## **EXPANDED Hair Care Formulary**



## SOFT HOLD STYLING CREAM

(Ingredion Inc.)

In this styling cream, the Pencare DP 1015 bio-based cationic polymer provides superior deposition and conditioning. Gylstar A-31 polyol imparts plasticizing and humectant benefits, while the Farmal MD 15 filmforming polymer offers flexible hold and supple styling.

A. Water (aqua) B. Sorbitol (and) Glycerin (Glystar A-31, Ingredion Incorporated) Starch Hydroxypropyltrimonium Chloride (Pencare DP 1015,	72.05% w/w 2.00
Ingredion Incorporated)	0.75
C. Water (aqua)	3.00
Cetearyl Alcohol (and) Ceteareth-20 (Promulgen D Emulsifier, Lubrizol Advanced Materials, Inc.) Stearyl Alcohol (and) Ceteareth-20 (Promulgen G Emulsifier,	2.50
Lubrizol Advanced Materials, Inc.)	2.50
Butyrospermum Parkii (Shea) Butter	0.50
Cocos Nucifera (Coconut) Oil	1.00
Helianthus Annuus (Sunflower) Seed Oil	1.00
Theobroma Cacao (Cocoa) Seed Butter	0.50
D. Water (aqua)	5.00
E. Disodium EDTA	0.10
Maltodextrin (Farmal MD 15, Ingredion Incorporated)	3.00
F. Sodium Hydroxide	0.10
Lactic Acid	0.10
Water (aqua)	5.00
Fragrance (parfum)	0.40
Preservatives	0.50
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Procedure: Heat A to 70°–75°C. Pre-mix B and add to A. Mix until homogenous. Mix C separately, adding ingredients and heating to 70°–75°C. Once all ingredients are melted at 70°–75°C, combine C with AB and rinse with D. Mix for 10-15 min. Cool to below 45°C. Pre-mix E. Add to batch. Add remaining ingredients in order. The preservatives consist of benzoic acid, sorbic acid and benzyl alcohol. Cool to below 30°C; pH = 5.0–6.5; viscosity (RV 5 @ 20 rpm, 1 min) = 3,000–9,000 cps; stability = passed 12 weeks at 45°C

## MULTI-PURPOSE DETANGLING CONDITIONER

(Floratech)

This silicone-free, detangling conditioner rinse leaves the hair smooth and manageable. Compatible with many quaternium compounds, the Floraesters K-100 Jojoba product adds multiple benefits to conditioners including color protection, combing force reduction and decreased hair breakage. This radiant conditioner tames frizz leaving hair silky and smooth.

S y	
A. Water (aqua)	gs to 100.00% w/\
EDTA (Versene 100, NA2, The Dow Chemical Compan	y) 0.10
B. Cetyl Hydroxyethylcellulose (Natrosol Plus, Aqualon/	
Hercules)	0.10
C. Ethyl Macadamiate (Floramac 10, Floratech)	1.00
Macadamia Integrifolia Seed Oil (Floramac Macadamia	Oil,
Floratech)	1.00
Moringa Oil/Hydrogenated Moringa Oil Esters (Floralipi	ds
Moringa Butter, Floratech)	1.00
Ethylhexyl Methoxycinnamate (Eusolex 2292, EMD	
Chemicals IncRONA Cosmetic Business Unit)	1.00
Cetyl Alcohol (Lanette 16, BASF SE)	3.00
Cetearyl Alcohol (and) Glyceryl Stearate (and) Sodium	
Stearoyl Lactate (Ritamulse SCG, Rita Corp.)	4.00
Polyglyceryl-2 Stearate	1.00
Potassium Cetyl Phosphate (Amphisol K, DSM Person	al Care) 0.15
Tocopheryl Acetate	0.50
D. Propanediol (Zemea propanediol, DuPont Tate & Lyle	
Bio Products)	1.00
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	Hydrolyzed Jojoba Esters (and) Jojoba Esters (and) Water	
	(aqua) (Floraesters K-100 Jojoba, Floratech)	1.00
Ε.	Water (aqua)	5.00
F.	Preservatives	qs
	Cetrimonium Chloride (Microcare CTC30, Thor Specialties	
	(UK) Ltd.)	1.00
	Hydroxypropyltrimonium Hydrolyzed Wheat Protein	1.00
	Fragrance (parfum)	qs
G.	Water (aqua)	5.00
	Pyridoxine HCl	0.10
	Niacinamide	0.25
Η.	Citric Acid	qs
		27.20

Procedure: Combine A with moderate propeller agitation. Begin heating mixture to 75–80°C. Once completely dissolved, slowly add B to A. Keep mixing until completely hydrated. In a separate vessel, mix C at 75–80°C. Add C to AB with rapid propeller agitation at 75–80°C to create an emulsion. Once mixture is uniform, begin cooling to 50–55°C. In a separate vessel, mix D at RT. Add E and mix until uniform. Add DE to ABC with moderate propeller agitation at 50–55°C. Add F to ABCDE in the order listed with moderate propeller agitation at 45–50°C. In a separate vessel, mix G and add to ABCDEF with moderate propeller agitation at 45–50°C. Add H to ABCDEFG at 45–50°C with moderate propeller agitation. Continue cooling to RT.

## REPLENISHING DEEP CONDITIONER FOR AFRICAN HAIR

(Croda)

Restore hair with this moisturizing conditioner, which hydrates the hair and scalp and reduces breakage. Crodazoquat MCC restores hydrophobicity to hair, improves hair esthetics and delivers a consumer-perceivable improvement in feel. Keravis PE penetrates the hair cuticle, building strength from within for optimal anti-breakage benefits. DuraQuench IQ SA delivers effective, consumer-perceivable moisturization to the scalp while also providing conditioning benefits to the hair. Arlasilk PLN imparts a long-lasting, silky feel to the hair. The formula also is enriched with Cropure Almond and Apricot Kernel oils. On both relaxed and natural African hair, this formulation improves dryness attributes, including reduced breakage.

A. Water (aqua)	87.50% w/w
Linoleamidopropyl PG-Dimonium Chloride Phosphate	
Dimethicone (Arlasilk PLN, Croda)	1.00
B. Behentrimonium Methosulfate (and) Quaternium-87	
(and) Cetearyl Alcohol (Crodazoquat MCC, Croda)	2.00
Cetearyl Alcohol (Crodacol CS50, Croda)	6.00
Cetyl Alcohol (and) Isostearyl Isostearate (and) Potassium	
Cetyl Phosphate (and) Cetyl Stearate (and) Stearic Acid	
(Duraquench IQ SA, Croda)	1.00
Prunus Amygdalus Dulcis (Sweet Almond) Oil	
(Cropure Almond, Croda)	0.50
Prunus Armeniaca (Apricot) Kernel Oil (Cropure Apricot	
Kernel, Croda)	0.50
C. Water (aqua) (and) Hydrolyzed Vegetable Protein PG-Propyl	
Silanetriol (Keravis PE, Croda)	1.00
Water (a <i>qua</i> ) (and) Sodium Benzoate (and) Potassium	
Sorbate (euxyl K 712, schulke)	0.50
	100.00

Procedure: Heat A to 75–80°C while mixing. Separately heat B to 75–80°C. Add B to A while mixing. Cool to 40°C and add C. Cool to RT. Adjust pH to 4.5–5.0, if necessary; pH = 4.80; viscosity: 20,000 cPs ± 10% (RVT Spindle #TC @10 rpm @ 25°C @24 hr)

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