
Vegetable Oils – Sensory and Fatty Acid Profiles

EarthOil by Univar Solutions is a rare supplier in the world of natural ingredients for the Beauty & Personal Care industry. We can help you create products with a distinctive advantage using established and unique oils from around the world

Partnering with EBInnov®, the Industrial Biology School based in France, EarthOil led a sensory study comparing the oils and butters of its portfolio to help you choose the right ingredient.

Discover more characteristics of our 100% Pure and Natural product offering!

EarthOil

By Univar Solutions

SENSORY PROFILE

Product name	INCI name	Botanical name	Sensoriality	Aspect	Pick up		Application		Afterfeel 1 min				Afterfeel 2 min	
				Color	Fluidity	Melting	Cushion effect	Spreadability	Softness	Smoothness	Stickiness	Greasiness	Film-forming	Penetration
Shea Butter Refined (FFL, Organic)	<i>Butyrospermum parkii</i> Butter	<i>Butyrospermum parkii</i>	More cushion effect More colored than Coconut	White to ivory	-	••	••	••	•	-	•	•••	••	••
Coconut Oil Virgin Crude (FFL, Organic)	<i>Cocos nucifera</i> Oil	<i>Cocos nucifera</i> L.	Melts and spreads very easily on the skin	Colorless to pale yellow	-	•••	•	•••	•	-	•	•••	••	••
Moringa Oil Crude	<i>Moringa oleifera</i> Seed Oil	<i>Moringa oleifera</i>	Fluid and non sticky	Yellow to orange	•••	-	••	••	-	•	•	••	••	••
Sweet Almond Oil Crude (Organic)	<i>Prunus amygdalus dulcis</i> Oil	<i>Prunus amygdalus dulcis</i>	Less greasy	Pale yellow to yellow/ orange	•••	-	••	•••	-	•	•	••	••	••
Apricot Kernel Oil Crude (Organic)	<i>Prunus armeniaca</i> Kernel Oil	<i>Prunus armeniaca</i> L.	Fluid and non sticky	Pale yellow to yellow/ orange	•••	-	••	•••	-	•	•	••	••	••
Avocado Oil Crude (Organic)	<i>Persea gratissima</i> Oil	<i>Persea gratissima</i>	Greasy, smooth. Nourishing	Green to dark olive	•••	-	••	•••	-	•	•	••	••	••
Avocado Oil Refined (Organic)	<i>Persea gratissima</i> Oil	<i>Persea gratissima</i>	Least sticky Less greasy and colored than crude grade	Colourless to pale yellow/ green	•••	-	••	•••	-	•	•	••	••	••
Baobab Oil Crude (Organic)	<i>Adansonia digitata</i> Seed Oil	<i>Adansonia digitata</i> L.	Fluid and non sticky	Pale yellow to yellow/ orange	•••	-	••	•••	-	•	•	••	••	••
Grapeseed Oil Crude (Organic)	<i>Vitis vinifera</i> Seed Oil	<i>Vitis vinifera</i>	Less greasy	Green to dark green	•••	-	••	•••	-	•	•	••	••	••
Hempseed Oil Crude (Organic)	<i>Cannabis sativa</i> Seed Oil	<i>Cannabis sativa</i> L.	Fluid and spreadable	Yellow to green	•••	-	••	•••	-	•	•	••	••	••
Macadamia Oil Crude (Organic)	<i>Macadamia integrifolia</i> Seed Oil	<i>Macadamia integrifolia</i>	More fluid, better cushion effect than Macadamia Oil Crude	Pale yellow to yellow/ orange	•••	-	••	••	-	•	•	••	••	••
Macadamia Oil Crude	<i>Macadamia integrifolia</i> Seed Oil	<i>Macadamia integrifolia</i>	Less sticky feeling than organic grade	Pale yellow to yellow/ orange	••	-	••	•••	-	•	•	••	••	•
Pomegranate Seed Oil Crude (Organic)	<i>Punica granatum</i> Seed Oil	<i>Punica granatum</i>	Very different: stickier, less spreading, less fluid. Better cushion effect More residue on skin	Yellow	••	-	•••	••	-	•	••	••	••	•
Sesame Seed Oil Crude (Organic)	<i>Sesamum indicum</i> Seed Oil	<i>Sesamum indicum</i>	Less residue on skin	Pale yellow to yellow/ orange	•••	-	••	•••	-	•	•	••	••	••

