

# Hemp active ingredient extract

Raw extract of *Cannabis sativa L.* leaves and buds  
5 - 14 % CBD+CBDA; 1.5 - 6.0% CBG+CBGA;  
THC < 0.2%\*

\*Exact concentrations will vary between batches

## BACKGROUND

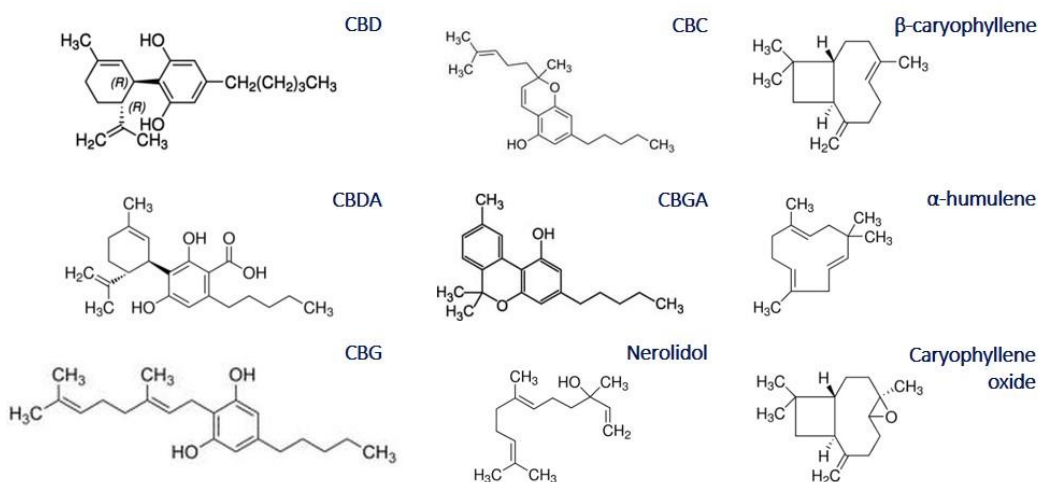
A growing number of studies indicate that hemp plant (*Cannabis sativa L.*) based natural remedies have relevant medicinal and cosmeceutical value<sup>1,2</sup>. Cannabis plant contain >500 phytochemical compounds with scientifically confirmed biological activities.

Cannabinoids are a heterogenous group of biologically active terpene phenols specific for cannabis plant<sup>3</sup>.

The most abundant of the cannabinoids are CBD (cannabidiol) and it's precursor CBG (cannabigerol)<sup>4</sup>. Other terpenes, such as  $\beta$ -caryophyllene and  $\alpha$ -humulene, as well as cannflavins and flavonoids are inherent in the extracts. Following the "entourage effect", various cannabis compounds work together to create unique effects and magnify benefits of the extract<sup>5</sup>.

<b>PROPERTIES</b>	Raw extract of <i>Cannabis sativa L.</i> leaves and buds with characteristic taste and odor. Partially soluble in water, oil, ethanol, propylene glycol. Does not contain a preservative.
<b>INCI</b>	Beta glucan
<b>SAFETY AND QUALITY</b>	Not classified as narcotic. To be used in accordance to national regulations. Manufactured under GMP and validated by appropriate analytical methods. The quality of cannabis is assured through sustainable cultivation process. Extracts prepared from organic cannabis material.
<b>APPLICATIONS</b>	Skin lotions, anti-aging products, skin serums, masks, special skin treatments, makeup.
<b>STORAGE</b>	Store in tight containers, protect from light. Keep below 25 °C.
<b>COUNTRY OF ORIGIN</b>	EU

## ACTIVE INGREDIENTS



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5 - 14 % CBD+CBDA; 1.5 - 6.0% CBG+CBGA;  
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## CONTENTS AND BENEFITS

Extract rich in cannabidiol (5.4 % CBD+CBDA) and CBG (6.0% CBG+CBGA) and terpenes. THC-free.

### CANNABINOIDS

COMPOUND (CAS No.)	CONTENTS, % (w/w)
CBD, Cannabidiol (13956-29-1)	2.6
CBDA, Cannabidiolic acid (1244-58-2)	2.9
CBG, Cannabigerol (25654-31-3)	3.5
CBGA, Cannabigerolic acid (25555-57-1)	2.5
CBC, Cannabichromine (20675-51-8)	0.07
CBN, Cannabidinol (521-35-7)	<0.0
THC, Tetrahydrocannabinol (1972-08-3) and THCA, Tetrahydrocannabinolic acid (23978-85-0)	<0.2

### BENEFITS

- Recent data suggest that cannabinoids are involved in neuro-immuno-endocrine modulation of skin functioning.
- It demonstrates an inhibitory effect on skin inflammation, proliferation, fibrosis, pain, and itch—biological mechanisms involved in the pathogenesis of many dermatologic conditions<sup>6,7</sup>.
- CBD or cannabidiol has potential as an anti-aging, antibacterial, moisturizing and conditioning agent in cosmetics<sup>8</sup>.

### MAJOR TERPENES

COMPOUND (CAS No.)	CONTENTS, % (w/w)
$\beta$ -caryophyllene (87-44-5)	0.46
Caryophyllene oxide (1139-30-6)	0.26
$\alpha$ -humulene (6753-98-6)	0.20
Cis-Nerolidol (7212-44-4)	0.04

### BENEFITS

- $\beta$ -caryophyllene is known as a perfuming, skin conditioning and masking agent in cosmetics<sup>2</sup>.
- $\beta$ -caryophyllene and  $\alpha$ -humulene are acknowledged for their anti-inflammatory, anti-proliferative activities<sup>2</sup>.
- Nerolidol – concentrated aromatic and flavor ingredient; skin penetration enhancer activity<sup>9</sup>.

### REFERENCES

- 1 - <https://doi.org/10.1016/j.drugpo.2019.03.006>;
- 2 - <https://doi.org/10.1016/j.ejmech.2018.07.076>;
- 3 - <https://doi.org/10.1155/2018/1691428>;
- 4 - <https://doi.org/10.1016/B978-0-12-800756-3.00115-0>;
- 5 - doi: 10.1038/d41586-019-02528-1
- 6 - <https://doi.org/10.1007/s40261-020-00894-7>;
- 7 - <https://doi.org/10.1007/s40257-018-0410-5>;
- 8 - [https://doi.org/10.1300/J237v09n01\\_06](https://doi.org/10.1300/J237v09n01_06);
- 9 - doi:10.3390/molecules21050529