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Gentle-Scalp Hair Relaxer

Products highlighted: Florasun® 90, Floramac® Macadamia Oil, Floraesters® 20, Floraesters 30, and Floraesters K-100 Jojoba

This product is specially formulated to reduce scalp damage and hair breakage, while chemically straightening the hair. Floraesters K-100 Jojoba is a botanically-derived substantive ingredient which, when combined with glycerin, helps to hold moisture in the hair. The combination of Floraesters 20 Jojoba and Floraesters 30 provides emolliency and occlusivity that protects the hair from breakage and reduces the damaging effect of relaxer actives on the scalp while leaving the hair smooth, soft, and silky.

BASE¹

Phase	Trade/Common Name	INCI Name	Manufacturer	%wt./wt.
A.	Deionized Water	Water	-----	q.s.
	Propylene Glycol, USP	Propylene Glycol	The Dow Chemical Co.	4.50
	Merquat® 2001	Polyquaternium 47	Nalco Company	2.00
B.	Florasun 90	Helianthus Annuus (Sunflower) Seed Oil (and) Tocopherol	Floratech	2.00
	Floramac Macadamia Oil	Macadamia Integrifolia Seed Oil (and) Tocopherol	Floratech	1.00
	Floraesters 20	Jojoba Esters (and) Tocopherol	Floratech	3.00
	Floraesters 30	Jojoba Esters (and) Tocopherol	Floratech	5.50
	Promulgen® D	Cetearyl Alcohol and Cetareth - 20	Lubrizol Corporation*	10.00
C.	Calcium Hydroxide	Calcium Hydroxide	Fisher Scientific	6.00
	Deionized Water	Water	-----	15.00
D.	Floraesters K-100 Jojoba	Hydrolyzed Jojoba Esters (and) Jojoba Esters (and) Water (Aqua)	Floratech	5.50
	Deionized Water	Water	-----	15.00
E.	Preservative	-----	-----	q.s.
	Fragrance	Fragrance	-----	q.s.
TOTAL				100.00

Mixing Procedure - BASE

1. Combine all of the ingredients of Phase A and mix with moderate propeller agitation. Heat to 80°C.
2. Mix deionized water and Calcium Hydroxide from Phase C. Homomix until a smooth, even texture is achieved.
3. Add Phase C to Phase A and mix until uniform.
4. Mix Phase B and heat to 80°C. Add Phase B to Phase AC and mix to a uniform consistency.
5. Mix Phase D and add to Phase ABC then mix to a uniform consistency.
6. Remove from heat and cool mixture using rapid cooling method.

Typical Properties: pH 10.8 - 15.0
Viscosity: ≥ 122,000 cP

ACTIVATOR

Phase	Trade/Common Name	INCI Name	Manufacturer	Mild %wt./wt.	Regular %wt./wt.	Super %wt./wt.
A.	Deionized Water	Water	-----	q.s.	q.s.	q.s.
	Keltrol® CG-T	Xanthan Gum	CP Keltrol	0.10	0.10	0.10
	Guanidine Carbonate	Guanidine Carbonate	Acros Organic	25.00	27.00	30.00
	Glycerin, USP	Glycerin	The Dow Chemical Co.	q.s.	q.s.	q.s.
TOTAL				100.00	100.00	100.00

Mixing Procedure - ACTIVATOR

1. Slowly add Guanidine Carbonate to deionized water. Mix until completely dissolved.
2. Heat mixture to 55°C and slowly add (sieve) Keltrol CG-T. Mix until completely dissolved.
3. Add Glycerin, USP. Continue to mix and reduce heat to room temperature.

Typical Properties: pH 10.7 - 11.2

¹ Base should be used in combination with the Activator prior to hair application. The weight use ratio of Base to Activator is 3:1.

* Supplied by Essential Ingredients

Note: The information herein is based on our research and the research of others and is believed to be accurate. No guarantee of accuracy is made and the products are sold without warranty, expressed or implied and upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes. Likewise, statements concerning the possible use of these products are not intended as recommendations to use these products in infringement of any patent or in the treatment, prevention, or cure of any medical condition. (Cleared for Public Disclosure).