SPECIFICATIONS

Product name	Fatty acids <i>(all values expressed in %)</i> Comments	Short chain	Medium chain				Long chain							Very long chain		Peroxide value (meq O2/kg)	Acid value (mg KOH/g)	Free fatty acid (%)
		C8 Caprylic Acid	C10 Capric Acid	C12 Lauric Acid	C14 Myristic Acid	C16 Palmitic Acid	C16:1 Palmitoleic Acid (omega 7)	C18 Stearic Acid	C18:1 Oleic Acid (omega 9)	C18:2 Linoleic Acid (omega 6)	C18:3 (n-3) α Linolenic Acid (omega 3)	C18:3 Punicic Acid (omega 5)	C20 Arachidic Acid	C22 Behenic Acid				
Shea Butter Refined (FFL, Organic)	Solid at room temperature due to high level of saturated fatty acids, melts at body temperature						2-7	25-47	30-60	2-10				Max 2		Max 10	Max 6	Max 3
Coconut Oil Virgin Crude (FFL, Organic)	Stable thanks to high content of short and medium-sized saturated fatty acids, while very low unsaturated level	3-10	5-8	40-56	15-25	5-10		1-6	3-10	Max 3						Max 5	Max 4	Max 2
Moringa Oil Crude	Very good emollient properties, specific C22 Behenic Acid and very high content of C18:1 Oleic Acid					2-10	1-5	2-8	65-85	Max 2				2-5	3-8	Max 15	Max 8	Max 4
Sweet Almond Oil Crude (Organic)	Very high unsaturated fatty acids content, especially mono-unsaturated that stabilizes the oil					4-9	Max 2	Max 4	62-86	15-32						Max 15	Max 4	Max 2
Apricot Kernel Oil Crude (Organic)	Low saturated and high unsaturated fatty acids content that soften and promote skin elasticity					3-10	Max 2	Max 4	50-76	19-33						Max 15	Max 8	Max 4
Avocado Oil Crude (Organic)	Relatively rare C16:1 Palmitoleic Acid, very high monounsaturated fatty acid content					10-30	2-12	Max 3	40-75	5-30						Max 15	Max 10	Max 5
Avocado Oil Refined (Organic)	Relatively rare C16:1 Palmitoleic Acid, very high monounsaturated fatty acid content					10-30	2-12	Max 3	40-75	5-30						Max 10	Max 4	Max 2
Baobab Oil Crude (Organic)	High composition in unsaturated fatty acids and saturated C16 Palmitic Acid that stabilizes the oil					15-30		1-8	24-44	19-37	Max 3					Max 15	Max 4	Max 2
Grapeseed Oil Crude (Organic)	Very high content of C18:2 Linoleic Acid, softens and promotes skin elasticity					5,5-10		3-6,5	12-28	65-78						Max 20	Max 5	Max 2,5
Hempseed Oil Crude (Organic)	High level of optimally balanced polyunsaturated fatty acids, C18:2 Linolenic Acid and C18:3 α Linolenic Acid					5-12		1-4,5	Max 17	45-65	14-30		Max 2			Max 15	Max 8	Max 4
Macadamia Oil Crude (Organic)	Very high level of mono while very low level of polyunsaturated fatty acids, oxidatively stable					6-12	15-30	2-6	50-70	1-8			Max 4			Max 15	Max 6	Max 3
Macadamia Oil Crude	Very high level of mono while very low level of polyunsaturated fatty acids, oxidatively stable					6-12	15-30	2-6	50-70	1-8			Max 4			Max 15	Max 6	Max 3
Pomegranate Seed Oil Crude (Organic)	Specific composition, high content of rare fatty acid C18:3 Punicic Acid, close to Linolenic Acid					2-6		Max 3,5	3-11	2-10		60-86				Max 15	Max 10	Max 5
Sesame Seed Oil Crude (Organic)	Excellence balance between mono- and poly-unsaturated fatty acids, low in saturated fatty acids					7-12		3,5-6	35-50	35-50	Max 2					Max 15	Max 10	Max 5



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