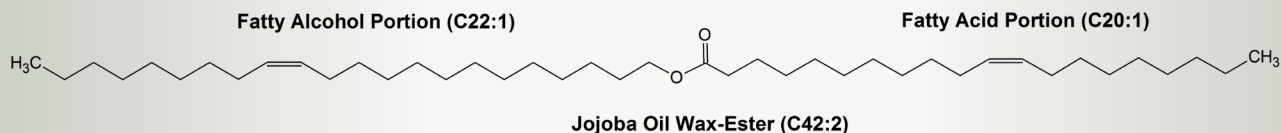


The Chemistry of Floraesters®



Floraesters are products derived from jojoba oil, a naturally occurring liquid wax ester composed of monounsaturated fatty acids and fatty alcohols ranging from C18:1 to C24:1. Jojoba oil has a specific wax ester distribution that ranges from C36:2 to C46:2, with the most abundant wax ester being C42:2.

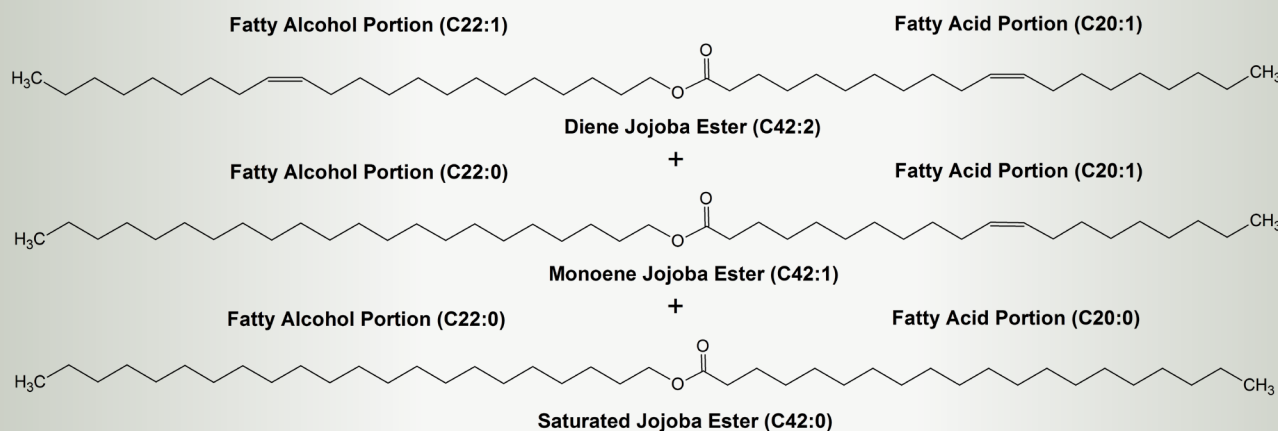
Jojoba Oil



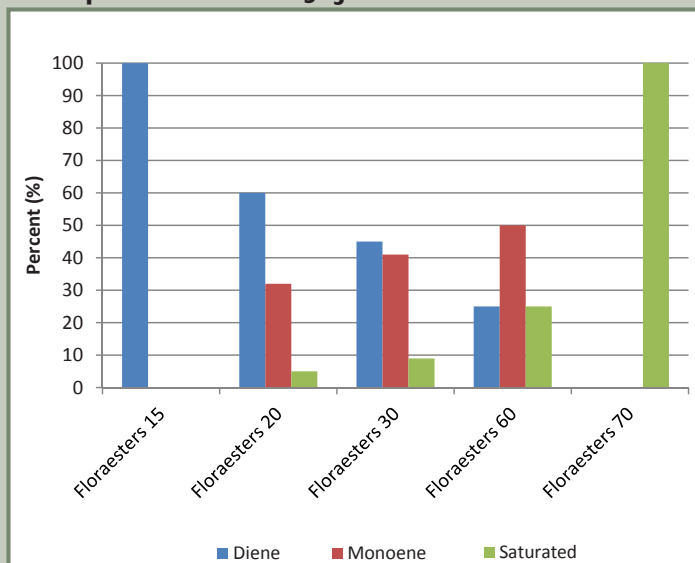
Floraesters 15, Floraesters 20, Floraesters 30, Floraesters 60 and Floraesters 70 are engineered to have distinctive properties. The process generates a unique distribution of trans-free dienes, monoenes, and saturated jojoba esters.



