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ABOUT US

Champlain Valley Organics and Vermont Pure CBD began in the fall of 2017 with the goal of producing the best organically grown, Full-Spectrum CBD products on the market. We are dedicated to growing our own hemp, extracting our own oil and handcrafting all our Full-Spectrum products right here in Shoreham, Vermont. Our small team has well over two decades of combined horticultural experience – from greenhouse production, organic farming and laboratory work, to large-scale field operations of organically grown, ornamental and vegetable crops. We have come together to bring our customers the best that hemp has to offer. Our Full-Spectrum products give our customers everything in the bottle that is in this amazing plant.

We pride ourselves on offering superior products at fair prices that are responsibly produced and made with integrity. We will never cut corners in any aspect of our operation; from choosing the right genetic material for growing our crop to harvesting, curing, extracting and manufacturing. Unlike most CBD companies, we control the process every step of the way, test our products in-house at every stage and have up to date third-party testing on every product.

From soil to oil, our entire production process is done on-site. Our ethanol extraction and oil refinement processes allows us to create products containing top-tier 100% active (decarboxylated) Full-Spectrum CBD oil which includes the hundreds of other synergistic compounds in the cannabis plant that make it so effective.

Our passion is infused in every product we make and in everything we do. From the bottom of our hearts, thank you. Sincerely, The Vermont Pure CBD Team.



OUR PRODUCTS

CBD can be taken orally, applied to the skin or inhaled.

Internal Products: Tinctures and capsules, are taken orally and generally take 30 to 60 minutes to take effect. Once digested, effects are long lasting, remaining in the system for 6 – 8 hours. With tinctures, bioavailability (the proportion of a substance which enters circulation when introduced into the body and so is able to have an active effect) is highest when taken under the tongue allowing access to the sub-lingual vein and mucus membranes for rapid entrance into the bloodstream. Capsules are swallowed and enter the bloodstream through the digestive tract. Capsules provide precise and consistent dosing which is helpful for long term applications which require a consistent level of CBD in the system. Vaping CBD through low temperature inhalation affects the body through the lungs and is the most bioavailable and rapid way to ingest CBD.

Topical Products: Salves and roll-ons are applied to the skin for localized transdermal effect .

It acts in as little as 15 minutes and lasts 2 - 4 hours.

They are useful for issues within one inch of the surface of the skin. Deeper penetration does not occur.

CBD Products And Drug Tests

Although Full-Spectrum CBD products contain 0.3% or less of the psychoactive compound, tetrahydrocannabinol (THC), it is possible for Full-Spectrum Products to trigger a positive result on a drug test.

How do I store CBD

While our products do not require refrigeration, we recommend storing your CBD oil in a cool dry place and out of direct sunlight. Make sure to shake well before each use. Ensure the cap is closed airtight after each use. Refrigeration is not necessary but may prolong shelf life. After storing tinctures shake well, as the natural waxes may settle.





SALVE/BALM

Our topical balms come in two sizes. All our products contain only natural ingredients. We combine almond oil, local Vermont beeswax, coconut oil, shea butter, a little olive oil and our Full-Spectrum active CBD oil in-house to create our salves. Compounding individual ingredients allows us to source each component independently according to our highest standards. More often than not, other producers use a pre-manufactured product and just add the CBD component. Our process sets us apart and ensures unmatched quality. In addition to the consistency and non-greasy residue of our salve, our customers say they like the fact that our salve doesn't have the typical cannabis odor or green color.

Four scent options available:

- Natural (unscented)
- Lavender
- Eucalyptus
- Wintergreen, Camphor, Pine (WCP)

Available in the following concentrations with the option of arnica

- | | | | |
|--------------------|-------------|----------|-------------|
| • 1oz. - 250mg CBD | ... \$25.00 | w/arnica | ... \$30.00 |
| • 2oz. - 500mg CBD | ... \$45.00 | w/arnica | .. \$55.00 |



EXTRA STRENGTH

As requested by popular customer demand, we have created Extra Strength Topical options for all our salves. The Extra Strength options are twice the concentration of our original offerings.

They are available in the following with the option of Arnica.

- | | | | |
|---------------------|-------------|----------|---------|
| • 1oz. - 500mg CBD | ... \$45.00 | w/arnica | \$50.00 |
| • 2oz. - 1000mg CBD | ... \$85.00 | w/arnica | \$95.00 |

WHY USE ARNICA?

Arnica comes from the perennial flower Arnica Montana which grows naturally in the mountains of Europe and Siberia. Salves and ointments made from the flowers are often used to relieve muscle soreness, bruising, and help reduce swelling and inflammation. Historically, Arnica has been used for centuries as an herbal medicine. Clinical studies show that the primary active ingredients in this flower are helenalin and other sesquiterpene lactones.



SALVE/BALM STICKS

Our same, effective salve formula and concentration is also available in a convenient alternative application option. Each stick contains 18 ml (0.62 oz.) of salve with either 150mg CBD or 300mg of CBD and is available in all of our four scent choices and with the option of Arnica.

- Natural (unscented)
- Lavender
- Eucalyptus
- Wintergreen, Camphor, Pine (WCP)

Available in the following concentrations

- | | | |
|--------------------------|-------------|---------------------|
| • (0.62 oz.) - 150mg CBD | ... \$18.00 | w/Arnica ...\$21.00 |
| • (0.62 oz.) - 300mg CBD | ... \$32.00 | w/Arnica ...\$35.00 |

Base Ingredients:

- | | |
|---|---|
| <ul style="list-style-type: none">• Full spectrum active CBD oil• Local Beeswax• Refined Shea Butter• MCT Oil• Almond Oil• Olive Oil | <ul style="list-style-type: none">• Pure Lavender Essential Oil• Pure Eucalyptus Essential Oil• Pure Wintergreen Essential Oil• Pure Camphor Essential Oil• Pure Pine Essential Oil |
|---|---|





LIP BALM

Local Vermont beeswax, shea butter, fractionated coconut MCT oil and our Full-Spectrum active CBD oil are the ingredients which we combine in-house, along with the correlating flavoring. This allows us to source each ingredient independently and according to our highest standards, just like our salves. More often than not, most other producers use a pre-manufactured product and just add the CBD component, so our process sets us apart and ensures unmatched quality!

