Natura-Tec
Plantsil™ Xcite 100
Plantsil™ Xcite 350

Low and medium viscosity dimethicone alternatives
Combining silicone-like sensory profiles with verified eco-friendliness is one of the challenge of these years.

Natura-Tec took it up already once and is strengthening its range of silicone alternatives with 2 new grades:

Plantsil™ Xcite 100
Plantsil™ Xcite 350

Natural alternatives to low and medium viscosity *dimethicones* (non volatile):
Low to high spreadability to create a non-stick moisture barrier to use in elegant skin protective formulas
What are silicones?

Silicone = Silica = Silicon Dioxide = Sand ??!!

To turn silica into silicone → Silicon must be extracted and processed

1/ Silica heated with carbon in an industrial furnace to extract the silicon
2/ Silicon passed through hydrocarbons to create a new polymer with an inorganic silicon-oxygen backbone and carbon-based side groups.

→ while the silicon in silicone comes from a plentiful resource like sand, the hydrocarbons in silicone come from non-renewable resources (fossil sources like petroleum and natural gas)

→ Silicone = hybrid material
→ Better than plastic but still not natural, not renewable and not biodegradable
Silicones are chemically inert, very stable and characterized by a very low water solubility. Silicones can be found in all environments: soil, air and water.

**What is about biodegradability??**

Silicone oils settle to the sediment and are not degraded: It seems to take them 400-500 years on average to decompose…

- **risks of pollution**
- **risks of disturbing the ecosystem**
- **fatal for various animals:** Small zooplanktic and benthic filter feeder are trapped and immobilized in oil films or droplets\(^{(1)}\). They die by suffocation \(^{(2)}\)

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Modern cosmetic products must offer effectiveness and sensory qualities but also environmental safety and comply with eco-awareness.
What are silicones?

Why the industry uses Silicones ?

- Safe – Low hazard for humans (but not for the environment !)
- Smooth, silky, spreadable, luxurious texture
- Water-resistant – Silicones are hydrophobic
- Cheap: Let’s get real. This is the main reason why silicones are everywhere!

Inconvenient

- Synthetic & nonrenewable
- Harmful to the environment and biological diversity
- Silicones trap impurities in skin pores (silicones form a barrier seal on top of skin, that lock in moisture, yes, but also trap dirt, sweat, bacteria, sebum, dead skin cells and other debris along with it!)
- Silicones can cause acne and congestion (because of a prolonged exposure to oil, dead skin and bacteria underneath this semi-occlusive seal of silicones and lead to increased breakouts)
- Silicones block other ingredients from absorbing
- Silicones are difficult to remove (build up effect)
- Silicones deliver nothing beneficial to your skin
  → We deserve higher-quality ingredients that support skin health

What can do Natura-Tec ?

Natura-Tec Plantsil™ Xcite 100 and 350
The benefits of silicones without their disadvantages!

https://theskincareedit.com/2017/03/28/why-avoid-silicones-on-skin
Natura-Tec Plantsil™ Xcite 100

INCI

Hydrogenated Ethylhexyl Olivate (and) Ricinus Communis Seed Oil (and) Phytosterols

Characteristics

- Vegetable based alternative to Dimethicone 100
- Transparent **low viscosity** fluid oil
- **Viscosity ≤ 100 cst**
- Excellent **spreadability**
- Excellent **filming** characteristic

Properties

- Skin protectant, protective and filming barrier on the skin
- Skin & hair conditioner
- Prevent water loss
- Leaves a unique rich, smooth and silky feel
- Improves formulation texture
## Natura-Tec Plantsil™ Xcite 350

<table>
<thead>
<tr>
<th>INCI</th>
<th>Hydrogenated Ethylhexyl Olivate (and) Ricinus Communis Seed Oil (and) Phytosterols</th>
</tr>
</thead>
</table>

### Characteristics
- Vegetable based alternative to Dimethicone 350
- Transparent **medium viscosity** oil
- **Viscosity around 350 cst**
- Good **spreadability**
- Excellent **filming** characteristic

### Properties
- Skin protectant, protective and filming barrier on the skin
- Skin & hair conditioner
- Prevents water loss
- Helps to prevent whitening effect
- Leaves a unique rich, smooth and silky feel
- Improves formulation texture

[INCI](https://example.com/INCI)

[COSMOS APPROVED](https://example.com/COSMOS)

[Vegan](https://example.com/Vegan)

[PALM OIL FREE](https://example.com/PALM OIL FREE)
Protocol: 10 trained specialists evaluate the organoleptic attributes of the same quantity (0.05gr) of pure different products.

Sensorial profile of Natura-Tec Plantsil™ Xcite 100 vs Low Viscosity Dimethicone

Sensorial profile of Natura-Tec Plantsil™ Xcite 350 vs Medium Viscosity Dimethicone

Natura-Tec
Plantsil™ Xcite 100
Plantsil™ Xcite 350
Sensorial Profile
used at 100%

Sensorial profile of Natura-Tec Plantsil™ Xcite 350 vs Medium Viscosity Dimethicone
Protocol: 10 trained specialists evaluate the organoleptic attributes of the same quantity of emulsion containing 10% of different products.

Natura-Tec

Plantsil™ Xcite 100
Plantsil™ Xcite 350
Sensorial Profile in emulsions at 10%
Application formulations
Applications

Lip oils are the new obsession!
This one features a non-sticky and non-greasy oil texture, combined to the shimmering shine of a gloss with the comfort of an intense care, in a Silicone-Free formula.
It throats the lips with nutrients and revitalizes them immediately and day after day.
This shiny oil keeps lips hydrated and nourished. It takes just a flick of this ultra-shiny lip gloss to give to dry lips rich hydration.

