<td>Red Iron Oxide</td>
</tr>
<tr>
<td>BYO-11S2</td>
<td>Iron Oxides (CI 77492) (And) Triethoxycaprylylsilane</td>
<td>Yellow Iron Oxide</td>
</tr>
<tr>
<td>BBO-11S2</td>
<td>Iron Oxides (CI 77499) (And) Triethoxycaprylylsilane</td>
<td>Black Iron Oxide</td>
</tr>
<tr>
<td>BLACK NF-11S2</td>
<td>Chromium Oxide Greens (And) Triethoxycaprylylsilane</td>
<td>Green Chromium Oxide</td>
</tr>
<tr>
<td>BGCO-11S3</td>
<td>Chromium Hydroxide Greens (And) Triethoxycaprylylsilane</td>
<td>Green Chromium Hydroxide</td>
</tr>
<tr>
<td>BHG TM-11S2</td>
<td>Ferric Ammonium Ferrocyanide (And) Triethoxycaprylylsilane</td>
<td>Blue Ferric Amm. Ferrocyanide</td>
</tr>
<tr>
<td>BFF-11S2</td>
<td>Ultramarines (And) Triethoxycaprylylsilane</td>
<td>Ultramarine Blue</td>
</tr>
<tr>
<td>BEUB-11S2</td>
<td>Titanium Dioxide (And) Triethoxycaprylylsilane</td>
<td>Ultramarine Violet</td>
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<tr>
<td>BUV CG-11S2</td>
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<td>BTD-11S2</td>
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<tr>
<td>RBTD-671-11S2</td>
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</tbody>
</table>
**KPP-064G**

**Pressed Powder with CARESS® BN12**

**Part 1**
- **SERICITE GMS-4C** - Kobo Products: Mica
  - **INCI Name**: Mica (And) Triethoxycaprylylsilane
  - **Product type**: Attenuation Grade Mica
- **MST-203** - Kobo Products: Polymethylsilsesquioxane
  - **INCI Name**: Polymethylsilsesquioxane
  - **Product type**: Silicone
- **ZINC MYRISTATE** - Kobo Products: Zinc Myristate
  - **INCI Name**: Zinc Myristate
  - **Product type**: Fatty Acid
- **BYO-11S2** - Kobo Products: Iron Oxides (CI 77492) (And) Triethoxycaprylylsilane
  - **INCI Name**: Iron Oxides (CI 77492) (And) Triethoxycaprylylsilane
  - **Product type**: Iron Oxide
- **BRO-11S2** - Kobo Products: Iron Oxides (CI 77491) (And) Triethoxycaprylylsilane
  - **INCI Name**: Iron Oxides (CI 77491) (And) Triethoxycaprylylsilane
  - **Product type**: Iron Oxide
- **BB0-11S2** - Kobo Products: Iron Oxides (CI 77499) (And) Triethoxycaprylylsilane
  - **INCI Name**: Iron Oxides (CI 77499) (And) Triethoxycaprylylsilane
  - **Product type**: Iron Oxide
- **Propyl Paraben NF** - International Sourcing: Propylparaben
  - **INCI Name**: Propylparaben
  - **Product type**: Propylene Glycol
- **Methyl Paraben NF** - International Sourcing: Methylparaben
  - **INCI Name**: Methylparaben
  - **Product type**: Propylene Glycol

**Part 2**
- **Lexol® PG-865** - Inolex Chemical Company: Propylene Glycol Dicaprylate/Dicaprate
  - **INCI Name**: Propylene Glycol Dicaprylate/Dicaprate
  - **Product type**: Propylene Glycol
- **ELEMENT14 PDMS 20** - Momentive: Dimethicone
  - **INCI Name**: Dimethicone
  - **Product type**: Silicone
- **ELEMENT14 PDMS 350** - Momentive: Dimethicone
  - **INCI Name**: Dimethicone
  - **Product type**: Silicone
- **SS4267** - Momentive: Dimethicone (And) Trimethylsiloxyisilicate
  - **INCI Name**: Dimethicone (And) Trimethylsiloxyisilicate
  - **Product type**: Silicone

**Manufacturing Procedure**
1. Micropulverize Part 1 until color is fully developed.
3. Blend well.
4. Press at 500 psi.

**Description**
This powder features Kobo’s CARESS® BN12, Boron Nitride, for superior softness and tactility, superb spreadability, excellent adherence, long lasting effect, and good coverage. SERICITE GMS-4C gives a glide-on application. The Silane-Treated Pigments disperse easily, adhere to the skin, and resist darkening during wear. MST-203 gives slip and a great creamy feel. ZINC MYRISTATE also contributes to great feel and adherence on the skin.