Available in 50mg CBD in the following flavor options.

- 1oz. - 50mg CBD ... \$8.00
- Natural (unscented)
- Lemon
- Chocolate
- Vanilla
- Blueberry
- Cherry
- Strawberry Cheesecake

Base Ingredients:

- Our Full Spectrum active CBD oil
- Local Beeswax
- Refined Shea Butter
- MCT Oil
- Correlating Flavor

BATH BOMBS

30mg

60mg

100mg



We are happy to announce our new line of Full-Spectrum CBD Bath Bombs. These measure 2 1/4" in diameter and weigh 4 ounces each. They are individually shrink wrapped to preserve freshness and provide a moisture barrier for increased longevity. They are available in 3 different CBD concentrations and 4 great scents, plus an unscented natural option! We proudly make these ourselves in-house, which allows us to source each ingredient individually and according to our highest standards and values. We don't use any preservatives, unnecessary ingredients or dyes to keep them as natural as possible.

Base Ingredients:

- Our Full-Spectrum active CBD oil
- Baking Soda
- Citric Acid
- Epsom Salt
- Grapeseed Oil
- Fragrance Oil

Available in the following concentrations and scent options

- 30mg CBD ... \$10.00
- 60mg CBD ... \$14.00
- 100mg CBD ... \$18.00
- Natural
- Lavender
- Rose
- Wisteria/Lilac
- Eucalyptus

LOTIONS



Lotions are available in 3 sizes, and in different CBD concentrations with 8 scent options of each variant.

We proudly formulate these ourselves, purposefully selecting only necessary ingredients, and hand craft them small batch style in-house from scratch. They are completely phthalate free, quick absorbing and non-greasy!

Available in the following concentrations and flavor options

- | | |
|-----------------------|---------------------|
| • 1.1oz. - 250mg CBD | ... \$25.00 |
| • 2.2oz. - 500mg CBD | ... \$45.00 |
| • 2.2oz. - 1000mg CBD | ... \$85.00 |
| • 4.4oz. - 1000mg CBD | ... \$80.00 |
| • 4.4oz. - 2000mg CBD | ... \$145.00 |
-
- | | |
|---------------|------------------------------------|
| • Lavender | • Wintergreen, Camphor, Pine (WCP) |
| • Apricot | • Eucalyptus |
| • Pomegranate | • Warm Vanilla |
| • Rose | • Natural (unscented) |

Base Ingredients:

- Our own Full Spectrum, active CBD Oil
- Water
- Sweet Almond Oil
- Shea Butter
- Vegetable Glycerin
- Stearic Acid
- Cetearyl Alcohol
- Polysorbate 60
- Lactobacillus Ferment (natural preservative & antimicrobial)
- Fragrance – in scented options



ROLL-ONS

Roll-ons are a convenient way to use CBD. We offer five different scent options. Ingredients are, as always, high-quality and meet our demanding standards. The Roll-ons contain our Full-Spectrum active CBD oil in fractionated coconut MCT oil. The refreshing lemon/eucalyptus scent contains lemon oil, lemongrass oil, and eucalyptus oil. The delicious coconut scent includes jojoba seed oil, coconut oil, and coconut fragrance. The relaxing lavender scent includes pure lavender oil. Each roll-on features a sturdy metal rollerball.

Available in the following concentrations and flavor options

- 10ml. - 100mg CBD ... **\$20.00**
- 10ml. - 200mg CBD ... **\$35.00**

Base Ingredients:

- Full Spectrum active CBD Oil
- MCT Oil
- Pure Lavender Essential Oil
- Pure Eucalyptus Essential Oil
- Pure Lemon Essential Oil
- Pure Lemongrass Essential Oil
- Pure Wintergreen Essential Oil
- Pure Camphor Essential Oil
- Pure Pine Essential Oil
- Coconut scent



MASSAGE OIL

Take your massage to a whole new level! Available in three calming scents, Ingredients include our Full-Spectrum active CBD oil in: grapeseed oil, eucalyptus oil, lavender oil, or a wintergreen-camphor-pine blend, depending on the scent chosen.

Available in the following concentrations and flavor options

- 2oz. - 250mg CBD ... **\$25.00**
- 2oz. - 500mg CBD ... **\$50.00**

Base Ingredients:

- Our Full-Spectrum active CBD Oil
- Grapeseed Oil
- Pure Lavender Essential Oil
- Pure Eucalyptus Essential Oil
- Pure Wintergreen Essential Oil
- Pure Camphor Essential Oil
- Pure Pine Essential Oil



TINCTURES



Our USDA Certified Organic Tinctures are available in a wide variety of sizes & flavors, and are handcrafted using only natural organic ingredients. Our own grown and extracted true Full-Spectrum active CBD oil and fractionated coconut MCT oil are the base of every tincture. Our natural tincture has a rich hemp flavor and we also offer two additional options of peppermint and orange.

Tinctures are available in the following flavor options.

- Natural (Hemp) flavor
- Orange
- Peppermint

Tinctures are available in the following concentrations

- 1/3oz. – 100mg CBD ... \$12.00
- 1oz. - 300mg CBD ... \$30.00
- 1oz. - 600mg CBD ... \$50.00
- 1oz - 1200mg CBD ... \$90.00
- 2oz - 2400mg CBD ... \$170.00
- 1oz. - 1800mg CBD ... \$130.00
- 2oz. - 3600mg CBD ... \$240.00

Why Use MCT Oil?

MCT, or Medium-Chain Triglycerides, are fatty acids fractionated from raw coconut oil by applying heat. MCT oil is often used in the health industry for its many benefits, including promoting weight loss, reducing lactic buildup, fighting bacterial and yeast growth, and maintaining blood sugar levels. Topical applications are also known to produce anti-inflammatory, anti-bacterial, antioxidant, and skin barrier repair effects. Used in CBD products they have many positive effects including increased absorption (bioavailability), and increased shelf stability.

