MAHAKANNI STLC CONCENTRATE

Campo Mahakanni STLC Concentrate

from *Eclipta alba*

an alternative to cancer-causing nitrosomes forming Dihydroxyacetone (DHA)

For New Novel Herbal-based Self-Tanning functional formulations

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CAMPO Multi-Purpose Cosmetic Base Chemicals & Active Ingredients
CAMPO Novel Functional Active Cosmetic Ingredients & Raw Materials

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MAHAKANNI STLC CONCENTRATE

Introduction

There are, broadly speaking, three classes of functional extracts from Mahakanni herb **Eclipta prostrata (Eclipta alba Hassk)**. These are **Maka, Mahakanni, Mahakanni STLC**.

MAHAKANNI STLC CONCENTRATE

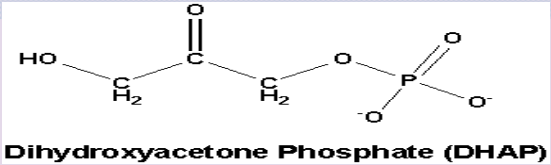
Introduction

This paper, concentrates on the functionality of Mahakanni STLC and its UV absorption components. These components are complex in nature and the action of Mahakanni relies not solely on the direct action of these components, but on their ability to react safely with components of the skin to produce an excellent and efficient self-tanning agent. It is the result of the reaction of the components of Mahakanni with the skin, that results in its excellent UV protection properties. In this respect, this interactive extract of Mahakanni is similar in function to dihydroxyacetone DHA, other natural examples of similar functionality being henna and *Sepia officinalis* (squid) and octopus.

The important components of Mahakanni STLC are DHAP,**(2-hydroxy-1,4-DHAP)** and phyto-eumelanin, a plant based novel black brown natural pigment, of Mahakanni leaf which is identical to the natural skin pigment.

MAHAKANNI STLC CONCENTRATE

Introduction



Dihydroxyacetone Phosphate (DHAP)

The self-tanning properties and functionality of Mahakanni STLC are a result of the reaction of DHAP with the skin. This is further enhanced by the natural phyto-eumelanin in a similar totally natural reaction with keratin protein which is present in the surface of the skin. This reaction of phyto-eumelanin binding to the keratin protein is identical to the final stages of melanogenesis, the forming of darker skin after initial exposure to UV-A radiation, and absorption of UV-A and UV-B. The combination of DHAP and phyto-eumelanin form the respective scleroDHAP and scleroeumelanin compounds which are both red-brown in colour and have total UV absorption properties. These products are a result similar to the well documented Mallard et Browning reaction sequence. This is similar to the reaction with DHA, but novelty lies in the red-brown natural colour that is expressly given, rather than the typical yellow colour exhibited following the reaction of DHA with keratin protein.

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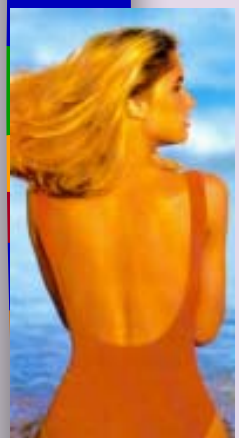
The other unique point is the presence of natural ascorbic acid in Mahakanni STLC which further reacts with DHAP to produce hydroDHAP, which is also a recognised UV absorber. Also in the extract is the presence of complex lipids, such as phosphoglyceride derivatives, the glycerophosphates, and phosphosphingolipids and the new, novel sphingomyelin, which almost certainly will spawn the next generation of therapeutic claims in the cosmoceutical industry within the next two years. Sphingomyelin reacts with the horny layer of the skin, forming a biological barrier film, which functions to tighten and firm loose skin and reduce trans epidermal moisture loss. Thus, when Mahakanni STLC is applied, a subtle tightening of the skin is felt, moisture loss is minimised through the action of this film which serves to reduce the convection of UV rays, i.e., the natural evaporation of skin moisture caused by high UV transmittance and absorption.

MAHAKANNI STLC CONCENTRATE

Introduction

Mahakanni self-tanning liposome concentrate is a combination of DHAP and phyto-eumelanin extraction and molecule isolation from *Eclipta prostraa* and brings about natural tanning of the skin, giving a particularly even and natural tan when compared to dihydroxyacetone (DHA).