Floraesters 15/20/30/60/70 INCI: Jojoba Esters

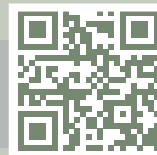


Comparison of the Jojoba Ester Distributions



Product	Melting Point (°C)	Texture at 25° C
Floraesters 15	liquid at 25	cushiony liquid
Floraesters 20	42 - 48	soft, creamy paste
Floraesters 30	47 - 51	soft, creamy paste
Floraesters 60	56 - 60	firm paste
Floraesters 70	66 - 70	free-flowing hard wax

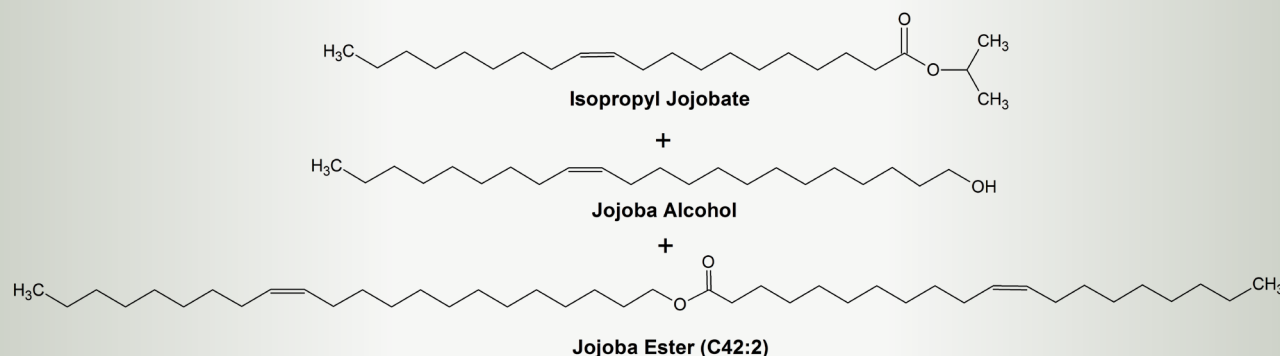
The Chemistry of Floraesters®



Floraesters IPJ is comprised of jojoba alcohol and isopropyl jojobate along with jojoba esters through a transesterification process. The final product, Floraesters IPJ, is unique due to the combination of the polar jojoba alcohol and isopropyl jojobate with the non-polar jojoba esters in liquid form.

Floraesters IPJ

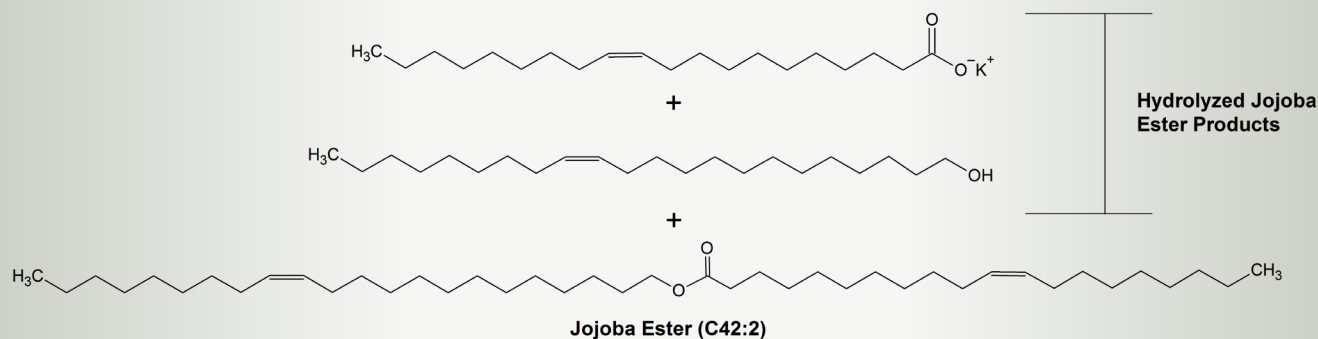
INCI: Isopropyl Jojobate (and) Jojoba Alcohol (and) Jojoba Esters



Floraesters K-100® Jojoba (K-100) and Floraesters K-20W® Jojoba (K-20W) are products of hydrolysis of jojoba oil by potassium hydroxide. The reaction liberates jojoba alcohol and creates a fatty acid potassium salt. The notable difference between K-100 and K-20W is that K-100 is not hydrolyzed to completion, leaving residual jojoba esters in the final product. Excess water is added to K-20W to make a distinguishing oleogel that is easy to handle.

Floraesters K-100 Jojoba

INCI: Hydrolyzed Jojoba Esters (and) Jojoba Esters (and) Water (Aqua)



Floraesters K-20W Jojoba

INCI: Hydrolyzed Jojoba Esters (and) Water (Aqua)