Ingredients

- Our Full Spectrum USDA Certified Organic active CBD oil
- USDA Certified Organic MCT (Fractionated coconut oil)
- Flavored tinctures also contain USDA Certified Organic oil extract (ie. Orange, Peppermint) in Organic Sunflower Oil

CAPSULES



Ingredients:

- Full Spectrum active CBD oil
- MCT (Fractionated coconut oil)
- Vegetarian capsules

Our capsules come in three dose strengths, with three quantity options of 30, 60 or 90 count. The capsules contain our Full-Spectrum active CBD oil, terpenes and flavonoids as well as fractionated coconut MCT oil, which aids the absorption and metabolism of our CBD. The capsule components, made of cellulose and water, are vegetarian-friendly and gluten-free. Capsules are a great option for those that do not like the taste of tincture. Easy to handle and accurately dosed, capsules can be kept in a weekly pill holder as a part of a planned regimen. Our extra strength 35mg capsules are for those that need a solid dose.

Capsules are available in the following concentrations

- | | |
|-------------------|--------------|
| • 30ct - 15mg CBD | ... \$30.00 |
| • 60ct - 15mg CBD | ... \$55.00 |
| • 90ct - 15mg CBD | ... \$80.00 |
| • 30ct - 25mg CBD | ... \$45.00 |
| • 60ct - 25mg CBD | ... \$85.00 |
| • 90ct - 25mg CBD | ... \$130.00 |
| • 30ct - 35mg CBD | ... \$60.00 |
| • 60ct - 35mg CBD | ... \$115.00 |
| • 90ct - 35mg CBD | ... \$170.00 |





VAPE PEN CARTRIDGES

Our disposable cartridges contain just two ingredients: Full-Spectrum active CBD oil and fractionated coconut MCT oil. They have a natural cannabis flavor representative of the variety of hemp we grow, with a very smooth smoke. The oil is an ideal viscosity for use in a wide range of vape pens, including those with lower heating capabilities. The cartridges are 0.5 ml. reservoir-sized with a standard 510 thread, which fits most batteries or pens on the market. The cartridges sport a ceramic tip, Pyrex glass housing, and a ceramic heating coil.

Available in 200mg cartridges Broad Spectrum from Lifter CBD Hemp

- Lifter CBD ... \$30.00





HONEY

Raw, unprocessed honey from Champlain Valley Apiaries is infused with our Vermont farm-grown and extracted Full-Spectrum CBD oil and a few drops of MCT oil, which facilitates absorption and bioavailability. Each jar contains 6.2 ounces of raw honey and either 250mg or 500mg of our CBD oil.

Available in the following concentrations:

- 6.2oz. - 250mg CBD ... **\$25.00**
- 6.2oz. - 500mg CBD ... **\$50.00**
- Our 250mg jar contains 25 teaspoon servings, each containing 10mg CBD
- Our 500mg jar contains 25 teaspoon servings, each containing 20mg CBD

- Champlain Valley Apiaries was a natural choice for a collaboration. Chaz Mraz and his father before him have been raising bees for over 85 years. They supply the local beeswax that we use in our topical products and the raw unfiltered honey for our CBD Honey. Supporting local, family-owned, quality companies like Champlain Valley Apiaries is important to us at Vermont Pure CBD. Strengthening the community and encouraging responsible products is part of our philosophy.
- Find our informative video on our social media and YouTube about our collaboration and how our CBD honey is made.



PET CBD

It's important to understand that pets have a endocannabinoid system that is even more sensitive than that of humans. Because of this sensitivity, always start with a lower dose and increase the dosage as appropriate. Treats may be the easiest product to administer to dogs as they gobble them right down. These treats have a pumpkin flavor that dogs love. The pet tincture is naturally flavored and can be administered to any of your furry friends, mixed into their food, or taken by mouth. Dosage can be easily measured by the graduations on the dropper. Administering oil directly allows the CBD to take effect quickly.

CBD DOG TREATS

Mellow Mutts CBD Dog Biscuits: pumpkin flavor. Each treat contains approximately 5mg of our full-spectrum CBD and is made right here in Vermont using all organic ingredients. The treats come in stand-up pouches with a zip-lock tops. (Approximately 38- 40 biscuits per 8 oz. bag)

Available in one size

- 8oz. Bag ... **\$20.00**

Ingredients:

- Our Full-spectrum active CBD oil
- Organic whole barley flour
- Organic pumpkin and maple powder
- Organic applesauce
- Organic allspice
- Organic Sage
- Organic Canola Oil



Pet Tincture Dosage
Concentration in Milligrams

Weight Of Pet in Pounds	10lb	1mg	2mg	3mg
	20lb	2mg	4mg	6mg
	30lb	3mg	6mg	9mg
	40lb	4mg	8mg	12mg
	50lb	5mg	10mg	15mg
	60lb	6mg	12mg	18mg
	70lb	7mg	14mg	21mg
	80lb	8mg	16mg	24mg
	90lb	9mg	18mg	27mg
	100lb	10mg	20mg	30mg
	110lb	11mg	22mg	33mg
	120lb	12mg	24mg	33mg
	130lb	13mg	26mg	39mg
	140lb	14mg	28mg	41mg
	150lb	15mg	30mg	45mg



PET TINCTURE

Our USDA Certified Organic Pet Tincture is available in 300mg CBD concentration in a 1oz. (30ml.) bottle. Ingredients simply include our full-spectrum active CBD Oil and fractionated coconut oil. The applicator has graduation lines on the dropper to facilitate accurate dosing.

Available in 30ml Bottle

- 1oz. - 300mg CBD ... **\$30.00**



CBD CHOCOLATE

Dark Chocolate

Fair Trade Certified cacao beans and cocoa butter are the base for this delectable treat. Graciously made for us by Daily Chocolate, right around the corner from our store in Vergennes, VT. Each 72% Dark Chocolate bar contains a total of 120mg of our CBD oil – there are twelve, 10mg. individual sections.

