



# Cola®Fax CPE-K

Viscosity Building Emulsifier

CAS #: 19035-79-1  
EINECS #: 242-769-1



**INCI NAME:** Potassium Cetyl Phosphate

## OVERVIEW

**Cola®Fax CPE-K** is an excellent water-soluble emulsifier designed to be used as a coemulsifier with low HLB surfactants. Cola®Fax CPE-K is completely non-irritating to skin. Cola®Fax CPE-K is easily dissolved into the hot water phase during emulsion processing. Cola®Fax CPE-K, at low use concentrates, will enhance the stability of any emulsion and thicken crèmes and lotions. It can replace TEA-stearate in most preparations. Cola®Fax CPE-K is ideally suited for use in many dermatological and personal care products as an oil-in-water emulsifier providing a silky powdery afterfeel.



## APPLICATIONS

### Skin Care

- Facial care
- Body care
- Baby care
- Sun care



### Decorative Cosmetics

- Facial make-up

### Perfumes & Fragrances

- Pre & after shave lotions

## BENEFITS

- Emulsion stabilizer.
- Easy to formulate, soluble in hot water.
- Can be substituted for polyacrylate-type polymers with improved feel.
- Physically easier to use than polyacrylates.
- No dispersion, neutralization, wetting problems or fish eyes in solution.
- Good rub out and after-feel.
- Doesn't inhibit quick-break emulsions.
- Can be used as primary emulsifier.
- Excellent performance at normal skin pH.

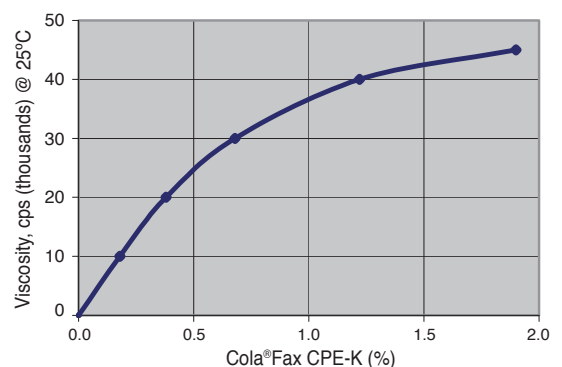
## VISCOSITY RESPONSE

Figure 1 demonstrates the effect Cola®Fax CPE-K has on emulsion viscosity. At low concentrates Cola®Fax CPE-K will effectively increase viscosity and aid in the stabilization of the emulsion system. Formulations containing Cola®Fax CPE-K will display enhanced shear, heat and freeze-thaw stability. Cola®Fax CPE-K will also enhance the glossy appearance of cosmetic crèmes.

### TEST SYSTEM

	% by Wt.
Water	q.s.
Glycerin	5.00
<b>Cola®Fax CPE-K</b>	.50 - 2.50
Cetyl Alcohol	2.00
Myristyl Myristate	2.00
Isopropyl Palmitate	2.00
Emulsion pH	7.0

Figure 1



# Cola<sup>®</sup>Fax CPE-K

## SUGGESTED FORMULAS

### Moisturizing Sunscreen (SPF 15)

A smooth, pumpable high-protection sunscreen crème which protects and moisturizes skin.

PART A	%
1 Cola <sup>®</sup> Fax CPE-K	1.2
2 Cola <sup>®</sup> Lipid ST	2.5
3 Water	79.3
4 Titanium Dioxide	0.4
PART B	
5 Cetyl Alcohol	2.0
6 C 12-15 Alkyl Benzoate	1.6
7 Isopropyl Palmitate	2.0
8 Dimethicone (200/350cS)	1.0
9 Octylmethoxy Cinnamate	6.0
10 Menthyl Anthranilate	3.0
11 Steareth-2	1.0

**Procedure:** Heat Part A with agitation to 60°C. Separately heat Part B to 60°C. Homogenize Part B into Part A for a sufficient time to ensure good emulsification. Stir, cool to 45°C, add fragrance, and package.

### Deep Moisturizing Cream

A smooth, pumpable moisturizing crème which protects and moisturizes skin.

PART A	%
1 Cola <sup>®</sup> Fax CPE-K	1.2
2 Cola <sup>®</sup> Lipid ST	2.5
3 Titanium Dioxide	0.5
4 Water	85.3
PART B	
5 Cetyl Alcohol	2.0
6 Myristyl Myristate	3.0
7 Isopropyl Palmitate	4.0
8 Dimethicone (100cS)	1.0
9 Lanolin Alcohol	0.5

**Procedure:** Heat Part A with agitation to 60°C. Separately heat Part B to 60°C. Homogenize Part B into Part A for a sufficient time to ensure good emulsification. Stir, cool to 45°C, add color, fragrance and preservative.

## TYPICAL PROPERTIES

Appearance	White Granule
% Solids	100
Melting Point	63 - 68°C
Acid Value (pH 5.0)	140 - 180

## TOXICOLOGICAL PROPERTIES

Dermal Evaluation (3% in water pH 7.0)

48 Hour Human Patch (25 test subjects)

• **Result: 25/25 Completely Non-Irritating**

In Vitro Ocular Evaluation

(3% in water pH 7.0)

Ropak, Eytex<sup>™</sup> Rapid

Membrane Assay

Eytex<sup>™</sup> Classification

• **Result: Minimal/Mild**



MEMBER

## STORAGE / HANDLING

Cola<sup>®</sup>Fax CPE-K is available in 54 kg. drums. Typical shelf life is 12 months from date of manufacture.

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