

## Hemp Max with VESIsorb® Broad-Spectrum Hemp Oil

### DESCRIPTION

Hemp Max with VESIsorb® from Douglas Laboratories® offers pure hemp oil specially formulated with the VESIsorb® colloidal delivery system to provide enhanced absorption of its fat-soluble constituents. Broad-spectrum hemp oil is extracted with CO<sub>2</sub> from the *Cannabis sativa* plant and tested to ensure the THC levels are not detectable. It includes 25 mg of cannabidiol (CBD), 10 mg of beta-caryophyllene (BCP), and other terpenes in small, easy-to-swallow softgels.

### FUNCTIONS AND MECHANISMS OF ACTION

Hemp is defined as a tall, widely cultivated herb (*Cannabis sativa*) of the Cannabaceae family with tough phloem fiber. Evidence of cannabis use from a scientific perspective was discovered in the 19th century. It was not until the late 1980s that scientists identified the first endocannabinoid, a conjugate of arachidonic acid and ethanolamine that was named “anandamide,” from the Sanskrit word “ananda,” meaning bliss. Today there are hundreds of different chemical compounds identified to exist in the *Cannabis sativa* plant. Phytocannabinoids, a class of compounds that interact with the body’s endocannabinoid system, include cannabidiol and structurally diverse terpenes, including beta-caryophyllene and limonene. While cannabidiol is specific to hemp, terpenes and other phytocannabinoids also occur in other herbs, spices and other plants.

The endocannabinoid system (ECS) is an internal homeostatic regulatory system that serves to limit excitatory neurotransmission. It consists of four components: 1) G protein-coupled cannabinoid CB1 and CB2 receptors; 2) endogenous endocannabinoids that target these receptors, and possibly others; 3) enzymes that catalyze endocannabinoid biosynthesis and metabolism; and 4) mechanisms involved in cell accumulation of specific endocannabinoids. Endogenous endocannabinoids play a fundamental role in regulating pleasure, relaxation, memory, thinking, concentration, body movement, awareness of time, appetite, pain, and sensory processing and brain development. They are produced on-demand in response to excitatory neurotransmission and travel in retrograde fashion to inhibit further neurotransmitter release. Research done on the system has shown that the ECS has receptors throughout the body, including in the brain, organs, connective tissues, glands, and immune cells. Because phytocannabinoids are insoluble in water, their absorption is limited in the body.

VESIsorb® is a patented colloidal system that allows phytocannabinoids to cross the intestinal barrier in a water-soluble droplet. The droplets easily disperse and diffuse across the water layer of the intestinal barrier, improving absorption. Studies show that the VESIsorb® delivery system provides significant improvements in absorption and bioavailability of poorly soluble phytochemicals, including cannabidiol, as demonstrated in a recent pharmacokinetic study.

### FORMULA (#202523)

1 softgel contains:

VESIsorb® Hemp Oil extract..... 334 mg

[*Cannabis sativa*, seed, stalk, stem] Providing 35 mg phytocannabinoids and terpenes including beta-caryophyllene

Other ingredients: Medium-chain triglycerides, vitamin E (tocophersolan), mono-and diglycerides, fatty acids, natural flavor, capsule shell (bovine gelatin, glycerin, carob and water)

Hemp Max contains CO<sub>2</sub>-extracted, U.S.-sourced agricultural hemp.

**Non-GMO, Gluten-Free**

### SUGGESTED USE

Adults take 1 capsule daily with meals or as directed by a health care practitioner.

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### SIDE EFFECTS

No adverse side effects reported.

### STORAGE

Store in a cool, dry place, away from direct light. Keep out of reach of children.

### REFERENCES

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For more information on Hemp Max with VESIsorb® visit [douglaslabs.com](http://douglaslabs.com)

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