Key ingredients

Natura-Tec Plantsil™ Xcite 350 to develop super easily natural, innovative, beautiful and exciting formulas.
## Voluptuous lip-Oil 2003A-VLO

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>INCI</th>
<th>%</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td></td>
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<tr>
<td>Natura-Tec Plantsil™ Xcite 350</td>
<td>Hydrogenated Ethylhexyl Olivate (and) Ricinus Communis Seed Oil (and) Phytosterols</td>
<td>98,0</td>
<td>Natural alternative medium viscosity Dimethicone</td>
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<tr>
<td>Unipure Orange LC226 OR</td>
<td>CI 15985:1</td>
<td>0,2</td>
<td>Pigments</td>
</tr>
<tr>
<td>Unipure Pink LC589</td>
<td>CI 77007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange Flavour</td>
<td>Helianthus Annuus Seed Oil (and) natural orange flavor (and)Tocopherol</td>
<td>1,0</td>
<td>Liposoluble food flavour</td>
</tr>
<tr>
<td>Natural Vitamin E</td>
<td>Tocopherol</td>
<td>0,8</td>
<td>Anti-oxidant</td>
</tr>
</tbody>
</table>
Applications

THE global restructuring care that firms, densifies, smoothes and tones the complexion.

The skin is firmer, better hydrated, smoother, more supple and wrinkles are visibly reduced. Its creamy and light texture penetrates quickly and leaves your skin comfortable.

Key ingredients

The star ingredient of this formula is Natura-Tec Marine BlueRevelation 50+™. All-in-one powerful cocktail of microalgae for 50+, it provides an integrative approach to enhance mature skin beauty thanks to its remarkable anti-ageing properties.

In addition, an eco-friendly dimethicone alternative, our Natura-Tec Plantsil™ Xcite 350, provides a rich and silky after feel.
# 50+ Reveal Beauty Day Cream - 2004A-RBDC

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<tr>
<td><strong>A</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Deionized Water</td>
<td>Aqua (Water)</td>
<td>60,50</td>
<td>Solvent</td>
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<tr>
<td>Satiaxane CX911 <em>(ACEF)</em></td>
<td>Xanthan Gum</td>
<td>0,30</td>
<td>Rheology modifier</td>
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<tr>
<td>Natura-Tec Glycerin - Organic</td>
<td>Glycerin</td>
<td>2,00</td>
<td>Humectant</td>
</tr>
<tr>
<td><strong>B</strong></td>
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<tr>
<td><strong>Natura-Tec</strong> Plantsil™ Xcite 350</td>
<td>Hydrogenated Ethylhexyl Olivate (and) Ricinus Communis Seed Oil (and) Phytosterols</td>
<td>3,00</td>
<td>Natural alternative to medium viscosity dimethicone</td>
</tr>
<tr>
<td>Natura-Tec Emulactive™ W</td>
<td>Cetearyl Alcohol (and) Glyceryl Stearate (and) Potassium Palmitoyl Hydrolyzed Wheat Protein</td>
<td>7,00</td>
<td>O/W emulsifier</td>
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<tr>
<td>Natura-Tec Abysoft™</td>
<td>Crambe Abyssinica Seed Oil Phytosterol Esters</td>
<td>10,00</td>
<td>Moisturizing agent</td>
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<tr>
<td>Natura-Tec Vegetable Vaselin</td>
<td>Olus Oil (and) Cera Alba</td>
<td>5,00</td>
<td>Natural alternative to Vaselin</td>
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<tr>
<td>Natura-Tec White Beeswax</td>
<td>Cera alba</td>
<td>2,00</td>
<td>Stabilizer</td>
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<tr>
<td>Cetearyl Alcohol</td>
<td>Cetearyl Alcohol</td>
<td>1,00</td>
<td>Rheology modifier</td>
</tr>
<tr>
<td><strong>Natura-Tec</strong> Plantsil™</td>
<td>Hydrogenated Ethylhexyl Olivate (and) Hydrogenated Olive Oil Unsaponifiables</td>
<td>5,00</td>
<td>Silicone feel emollient and conditioning agent</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Natura-Tec</strong> Marine BlueRevelation 50+™</td>
<td>Triolein (and) Cylindrotheca Fusiformis Extract (and) Nannochloropsis Oceanica Extract</td>
<td>1,50</td>
<td>50+ microalgae active for a global anti ageing activity</td>
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<tr>
<td>Natura-Tec Rice Starch</td>
<td>Oryza Sativa (Rice) Starch</td>
<td>1,50</td>
<td>Sensorial agent</td>
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<tr>
<td>Natural Vitamine E</td>
<td>Tocopherol</td>
<td>0,40</td>
<td>Antioxidant</td>
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<td>Geogard ECT</td>
<td>Benzyl Alcohol (and) Salicylic Acid (and) Glycerin (and) Sorbic Acid</td>
<td>0,80</td>
<td>Preservative</td>
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<tr>
<td>Citric Acid</td>
<td>Citric Acid</td>
<td>Qs</td>
<td>pH adjuster</td>
</tr>
</tbody>
</table>

*INCI stands for International Nomenclature of Cosmetic Ingredients.*
Natura-Tec
Plantsil™ Xcite 100
Plantsil™ Xcite 350

Low and medium viscosity Dimethicone alternatives