Milk Chocolate

We've teamed up with another local Vermont chocolate maker (Farmhouse Chocolates in Bristol) and are happy to offer our CBD Chocolate Bars in a 38% Milk Chocolate option. These do have a slightly stronger hemp flavor compared to our Dark Chocolate but are still delectable! Each 38% Milk Chocolate bar contains a total of 120mg of our CBD oil – there are twelve, 10mg. individual sections.

Available in two options:

- 120mg 72% Dark CBD Chocolate ... \$20.00
- 120mg 38% Milk CBD Chocolate ... \$20.00

****Produced in a facility that uses peanuts, tree-nuts, eggs, soy, gluten & dairy.**

Ingredients:

Full Spectrum active CBD Oil & Accompanying Terpenes

Cacao Beans**

Cane Sugar

Cocoa Butter**

Sunflower Lecithin

Vanilla Beans

** Fair Trade Certified by FairTradeUSA.org



INFORMATION AND EDUCATION

WHAT IS CBD?

CBD is an abbreviation for Cannabidiol, a naturally occurring, non-psychoactive cannabinoid found in the cannabis plant. Cannabinoids are a group of chemical compounds that are most commonly found in, but not exclusive to, cannabis. By stimulating the endocannabinoid system, CBD can promote homeostasis in the body.

The term CBD has now become a term widely used in the industry, referring to anything that contains CBD as the active ingredient. Despite its long history of use there are few scientific studies conducted on the effects of CBD. But the popular consensus is that CBD is effective, and the popularity of this compound continues to grow through word of mouth.

The cannabis plant produces a wide range of compounds. Over 120 different cannabinoids have been identified in this plant, with many more still to be discovered. The major compounds include: CBD, THC, CBC and CBG, each of which has useful applications. Products that contain a wide range of compounds in addition to CBD are known to have greater therapeutic effects than products that contain just CBD Isolate. This is known as the "Entourage Effect".

The difference between "Marijuana" and "Hemp" is rooted in its historical use and legal definitions. All hemp is cannabis and when grown pursuant to proper license, and with less than 0.3% THC, is designated Industrial Hemp by Federal Statute and is legal in the United States. Cannabis is in the family Cannabaceae and has three sub-species that are now formally recognized: Cannabis Sativa L., Cannabis Indica, and Cannabis Ruderalis. It is from these three species that 99% of all Hemp and Marijuana varieties are derived. It is the hybridization and breeding of these strains that create the diversity in this plant. CBD is produced in the greatest concentrations during the flowering stages of the plant's life. CBD is produced predominantly on the Trichomes and plant hairs on the exterior of the plant. These structures contain the majority of the oil and alkaloid extracted for Full-Spectrum products.

HISTORY OF CANNABIS

Cannabis is believed to have evolved on the steppes of Central Asia, specifically in the regions that are now Mongolia and southern Siberia. The use of this plant dates back 12,000 years, which places the plant among humanity's oldest cultivated crop. The first recorded medicinal use dates to 4,000 B.C. in ancient China where the herb was used for an anesthetic during surgery. Coastal farmers brought cannabis to Korea around 2,000 B.C. and it spread into India. The Arathaveda during this period states: "We tell of the five kingdoms of herbs headed by Soma; may it and kuca grass, and bhang and barley, and the herb sana (cannabis) release us from anxiety." From there, Germanic tribes brought the drug into Germany, and into Britain during the 5th century with the Anglo-Saxon invasions. Over the next several centuries, cannabis migrated to various regions of the world, traveling through Africa, reaching South America in the 19th century, and eventually reaching North America.

Cannabis finally made its way into the southern United States with immigrants fleeing during the Mexican Revolution at the beginning of the 20th century. In A Historical Geography of Cannabis, Barney Warf writes, "Many early prejudices against marijuana were thinly veiled racist fears of its smokers, often promulgated by reactionary newspapers. Mexicans were frequently blamed for smoking marijuana, property crimes, seducing children and engaging in murderous sprees." Domestic production flourished until after the Civil War, when imports and other domestic materials replaced hemp for many purposes. In the late nineteenth century, marijuana became a popular ingredient in many medicinal products and was sold openly in public pharmacies. It was so important in fact, that in 1619, Virginia passed a law requiring hemp to be grown on every farm in the colony. In 1915, Utah was the first state to outlaw cannabis use. By 1931 28 more states followed suit. In 1930, Harry Aslinger became the first commissioner of the Federal Bureau of Narcotics (FBN) and undertook multiple efforts to make marijuana illegal in all states. In 1937, the Marijuana Tax Act put cannabis under the regulation of the Drug Enforcement Agency, criminalizing possession of the plant throughout the country.

Concern about the rising use of marijuana and questionable research linking its use with crime and other social problems at this time, created pressure on the federal government to take action. Rather than promoting federal legislation, the Federal Bureau of Narcotics strongly encouraged state governments to accept responsibility for control of the problem by adopting the Uniform State Narcotic Act. The Propaganda film "Reefer Madness" attempted to teach parents the about the dangers of cannabis use and defined the era.

During World War II, imports of hemp and other materials crucial for producing marine cordage, parachutes and other military necessities became scarce. In response the U.S. Department of Agriculture launched its "Hemp for Victory" program, encouraging farmers to plant hemp by giving out seeds and granting draft deferments to those who would stay home and grow hemp. By 1943, American farmers registered in the program harvested 375,000 acres of hemp.



The first discovery of an individual cannabinoid was made when British chemist Robert S. Cahn reported the partial structure of Cannabinol (CBN) in 1940. Two years later, American chemist, Roger Adams, made history when he successfully isolated the first cannabinoid, Cannabidiol (CBD). His research also later led him to discover Tetrahydrocannabinol (THC). Later, Dr. Raphael Mechoulam made the first breakthrough towards understanding the effects of individual cannabinoids. In 1963, he successfully identified the stereochemistry of CBD and discovered that CBD was not a psychoactive compound. In a little publicized study by Dr. Mechoulam conducted in the 1980s, eight subjects were administered daily doses of 300mg of CBD. After just four months of treatment, half of the subjects stopped having seizures. Less than a decade later, interest in the therapeutic applications of cannabinoids revealed the discovery of additional cannabinoids, further understanding of cannabinoid structure, and the amazing breakthrough of our body's Endocannabinoid System (ECS) – a network of receptors that interact with the ligands found in cannabinoids.

