Cola®Quat SLCC

CTFA/INCI: Dihydroxypropyl PEG-5 Linoleammonium Chloride
CAS#: 168677-75-6

DESCRIPTION

Cola®Quat SLCC is a vegetable derived long alkyl chain cationic designed for hair care applications. As a highly substantive material, **Cola®Quat SLCC** provides lubricity and detangling to wet hair while at the same time effectively building volume and sheen.

Cola®Quat SLCC is a 40% active dihydroxypropyl PEG-5 linoleammonium chloride in water. With it's unique substantive, lubricating, detangling, anti-static and anionic compatible foaming properties; **Cola®Quat SLCC** is a superior product for use in wide range of products including: 2-in-1 shampoos, restorative conditioners, conditioning hair color, crèmes and lotions.

With our 5 years of quat manufacturing experience and using the highest quality raw materials, **Cola®Quat SLCC** is characteristically low color, low odor and reliably consistent batch to batch for the Personal Care Market.

Cola®Quat SLCC is compatible with anionics and is easily formulated into conditioning or all-in-one shampoo formulations. It is ideally suited for use on sun damaged and over-processed hair or hair made brittle from excessive blow-drying.

Cola®Quat SLCC is based on the renewable vegetable lipid found in soybean oil, making it a uniquely natural compliment for use in hair conditioners and rinses, skin crèmes and lotions. **Cola®Quat SLCC** imparts non-greasy detangling, improves dry comb and fly away, while building volume and sheen, especially with colored, permed, sun dried and damaged hair. In other applications, use **Cola®Quat SLCC** as a cationic emulsifier, and as an anti-static and softening agent in crèmes, lotions and other personal care products.

BENEFITS

- Vegetable derived
- Eliminates fly away
- Excellent wet comb properties
- Soft smooth after feel
- No greasy build-up
- Excellent body building properties

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TYPICAL PROPERTIES

Water Solubility	Soluble
Physical Appearance	Viscous liquid
Ionic Nature	Cationic
Color (Gardner 1963)	4
Solids (%)	40
pH (10% aqueous)	8.4
pH (5% IPA)	6.0 – 8.0
Specific Gravity at 25°C	1.00±0.04
Pounds per Gallon	8.3
Active quaternary (m.w.401)	38-42%
Flash Point	>200°F (PMCC)

TOXICOLOGICAL PROPERTIES

DERMAL EVALUATION (5% in water)

48 Hour	48/50 completely non-irritating
Human Patch	2/50 barely perceptible erythema
50 Test Subjects	

IN VITRO OCULAR EVALUATION (3% in water)

In Vitro International, Eyetex™ Rapid Membrane Assay

Eyetex™ Classification: Mild

APPLICATIONS

Cola®Quat SLCC is an ideal component in a wide variety of hair and skin care applications, including conditioning shampoos, hair conditioners, hairsprays, styling aids, moisturizing hair finishes, creams and lotions.

FORMULATIONS

Damaged hair, especially permed hair can be difficult to comb, especially when wet. Hair Conditioner products are generally oil-in-water emulsions in which the lipophilic conditioning quaternium ammonium salt is the active ingredient. The conditioning quat, along with the fatty alcohols impart wet-comb performance to the formulation. The superior substantive and lubricating properties of **Cola®Quat SLCC** over other conditioning cationics significally improves wet comb performance of these formulas, and others of their type, especially on damaged hair.

REJUVENATING HAIR CONDITIONER

This no-tangle formulation provides conditioning with shine. Cola®Quat SLCC provides detangling with full conditioning and a soft, smooth feel.

COMPONENT	% WT.
Water	87.1
Hydroxyethyl Cellulose	0.7
Glycol Distearate	2.0
Cetearyl Alcohol	2.5
Cola®Quat SLCC	6.7
Colonial Monolaurin	1.0
	100.0

PROCEDURE:

Charge water. Carefully add hydroxyethyl cellulose with good agitation. Heat to 70°C and add remaining ingredients. Stir cool to 45°C and adjust pH to 4.5 – 5.0. Add color, fragrance and preservative as required. Continue agitation and cool to room temperature.

TYPICAL PROPERTIES:

Physical Appearance	Milky white lotion

CONDITIONING SHAMPOO

The following mild formulation provides excellent cleansing and builds body, while leaving hair soft and manageable.

COMPONENT	% WT
Water	27.3
Colonial SLES-2	29.0
Colonial SLS	27.0
Cola®Teric CDCX-LV	10.0
Cola®Quat SLCC	6.7
	100.0

PROCEDURE:

Blend ingredients in order listed. Add color, fragrance and preservative as required.

TYPICAL PROPERTIES:

Physical Appearance	Clear yellow viscous liquid
Solids (%)	21
Viscosity @ 25°C	2000cp

REJUVENATING SHAMPOO FOR DAMAGED HAIR

COMPONENT	% WT.
Water	to 100.0
Colonial SLES-2	25.0
Colonial SLS	25.0
Cola®Teric 1C	5.0
Cola®Quat SLCC	2.5
Fragrance	q.s.
Extracts/Oils	q.s.
Preservative	q.s.

PROCEDURE:
Charge materials into water with agitation in order. Add Fragrance, Extracts/Oils such as Aloe Vera, Chamomile and Jojoba, and Preservative.

DETANGLING HAIR CONDITIONER FOR DAMAGED HAIR

	COMPONENT	% WT.
Part A	Water	to 100.0
	Cetyltrimethyl Ammonium Chloride	0.5
	Cola®Quat SLCC	1.5
Part B	Cetearyl alcohol	2.5
	Beaentrimonium Chloride	2.0
	C13-14 Isoparaffin	1.0
Part C	Propylene glycol	1.0
	Fragrance	q.s.
	Extracts/Oils	q.s.
	Preservative	q.s.

PROCEDUURE:
Part A: Mix water and Cetyltrimethyl Ammonium Chloride and **Cola®Quat SLCC**, heat to 65°C.
Part B: Mix components, heat to 65°C.
Mix Part B into Part A, and hold for 30 minutes, Cool to 45°C, add Part C.

LAST UPDATED 08/09/2006

WARRANTY

Colonial Chemical guarantees that its products meet published specifications. No other warranties or guarantees are expressed or implied because the use of this material is beyond the control of Colonial Chemical.

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