

5% CANNABIDIOL LIPOSOMES

Soothing, Decongestant and Antioxidant

Códe: LIPH-105



Figure 1: Cannabis Sativa plant.

Cannabidiol (CBD) is one of the main pharmacologically active phytocannabinoids of *Cannabis sativa* L. It is not “psychoactive” but exerts a number of beneficial pharmacological effects, including anti-inflammatory and antioxidant properties.

The chemistry and pharmacology, as well as various molecular targets, including cannabinoid receptors and other components of the endocannabinoid system with which it interacts has been extensively studied. Additionally, preclinical and clinical studies have contributed to our understanding of CBD's therapeutic potential for many diseases, including those associated with oxidative stress.

Due to its properties, the *Cannabis sativa* L. plant is currently attracting, increasing interest in cosmetics and dermatology.

CBD (Cannabidiol), its most applied component, has anti-inflammatory and decongestive properties and can be useful for treating many skin conditions, such as acne, eczema and psoriasis.

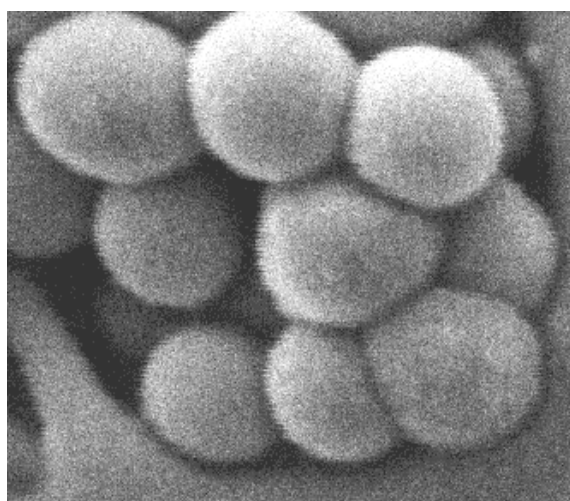


Figure 2: Electron Microscopy of Liposomes.

Liposomes are spherical microvesicles composed of parallel bilayers of phospholipids. Its size is of the order of nanometers (between 110-500 nm) in this case.

The properties of liposomes allow their potential application in various fields of medicine, the cosmetic industry, food, etc.

The interactions of liposomes with the skin are of particular importance in dermatology, especially as vehicles for various compounds for topical use and for their direct effects on the skin.

They allow encapsulating and transporting hydrophilic substances inside and lipophilic substances in their membrane.

The encapsulation of CBD in LIPOSOMES offers greater bioavailability, effectiveness and protects it from degradation and oxidation.

Liposomes penetrate deep into the skin by several mechanisms releasing CBD closer to the human endocannabinoid system (ECS) receptors than it is in the free form.

As a result, lower doses of liposome-encapsulated CBD help achieve the same effects as higher doses of free CBD.

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CODE: LIPH-105

Date of last amendment: 06.03.2023

INCI name: WATER (AQUA) (AND) CAPRYLIC/CAPRIC TRIGLYCERIDE (AND) HYDROGENATED PHOSPHATIDYLCHOLINE (AND) CANNABIDIOL-DERIVED FROM EXTRACT OR TINCTURE OR RESIN OF CANNABIS (AND) ALCOHOL DENAT (AND) PROPANEDIOL (AND) CAPRYLYL GLYCOL (AND) TOCOPHEROL.

DESCRIPTION: Hydrogenated phosphatidylcholine liposomes encapsulating Cannabidiol and Vitamin E as an antioxidant and membrane stabilizer. "THC content, less than 0.05%".

COMPOSITION (INCI NAME)	% (weight)	CAS #
Water (Aqua)	69,400	7732-18-5
Caprylic/Capric Triglyceride	8,000	73398-61-5/ 65381-09-1
Hydrogenated Phosphatidylcholine	7,000	97281-48-6
Cannabidiol-Derived from extract or tincture or resin of cannabis	5,000	13956-29-1
Alcohol Denat	5,000	64-17-5
Tocopherol	0,100	59-02-9
Conservantes:		
Propanediol	5,000	504-63-2 / 26264-14-2
Caprylyl Glycol	0,500	1117-86-8

Particle size:	110 – 500 nm (DLS).
Manufacturing method:	Microfluidization.
Net charge of the liposome:	Negative.
Type of liposome:	Oligo-unilamellar.
Color:	White to light yellow.
Appearance:	Opalescent liquid to slightly viscous fluid. Note: Over time in the fridge it can become creamy.
Odor:	Mild, pleasant.
pH:	6,00 – 7,50 (25°C) (USP XXVII).
Density:	0,970 – 1,050 (pycnometer) (20°C) (USP XXVII).
Assay of CBD in newly developed liposome	5,00% +- 0,50% (Method: HPLC-UV, with gradient).
Dry residue:	20,00 gr % minimum (0,5 gr. 1 hour 110° C).
Microbiological control:	Mesophilic bacteria: less than 100 CFU/gr. Moulds & yeast: less than 20 CFU/gr. No pathogens.

Keep refrigerated (5-15°C). Do not freeze. Protect from light. Shake before use.

EXTERNAL COSMETIC USE