NEWS FROM KAHLWAX

2225 PHYTO WAX

INCI (EU): Helianthus Annuus Seed Cera, Olea Europaea Oil Unsaponifiables, Rhus Verniciflua Peel Cera/Rhus Succedanea Fruit Cera, Shorea Robusta Resin

2225 Phyto Wax is a brand-new natural and vegan beeswax alternative. The blend of plant-based waxes and additives has a discreet, neutral scent and a light yellowish cream color, which makes it easy to incorporate into any kind of formulation.

The contained berry wax provides a particularly silky and soft skin feel, similar to a classic emollient, while also increasing skin absorption and spreadability of emulsions. Additionally, it forms a protective layer on the skin that reduces loss of moisture through the epidermis. This effect is supported by the included olive oil unsaponifiables, which also improves the natural skin barrier function. The high amount of sunflower seed wax gives 2225 Phyto Wax a good oil binding capacity, making it an ideal viscosity enhancer.

Phyto Wax has been tested in multiple types of formulation, including lipsticks, emulsions, and mascara, in which it showed very similar characteristics to beeswax. It should be noted that an equal substitution may lead to a softer product, so adjustments can be necessary. 2225 Phyto Wax is very stable against oxidation, so there is no need for the addition of preservatives. Typical applications for 2225 Phyto Wax are rich W/O skin care emulsions, stick preparations, and hot poured products like hair wax, cream blush, mascara, and anhydrous lip and body butters.

Due to it being made of natural ingredients, 2225 Phyto Wax is exempted from REACH Registration. It is conform to the COSMOS/Ecocert standard and is halal and kosher (certifications are still pending).

TECHNICAL DATA

<table>
<thead>
<tr>
<th></th>
<th>8104 BEESWAX</th>
<th>2223 VEGGIE WAX</th>
<th>2225 PHYTO WAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop melting range (°C)</td>
<td>61–66</td>
<td>59–65</td>
<td>68–74</td>
</tr>
<tr>
<td>Needle penetration (1/10 mm)</td>
<td>22</td>
<td>21</td>
<td>17</td>
</tr>
<tr>
<td>Acid value (mg KOH/g)</td>
<td>17–24</td>
<td>17–24</td>
<td>4–10</td>
</tr>
<tr>
<td>Saponification value (mg KOH/g)</td>
<td>87–104</td>
<td>210–260</td>
<td>70–80</td>
</tr>
</tbody>
</table>
6614 TEA WAX

6614 Tea Wax (INCI (EU): *Camellia Sinensis Leaf Cera*) is derived from the *Camellia sinensis* plant, which is native to East and Southeast Asia and the Indian subcontinent, but is nowadays cultivated across the world in tropical and subtropical regions for green and black tea. Our high quality tea wax is obtained by mild and eco-friendly CO₂ extraction of the leaves. As a byproduct of the manufacturing process of decaffeinated tea, it is very sustainable.

6614 is a soft, dark olive colored wax with a medium low drop melting range of 60–66 °C that can be incorporated in any kind of formulation. It has a very distinctive natural tea scent and flavor which can be utilized or easily masked, according to preferences.

Tea wax makes emulsions more substantial, its impact is similar to that of an emollient. While it has no big influence on hardness, it increases the creaminess of a finished formulation. Thanks to its medium low melting range, tea wax is perfect for color cosmetic preparations, providing excellent pay-off and smoothness. 6614 provides good oil binding capacity with very polar and nonpolar emollients. Remarkably, it works excellently with paraffin oil.

**TEWL ANALYSIS**

The influence of 6614 Tea Wax on TEWL has been tested in a randomized, single-blind study with 12 volunteers. An O/W body butter containing 3 % Tea Wax has been compared to a body butter placebo. The product with 6614 Tea Wax significantly reduced the TEWL one hour after application.

![TEWL Analysis Graph](image-url)