The Hemp Farming Act of 2018 removed Industrail Hemp (defined as cannabis grown with an appropriate license and with less than 0.3% THC) from Schedule I of the Controlled Substances Act, making it an ordinary agricultural commodity.



At this time, after twelve years of research, Henry Ford in 1941 presented a groundbreaking invention: his hemp fueled and hemp cellulose-plastic prototype car. The panels composed of 70% cellulose hemp fibers proved to have the impact strength 10 times stronger than steel. The car was to run on hemp-ethanol.

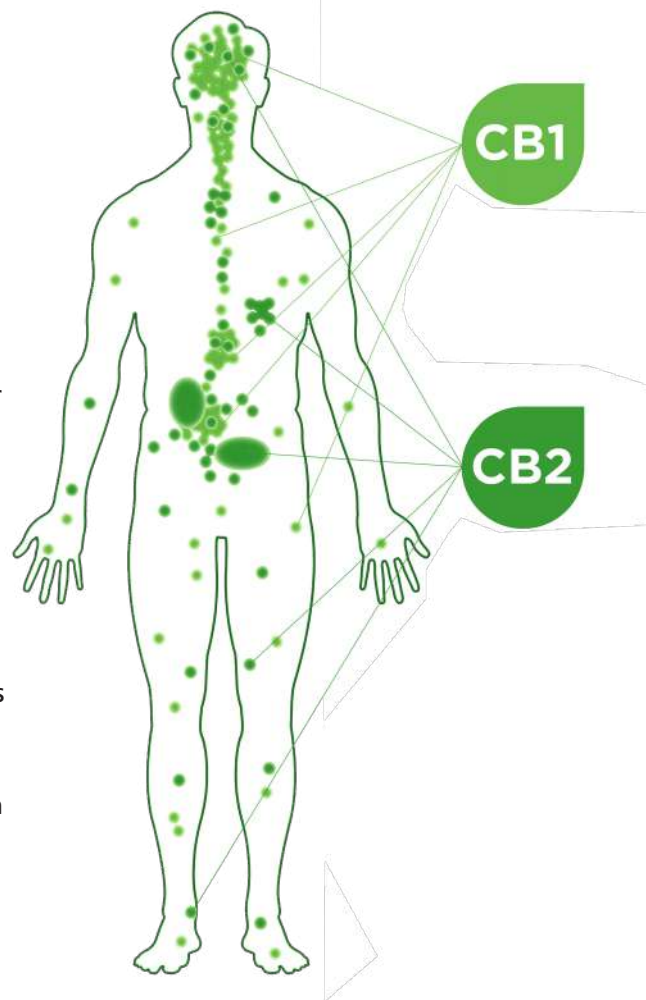
"The experimental model is pictured as a step toward materialization of Henry Ford's belief that some day he would 'grow automobiles from the soil.'"

—Popular Mechanics, December 1941

HOW CBD WORKS IN THE BODY

The endocannabinoid system (ECS) is a biological system composed of endocannabinoids (cannabinoids produced by the body) and the receptors they bind to, cannabinoid receptor type 1 (CB1) and cannabinoid receptor type 2 (CB2). All mammals possess an endocannabinoid system which regulates bodily functions such as sleep, appetite, immune system responses, hormone production and mood. In addition to being produced endogenously by the endocannabinoid system, cannabinoids have also been found in other botanical sources, including hops and varieties of Echinacea. However, cannabis contains the highest concentration of cannabinoids of any plant. At least 120 cannabinoids have been isolated from cannabis and characterized, with two of the most notable ones being cannabidiol (CBD) and tetrahydrocannabinol (THC).

When CBD is referred to as Full-Spectrum, or whole plant CBD, it means that the CBD product contains all the cannabinoids, terpenoids and other compounds found in the cannabis plant. A full spectrum product produces an effect on the endocannabinoid system that is much more robust than that of products which contain a smaller range of plant compounds. This is the so called "entourage effect" which refers to the synergy of pharmacological effects which occur through the interaction between cannabinoids and the other compounds found in cannabis, such as chlorophyll, waxes and especially terpenoids. These interactions make the product far more effective than products containing only CBD Isolate.



DOSING

Dosage can range according to body weight, tolerance, and condition. The recommendation is to start with a small dose and work your way up until you find a therapeutic level that works for you. The average approximate standard dose in milligrams is equal to body weight divided by 3. Too high a dose of CBD can aggravate the condition sought to be relieved by over stimulating the endocannabinoid system, and can render the application less effective. CBD can affect the action of certain liver enzymes. Always consult your doctor about potential medication interactions.



		Strength of Tincture (Concentration)						
		full dropper = top of graduation lines						
Size of Dose		100mg 10mg/ml (10 doses per bottle at 10mg per dose)	300mg 10mg/ml (30 doses per bottle at 10mg per dose)	600mg 20mg/ml (60 doses per bottle at 10mg per dose)	1200mg 40mg/ml (120 doses per bottle at 10mg per dose)	1800mg 60mg/ml (180 doses per bottle at 10mg per dose)	2400mg 40mg/ml (240 doses per bottle at 10mg per dose)	3600mg 60mg/ml (360 doses per bottle at 10mg per dose)
	10 mg	1 Dropper full	1 Dropper full	1/2 Dropper full	1/4 Dropper full	.16ml Dropper full	1/2 Dropper full	.16ml Dropper full
	15 mg	1.5 Droppers full	1.5 Droppers full	3/4 Dropper full	.37ml Dropper full	1/4 Dropper full	.19ml Dropper Full	1/4 Dropper full
	20 mg	2 Droppers full	2 Droppers full	1 Dropper full	1/2 Dropper full	.33ml Dropper full	1/2 Dropper full	.33ml Dropper full
	25 mg	2.5 Droppers full	2.5 Droppers full	1 Dropper full + .25ml line	.62ml Dropper full	.41ml Dropper full	.62ml Dropper full	.41ml Dropper full
	30 mg	3 Droppers full	3 Droppers full	1.5 Droppers full	3/4 Dropper full	1/2 Dropper full	3/4 Dropper full	1/2 Dropper full

HARVEST AND PROCESSING



Hemp is very efficient at accumulating heavy metals and toxins from the soil. Therefore, when creating a CBD product, it is very important that extensive soil testing, organic practices, and overall care are used to grow plants that are toxin free and safe for the consumer.

