

# Moisturizing Shampoo for Ethnic Hair

E-0010

This shampoo is designed to provide gentle cleansing without drying or stripping hair. Conditioning is provided by **SilSense™\* A-23 silicone**, which adds shine and improves wet combing properties. Additional shine is provided by **Ultracas® \* G-20 Guerbet Ester**. The formulation is stabilized with **Carbopol® Aqua SF-1 Polymer**, which performs well with surfactants and pearlizing agents.

	INCI Name, Trade Name	Weight %	Function
<b>A.</b>	1. Deionized Water	28.91	Diluent
	2. Acrylates Copolymer (30%),	8.50	Rheology Modifier
	3. Sodium Lauryl Sulfate (30%), <b>Sulfochem™* SLS-WA Surfactant</b>	16.00	Surfactant
	4. Sodium Laureth Sulfate (3 mole, 28%), <b>Sulfochem™* ES-3 Surfactant</b>	17.00	Surfactant
	5. Cocamidopropyl Betaine (35%), <b>Chembetaine™* C Surfactant</b>	4.00	Surfactant
	6. Sodium Hydroxide (18%)	1.40**	Neutralizer
<b>B.</b>	7. Deionized Water	15.40	Diluent
	8. Sodium Hydroxide (18%)	0.60	Neutralizer
	9. Guar Hydroxypropyltrimonium Chloride, <i>Jaguar® Excell</i>	0.20	Conditioner
	10. Disodium EDTA, <i>Protacide NA-2</i>	0.05	Chelating Agent
	11. Panthenol, <i>DL-Panthenol</i>	0.20	Moisturizer
<b>C.</b>	12. Glycol Distearate (and) Laureth-4 (and) Cocamidopropyl Betaine, <b>Quickpearl™* PK-3 Pearlizer</b>	3.00	Pearlizing Agent
	13. Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Butylparaben (and) Propylparaben (and) Isobutylparaben, <i>Phenonip®</i>	0.50	Preservative
	14. Fragrance, <i>Peach Nectar Fragrance J-9388</i>	0.50	Fragrance
	15. PEG-7 Amodimethicone, <b>SilSense™* A-23 Silicone</b>	0.45	Conditioner
	16. Octyldodecyl Ricinoleate, <b>Ultracas® * G-20 Guerbet Ester</b>	1.00	Moisturizer
	17. <b>FD&amp;C Yellow No. 5 (0.1%)</b>	0.45	Dye
	18. <b>FD&amp;C Red No. 33 (0.1%)</b>	0.09	Dye
	19. Citric Acid (50%)	1.75***	Acidifying Agent

\*\*q.s. to pH 6.5

\*\*\*q.s. to pH 5.0

### Procedure:

1. Combine PART A: Add Carbopol<sup>®</sup> \* Aqua SF-1 Polymer to water. Add Sulfochem<sup>™</sup> \* SLS-WA, ES-3, and Chembetaine<sup>™</sup> \* C Surfactants with gentle mixing; neutralize to pH 6.5 with sodium hydroxide.
2. Combine PART B: Add sodium hydroxide to water and heat to ~70 °C; add Jaguar Excell, Protacide NA-2 and DL-Panthenol; continue heating until all ingredients are dissolved.
3. Add PART B to PART A.
4. Add PART C ingredients separately, in the order listed. Adjust pH to 5.0 with citric acid.

### **Product Properties:**

Appearance	Pearlescent, peach-colored liquid
pH	4.90 – 5.15
Viscosity, (mPa·s)****	5,000 – 8,000
Stability:	Passed 3 months @ 45 °C, 5 cycles freeze/thaw

Carbopol<sup>®</sup> \* Aqua SF-1 Polymer Actives, 2.6%

\*\*\*\* Brookfield RVT @ 20 rpm, 25 °C, #5 spindle, measured after 24 hours

### **Supplier References**

**Noveon, Inc. (2, 3, 4, 5, 12, 15, 16)**

Rhodia (9)

Protameen (10, 11)

Clariant (13)

Bell Flavors and Fragrances (14)

**Quantum Colours (17, 18)**

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