



# Cola<sup>®</sup>Fax PME

Coconut-Derived Monoalkyl Phosphate

CLEARANCES: TSCA, REACH, DSL, AICS, ENCS, KCL, IECSC

**INCI NAME:** Potassium Lauryl Phosphate

**CAS No.:** 12751-23-4

**EINECS No.:** 235799-7

## INTRODUCTION

From natural coconut fatty alcohols, Cola<sup>®</sup>Fax PME is a high purity monoalkyl phosphate developed as a high foaming, extremely mild primary surfactant for personal care formulations. Cola<sup>®</sup>Fax PME can be used alone or in combination with lauryl ether sulfates, amphoteric or other mild surfactants. Cola<sup>®</sup>Fax PME can be used in sulfate-free formulations and contains a high level of natural starting materials.



## WHY USE COLA<sup>®</sup>FAX PME?

- Extremely mild
- Naturally derived
- 1,4-dioxane free
- Virtually odorless and completely colorless
- Non-stripping to hair and skin
- Compatible with most surfactants
- Excellent foamer and cleanser

## WHAT DOES IT DO?

- Gently cleanses
- Gives silky after-feel to hair and skin
- Non-irritating to skin and eyes
- Improves foam of traditional anionics
- Provides dense, thick foam
- Sulfate-free alternative

## TYPICAL PROPERTIES

Appearance	Water, White Liquid
pH (as is)	6.5 - 8.5
Solids, %	30.0

## TOXICOLOGICAL PROPERTIES

Previous industry testing of similar compounds indicates dermal irritation to be "non-irritating." Ocular irritancy classification is predicted to be "mild."

## BIODEGRADABILITY

Based on the chemical structure of this product, we believe it to be 100% biodegradable.

## FORMULATING WITH COLA<sup>®</sup>FAX PME

Cola<sup>®</sup>Fax PME is useful for formulating ethylene oxide-free, 1,4-dioxane free, and sulfate-free personal care products. On typical formulations mixed with anionics, start with a ratio of 80:20 lauryl sulfate to amphoteric and then begin adding Cola<sup>®</sup>Fax PME to get the desired effect of mildness, after-feel and lather. Other formulations can be made entirely of Cola<sup>®</sup>Fax PME.

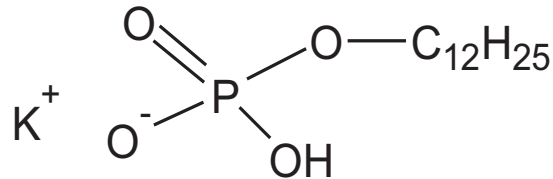




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## STRUCTURE



## TYPICAL FORMULATIONS

In the development of shampoos, traditional anionic surfactants, such as sodium lauryl sulfate and ammonium laureth sulfate, offer excellent foaming and low costs but have been associated with higher degrees of irritation. Amphoterics offer excellent mildness, but inadequate lather. Generally, as foam/lather properties of a surfactant improve, irritation increases accordingly. Our studies point to **Cola®Fax PME** as a bridge in the mildness/performance gap.

As a co-surfactant with traditional anionics and amphoterics, **Cola®Fax PME** has the potential to offer a new range of formulating options. Based on the specific requirements of a formulation, **Cola®Fax PME** can be utilized to supplement the feel and foaming of anionics and contribute to the mildness of the formulation

### SHOWER GEL

This high-foaming formulation provides gentle cleansing and leaves skin with a soft and smooth after-feel.

	<u>Weight %</u>
Cola®Fax PME (Potassium Lauryl Phosphate)	25.0
Cola®Teric CDCX-LV (Disodium Cocoamphodiacetate)	13.2
Colonial SLES-2 (Sodium Laureth Sulfate)	38.5
Ethylene Glycol Distearate	1.0
Water	<u>22.3</u>
	100.0

PROCEDURE: Add ingredients, mix and heat to 65°C. Mix until uniform. Stir, cool to 45°C, add fragrance, preservative and package. Adjust pH to 7.5.

### NON-STRIPPING SHAMPOO

This formulation will not strip permed or color-treated hair & leaves hair highly manageable.

	<u>Weight %</u>
Water	38.0
Colonial ALES-2 (Ammonium Laureth Sulfate)	30.0
Cola®Teric CA-35 (Cocoamphopropionate)	10.0
Cola®Lipid SAFL (Linoleamidopropyl PG-Dimonium Chloride Phosphate)	2.0
Cola®Fax PME (Potassium Lauryl Phosphate)	<u>20.0</u>
	100.0

PROCEDURE: Add ingredients in order listed with agitation. Adjust pH to 6.5.