Drying and processing can also affect the quality of the plant. Forced hot air methods for drying plants destroy delicate plant compounds that are essential. Terpenoids are especially volatile and can be easily lost. Hang drying and curing are therefore the best options for preserving the quality of the product. Removing flower material from the stem is an essential step before storing hemp biomass. Machine processed biomass runs the risk of contamination.



ETHANOL EXTRACTION

The extraction method used to produce CBD products determines quality.

Food grade alcohol extraction allows for recovery of the widest range of cannabinoids and terpenoids and is considered the safest method to extract for human consumption.

Other extraction methods, such as CO₂, butane, or lipid extraction, cannot extract as wide a range of compounds as alcohol extraction and can be prone to contamination or can leave residual, potentially toxic chemicals.

Short path distillation is often a second step that removes heavier compounds such as waxes and lipids, which makes the base oil for products more palatable. The result is Distillate. Further processing of distillate CBD oil removes all compounds except for the CBD molecule. The result is CBD Isolate. CBD isolate is a great option for those that may be drug tested, as it contains no THC or other compounds. However, the lack of the other compounds also renders the CBD less bio-available and therefore less effective.



CRUDE, DISTILLATE, AND ISOLATE



Different types of extraction methods make different types of oils. Full-Spectrum Oil is referred to as crude oil and is dark in color. Crude is only produced by alcohol extraction and contains the largest amount of compounds that you can extract. This includes some of the heavier compounds such as chlorophyll, waxes, and lipids that give it the dark color. Crude oil can be further processed through distillation to remove these heavier compounds. The result is a much clearer oil known as "Broad Spectrum". This type of oil is often found in Vaporizer Cartridges because its viscosity is more conducive to heat and has better flavor.

Other extraction methods such as CO₂ or Butane produce a similar spectrum of oil as dis-

tilate and fall under the Broad Spectrum category as well. These products lack many of the beneficial compounds found in Full Spectrum products. The synergistic effect that compounds with the multitude of alkaloids in the cannabis plant lead to what is called the "Entourage Effect". Isolate CBD is the opposite of Full-Spectrum. With Isolate, all compounds except CBD are stripped away and a white powder is left. CBD Isolate contains only the molecule CBD itself. Although isolate products have the advantage of having no THC in them, products made with Isolate do not have the benefit of the entourage effect .

TESTING AND QUALITY ASSURANCE

It is incredibly important when looking into whether a CBD company produces a quality product to make sure it has up to date certified third-party testing available. All of our products at Vermont Pure CBD undergo high-level, third-party testing for heavy metals, pesticides, potency, residual solvents and mycotoxins before they are brought to market. This is to ensure the products meet regulatory demands for quality and safety. Every batch of our products undergoes multiple rounds of testing. What we test for varies slightly depending on what stage of the process the product is in. We conduct in-house testing with our own spectrometer frequently, to ensure the quality of our products. As our CBD hemp begins to flower later in the season, we test the hemp flower for potency to ensure that we are adhering to federal law and to determine the opportune time to harvest. After the biomass is processed, we conduct another potency test. In post-extraction, the raw oil undergoes further testing. At this stage it is especially important to test for residual solvents. Many solvents can be harmful for human consumption.

It is important to note that while the solvent we use (organic cane ethanol) is the same as what you find in alcoholic drinks and is safe for human consumption, we still test for residual solvents to ensure that the oil that makes it into our products is free from any residual ethanol. The crude oil out of the extractor is what goes into all our products.

At this stage we send out our products for third party testing for heavy metals, pesticides, potency, residual solvents and mycotoxins. This testing confirms that our products contain the correct amount of CBD, and that they are safe to consume. Organic soil, ethanol extraction, the finest ingredients and extensive testing limit the chance of exposure to a potentially toxic or ineffective product.



HOW TO READ COAS AND LAB REPORTS

COA or Certificate Of Analysis is a lab report on the chemical makeup of the CBD products including cannabinoid, terpene and contaminant profile. The first thing to look at when investigating a companies' COA is the date. An older date on a report signifies that the company does not do regular testing. Make sure that the company that has issued the COA is in good standing, and that the header displays the CBD company correctly.