The active principle(s) of the tanning action is DHAP,and phyto-eumelanin and their derivatives in addition to carotene, in a liposomal form which is water soluble.



The DHAP bonds firmly to the horny layer of the skin, showing a distinctive bronzing, with the ultimate effect in sun protection. This product exhibits a much quicker and longer lasting tanning action than DHA.

Mahakanni Self Tanning Liposome Concentrate Extract also contains stabilised Catalase Enzymes that acts on H_2O_2 at cellular level as a free-radical scavenger and reduce the hydrogen peroxide into free oxygen and water. The catalase activity is useful as a cosmetic approach for vitiligo patches.

M A H A K A N N I S T L C C O N C E N T R A T E

Specification

Product Name	MAHAKANNI self-tanning liposome concentrate extract
INCI TRADE NAME	CAMPO MAHAKANNI (INCI ID# 50922)
INCI NAME	ECLIPTA PROSTRATA EXTRACT (INCI Monograph ID# 9712)
Product #	95130-3003 MA
Specific gravity	1.100 - 1.320
pH	3.0 - 5.9
Colour	Brown liquid
Solubility	Soluble in water, fatty acids and multi-vitamin ceramide complex
Pesticides	None
Application level	*VITILIGO COSMETIC CONCEALERS 10% & SELF TANNERS 5%*

MAHAKANNI STLC CONCENTRATE

Composition

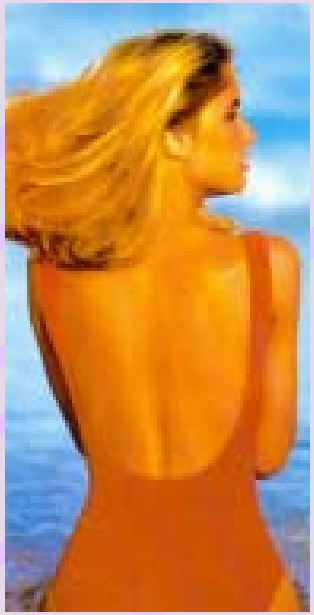
Components (partial list)	Percentage %
DHAP (2-hydroxy-1, 4-DHAP)	40.00
Phyto-eumelanin	50.00
ascorbic acid	1.50
lecithins	3.00
phosphosphingolipids	2.50
sphingomyelin	1.50
beta-carotene	0.50
thiamine	trace
malic acid	trace
niacin	trace
Catalyse Enzymes	1000 unit

MAHAKANNI STLC CONCENTRATE

STLC Dosage & Application

Mahakanni self-tanning liposome concentrate is an extract from Eclipta alba, that brings about a natural tanning of the skin, giving a particularly even and natural tan when compared to synthetic dihydroxyacetone (DHA). The tan develops quicker and is longer lasting.

Generally as an organic grown plant product, Mahakanni STLC extract is safer to use than DHA.



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STLC Dosage & Application

Mahakanni STLC may be added to the aqueous phase of emulsions, preferentially oil in water type. Liquid preparations in an aqueous form with 30% alcohol are normal.

An even application to the skin is important. Before applying the finished self-tanning preparation containing Mahakanni STLC, the skin should not be treated with creams or make-up preparations.

In some cases, especially for vitiligo affected parts, the skin area is pre-applied with a Phyto Catalase Extract containing lotion, before being applied with a Mahakanni Self-Tanner

The use of a face-mask before application of the self-tanning preparation improves the effect. The tanning effect is apparent approximately 3 hours after the application but to intensify the effect a further treatment should be repeated 2 or 3 times with an interval of 1 hour between each application. After application of the self-tanning formulation, one should not wash for approximately one hour.

However, if the preparation has been split on hands or fingers, it should be washed off immediately with soap and water.

STLC Dosage & Application

Generally a cheap variety of natural label claim cosmetics can be formulated using the following combinations:

Dihydroxyacetone	3% (dissolved in water at 38°C)
Mahakanni STLC	4%

Or

Dihydroxyacetone	4%
Mahakanni STLC	2%

Both DHA and Mahakanni STLC are dissolved in water. The temperature should not exceed 38°C for any length of time.