Achieving performance and esthetics in natural brands
Definition of Natural

**Pseudo Natural.** No standard.

**Pseudo Natural** with a narrow internal standard banning specific materials.

**Pseudo Natural** with narrow internal standard for sustainability/ecology.

**Truly Natural** with broad internal standard.

**Truly Natural** using recognized broad third party standards.

**Extreme Natural** using their own extreme internal standard.
The natural products market continues to grow across all product categories and geographical markets.

Traditional formulas rely on heavy waxes and oils, which cause challenges including heavy skin feel, poor performance, high color, strong odor and instability.

New developments in natural materials have given the formulator the tools necessary to overcome aesthetic problems and provide performance products to the consumer.
LexFeel® N Series

Natural Silicone Alternatives

*Patent Pending
LexFeel N Series

INCI: diheptyl succinate (and) capryloyl glycerin/sebacic acid copolymer
Ecocertified by the leading certification organizations

LexFeel N5
Light, dry, cyclomethicone alternative

LexFeel N20, N50, N100, N200, N350
Matches the viscosity and feel of 20, 50, 100, 200 and 350 centistoke dimethicone
LexFeel N Series

diheptyl succinate

capryloyl glycerin/sebacic acid copolymer

A  heptyl alcohol, from pyrolysis of castor oil
B  succinic acid, from fermentation of non-GMO wheat
C  sebacic acid, from oxidation of castor oil
D  glycerin, from coconut oil
E  caprylic acid, from coconut oil
The Philosophy of LexFeel N Series

- Reactants are **100% renewable** and sustainable.
- **No solvents** or petrochemicals of any kind are used in the manufacturing process.
- One step process with **high atom economy** (98%). Only water is lost.
- Water is the only reaction by-product. There is **no waste**, and no release of any chemicals to the environment.
- **Non toxic** to humans and the environment.
- All the sensory **benefits** of silicones, without the health and ecological risks.
Reduction of Tack

Cotton ball test shows significant reduction in tackiness by adding LexFeel N fluids to natural waxes.

Orange Wax                 90% Orange Wax
+ 10 % LexFeel N5
Test of Shine Enhancement on Hair

Measuring the Band-Width of Refraction on Hair Tresses

Shine is maximized when the band-width of refraction is minimized.

LexFeel N50

Dimethicone 50cs
Test of Shine Enhancement on Hair

Low viscosity LexFeel N series has equivalent shine effect as dimethicone.

Reducing Refraction/Increasing Shine with Silicones or LexFeel N Series

- Blank
- Dimethicone 20 cSt
- LexFeel N20
LexFeel N350 has similar, but less shine effect as compared to dimethicone 350 cSt.
Pigment Dispersions

LexFeel N Series better than Dimethicone for wetting & dispersing

Makeup can be formulated with inexpensive untreated pigments

Ease of Making Pigment Dispersions
50% Red 7 Lake in Fluids
Summary – LexFeel N Series

Formulation Guidelines

• Oil soluble – should be added to the oil phase of an emulsion.
• Not soluble in non-polar excipients.
• Not a drop in replacement for silicone.

Effectiveness

• Remarkably similar to silicones, neat and in formulations
• 100% Renewable & Sustainable
• Biodegradable
Conclusion

The Natural silicone alternative LexFeel N Series of products give formulators the tools needed to create natural products with performance.