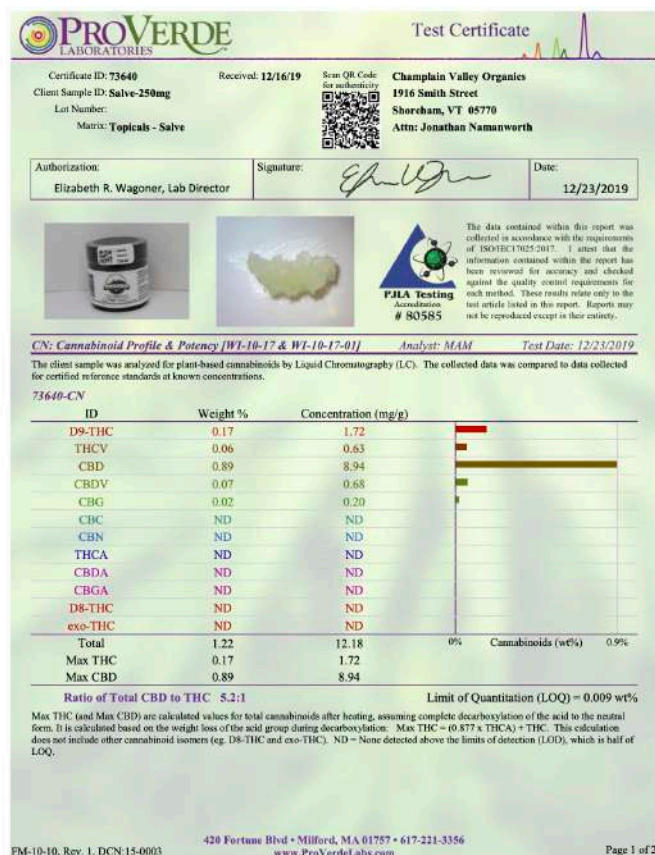
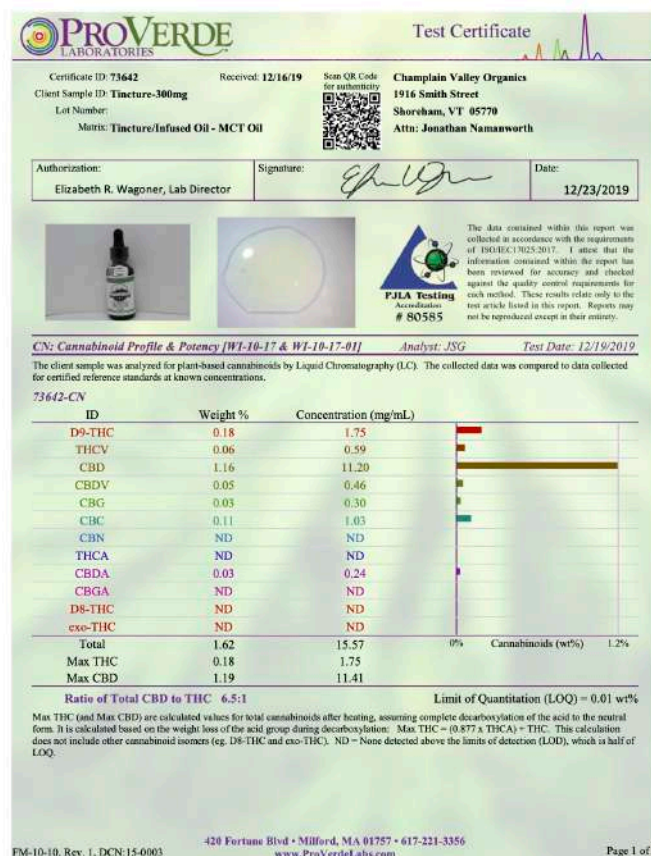
After examining the header, it is important to analyze the cannabinoid content portion of the COA. The results will display all of the relevant compounds in the products. They will be displayed in milligrams per gram (mg/g) and as a percentage of the product as a whole. Foremost, it is important that the THC content be below the legal threshold of 0.3%. This ensures that the company is compliant and that the product is not going to get you "high". Federal law requires that any CBD or cannabis derived product remain below the threshold of 0.3% Delta-9 THC of its total weight. To ensure that the product contains the correct amount of CBD, one must analyze the column containing mg/g amounts or do some simple math using the percentages column. If the product is Broad-Spectrum or Full Spectrum then it should contain other compounds as well, including terpenes. Terpene profiles are not always attached to COAS.

DETERMINING DOSE PER SERVING

In the case of tinctures, which are measured by graduations (ml) on a dropper, one must investigate the mg/g column. In the case of most fluids, a milligram in volume is equal to 1g in weight. This means we can safely assume that a 1mg dropper full of tincture is going to equal a gram. Conveniently then, it is safe to say that this column displays milligram amounts of compounds found in that one dropper full. Using the example here, we can see that the concentration of CBD in milligrams is 11.2 in one "dropper full" of this 300mg tincture. Now it is time to determine how many droppers are in a whole bottle. All products should display total volume or weight of the product. In this particular product, there is 30ml of volume in the bottle or 30 full droppers. Therefore to find the amount of CBD claimed to be in the bottle, simply divide the amount of CBD by 30.

300mg CBD/30dropper fulls = 10mg of CBD per dropper full

The test result confirms there is actually 11.2mg of CBD per dropper full. Working the other way, we can determine that there is actually 336mg in the whole bottle. What a deal!



DETERMINING CBD CONTENT BY WEIGHT

Although all products should be displayed having both a weight and a volume, many topical products do not. To determine the amount of CBD per serving or in the whole bottle using weight, one can use the percentage per weight column.

In this example, this 250mg CBD salve is in a 1oz bottle. If an ounce, or 28349.5 milligrams of product contains .89% CBD then it is a process of simple division to find if the displayed CBD amount is accurate.

28349.5/.0089 = 252.3 mg in the bottle

OTHER IMPORTANT TESTING

Tests analyzing for potentially harmful substances are much easier to decipher. Like anything you consume or apply to the human body, it is critical that a product does not contain any harmful elements.

Cannabis is especially proficient at accumulating compounds found naturally in the soil. For this reason, heavy metal testing is necessary. Limits for permissible levels are standard and are displayed in micro-grams per milligram, Pass or Fail is noted under the status heading.

Mycotoxins or Microbiological Contaminants are organisms with potentially harmful constituents. Molds, yeasts, fungus and bacteria can all be cause for alarm as some produce harmful compounds, testing is displayed as Colony Forming Unit per Gram (CFU/g) or the number of single organisms in a sample.

Residual solvents are compounds used predominantly in the extraction of biomass into CBD oil. Some solvents are more harmful than others. Acceptable standards for residual solvents depend on their toxicity and are shown in Parts Per Million (PPM).

