

WHAT MAKES FLORAESTERS® 15 DIFFERENT FROM JOJOBA OIL?

Floraesters 15 is a second-generation jojoba oil. Mother Nature provides us with jojoba seeds containing 50% jojoba oil. The wax esters that compose this oil are uniquely arranged to meet the requirements of the developing plant. These esters are a family of even numbered carbon chains starting with 36 carbon atoms and ending with 46 carbon atoms.

Ester Composition

At Floratech, we realized that the ester distribution of jojoba oil was not random. We wondered if the properties of jojoba oil would be enhanced if the esters were allowed to recombine in a completely random fashion. The reaction required to enable this interesterification takes place under very mild conditions. The typical distribution of these chain lengths is presented in Table 1, where the ester composition of Floraesters 15 and jojoba oil are compared. Once the reaction was complete, we began evaluating Floraesters 15 in our cosmetic and chemistry lab to find advantages over jojoba oil.

Table 1. Wax-Ester Composition Comparison

Wax- Ester	Jojoba Oil	Floraesters 15
C ₃₆	1.1	0.7
C ₃₈	6.7	6.0
C ₄₀	30.2	36.8
C ₄₂	48.3	38.5
C ₄₄	9.8	13.1
C ₄₆	1.2	1.9

Color Cosmetics

The subtle differences in the composition have resulted in several major cosmetic firms choosing Floraesters 15 instead of jojoba oil in color cosmetic applications. In these formulations, Floraesters 15 (a water white liquid) produced a lubricious, non-greasy tactile experience with improved overall skin feel.

Impact on Lipsticks

The Floratech cosmetic application laboratory found other interesting properties that differentiate Floraesters 15 from jojoba oil and the other Floraesters. A series of lipsticks were prepared using 15% of either jojoba oil, Floraesters 15, Floraesters 20, or Floraesters 30. An internal expert panel evaluated the lipsticks. The Floraesters 15 lipstick was judged easier to apply, it was glossier and gave better coverage (i.e., payout).

Visible Difference

One visible difference between jojoba oil and Floraesters 15 is that Floraesters 15 will become cloudy if the temperature drops below 20°C. This is normal. This cloudiness is due to crystallization similar to what happens with Floraesters 20, 30, and 60 at higher temperatures. Floraesters 15 is perfectly okay! If this cloudiness due to crystallization occurs, simply warm the material to 35°C to 40°C and the cloudiness will disappear. This is another indication that Floraesters 15 is different and behaves differently from jojoba oil.