Test Certificate

Certificate ID: **85172**
 Client Sample ID: **Tincture - 300mg**
 Lot Number:
 Matrix: **Tincture/Infused Oil - MCT Oil**

Received: **7/31/20**
 Scan QR Code for authenticity

Champlain Valley Organics
 1916 Smith Street
 Shoreham, VT 05770
 Attn: Jonathan Namasworth

Authorization: **Chris Hudalla, Chief Science Officer**
 Signature:
 Date: **8/4/2020**

The data contained within this report was collected in accordance with the requirements of ISO/IEC 17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

V/C: Analysis of Volatile Organic Compounds [WI-16-28] Analyst: **CA** Test Date: **8/3/2020**

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

Compound	CAS	Amount ¹	Limit ²	RL	Status
Propane	74-98-6	ND	1,000 ppm	100	PASS
Isobutane	75-28-5	ND	1,000 ppm	100	PASS
Butane	106-97-8	ND	1,000 ppm	100	PASS
Methanol	67-56-1	ND	3,000 ppm	100	PASS
Pentane	109-66-0	ND	5,000 ppm	100	PASS
Ethanol	64-17-5	ND	5,000 ppm	100	PASS
Acetone	67-64-1	ND	5,000 ppm	100	PASS
Isopropanol	67-63-0	ND	5,000 ppm	100	PASS
Acetonitrile	75-05-8	ND	410 ppm	100	PASS
Hexane	110-54-3	ND	290 ppm	100	PASS
Heptane	142-82-5	ND	5,000 ppm	100	PASS

1) ND = Not detected at a level greater than the Reporting Limit (RL).
 2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health for cannabis concentration and extracts on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.
 (*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

END OF REPORT

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Test Certificate

Certificate ID: **82736**
 Client Sample ID: **522-143A-20**
 Lot Number:
 Matrix: **Concentrates/Extracts - Alcohol**

Received: **6/3/20**
 Scan QR Code for authenticity

Champlain Valley Organics
 1916 Smith Street
 Shoreham, VT 05770
 Attn: Jonathan Namasworth

Authorization: **Rebecca Stevens, Chemist II**
 Signature:
 Date: **6/17/2020**

The data contained within this report was collected in accordance with the requirements of ISO/IEC 17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

HM: Heavy Metal Analysis [WI-16-13] Analyst: **CJS** Test Date: **6/10/2020**

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

Symbol	Metal	Conc. ¹ (µg/kg)	RL	Use Limits ² (µg/kg)	Status
As	Arsenic	ND	50	200 1500	PASS
Cd	Cadmium	ND	50	200 500	PASS
Hg	Mercury	ND	50	100 1500	PASS
Pb	Lead	82	50	500 1000	PASS

1) ND = None detected to Lowest Limits of Detection (LLD)
 2) MA Dept. of Public Health: Protocol for MMJ and MPPS, Exhibit 4(a) for all products.
 3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 170 lb person.

MB1: Microbiological Contaminants [WI-16-09] Analyst: **AEQ** Test Date: **6/3/2020**

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	<100	CFU/g	10,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	<100	CFU/g	100 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	<100	CFU/g	100 CFU/g	PASS
YM	Total Yeast & Mold	<100	CFU/g	1,000 CFU/g	PASS

Recommended limits established by the American Herbal Pharmacopoeia (AHP) monograph for Cannabis Infusions (2013), for consumable botanical products, including processed and unprocessed cannabis materials, and solvent-based extracts. Note: All recorded Microbiological tests are within the established limits.

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Test Certificate

Certificate ID: **82736**
 Client Sample ID: **522-143A-20 (Concentrates/Extracts - Alcohol)**
 Lot Number:
 Matrix: **Concentrates/Extracts - Alcohol**

Received: **6/3/20**
 Scan QR Code for authenticity

Champlain Valley Organics
 1916 Smith Street
 Shoreham, VT 05770
 Attn: Jonathan Namasworth

Authorization: **Rebecca Stevens, Chemist II**
 Signature:
 Date: **6/17/2020**

The data contained within this report was collected in accordance with the requirements of ISO/IEC 17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

MY: Mycotoxin Testing [WI-16-05] Analyst: **SRL** Test Date: **6/3/2020**

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	6/5/2020	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	6/5/2020	< MDL	3 ppb	< 20 ppb	PASS

PST: Pesticide Analysis [WI-16-11] Analyst: **CJR** Test Date: **6/8/2020**

The client sample was analyzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	300	PASS
Spinosad	168316-95-8	ND	ppb	0.10	3000	PASS
Pyrethrin	8003-34-7	ND	ppb	0.10	1000	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	30000	PASS
Spiromesifen	203313-25-1	ND	ppb	0.10	13000	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	12000	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	8000	PASS
Permethrin	76738-62-0	ND	ppb	0.10	10	PASS
Mycolobutanol	88671-89-0	ND	ppb	0.10	9000	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	3000	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Etoazole	153233-91-1	ND	ppb	0.10	1500	PASS
Dichlorvos	62-73-7	ND	ppb	3.00	10	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	1000	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	500	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	5000	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	40000	PASS

* Testing limits for ingestion established by the State of California: CCR, Title 16, Division 42, Chapter 5, Section 5333. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (*) indicate analytes for which no recovery was observed for a pre-packed matrix sample.

END OF REPORT

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The Vermont Pure CBD team constantly strives to provide the highest quality product for our customers. From the seed we sow, to the formulation and production of every product – we take care at every stage. Not all CBD products are created equal. Know the difference! And, feel the difference with Vermont Pure CBD! To understand what we do differently follow us on Facebook, Instagram, check out our blog, or read the many wonderful testimonials we have received on Trustpilot.com. Thank you for choosing Vermont Pure CBD. We look forward to hearing from you.



“As always fast & accurate orders & shipping Great communication when orders are heading to your mailbox. And most importantly a superb product!”



by Jo Caggianelli

Rated 4.9 / 5 | 444 reviews



“Nothing but the best! I've been a regular client for a while now and the consistency and quality are top notch.”



by PT always wins

Rated 4.9 / 5 | 444 reviews



“I have been meaning to let you know this is the best cbd I have done in 7 years. Bravo!!!”



by Suzanne Berg

Rated 4.9 / 5 | 444 reviews



STOREFRONT
Vermont Pure Essentials
237 Main Street
Vergennes, VT, 05491
802-870-7348



Vermont Pure CBD
1916 Smith Street
Shoreham, VT, 05770
info@vermontpurecbd.com
802-897-5663

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