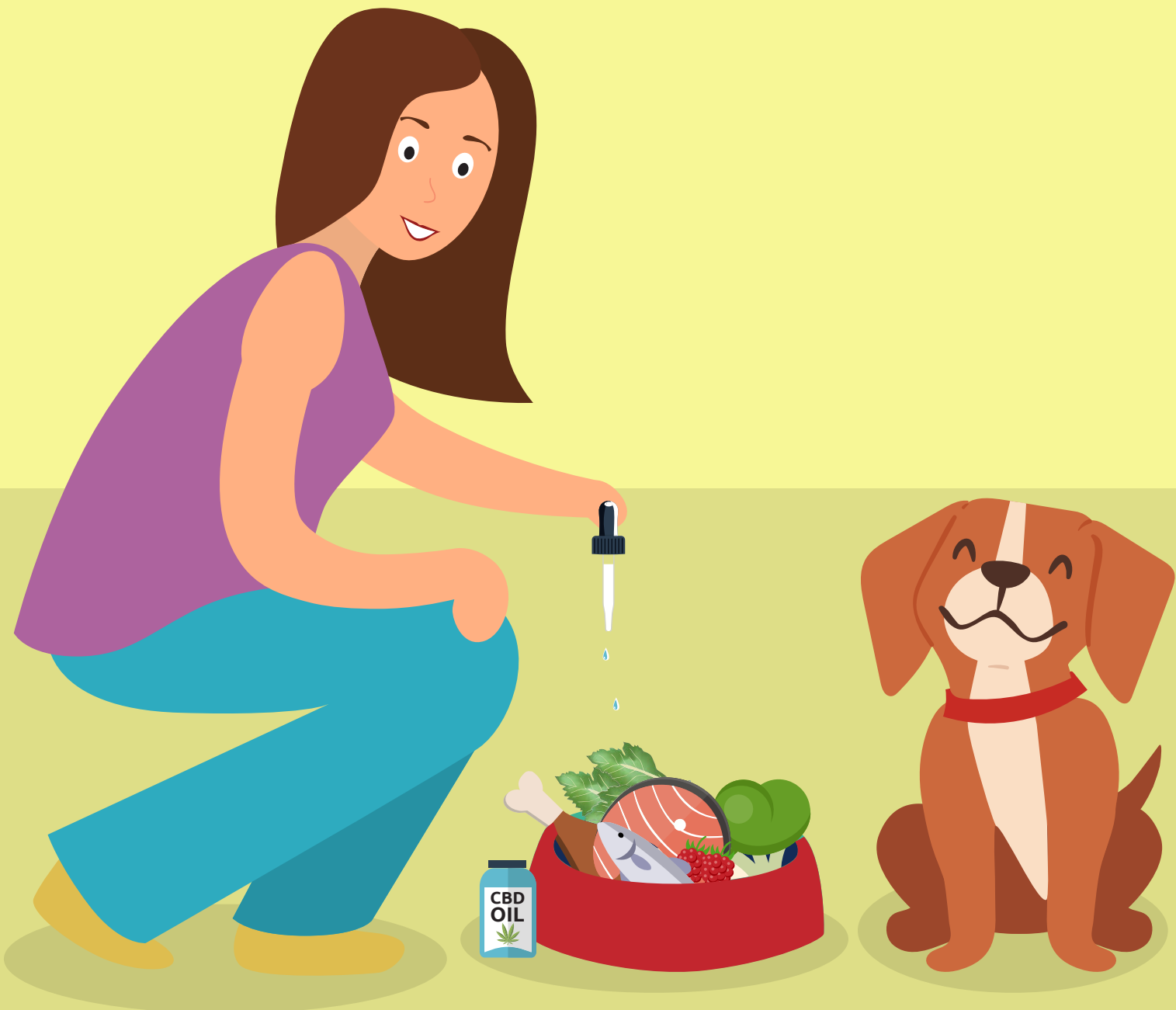


CBD OIL BUYER'S GUIDE





NON GMO



ORGANIC



HIGH QUALITY
INGREDIENTS



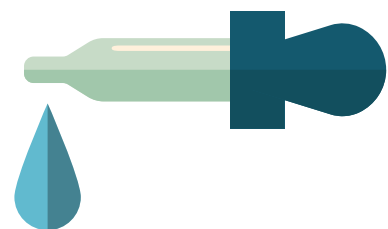
SAFE TO USE

CBD (cannabidiol) oil has become incredibly popular for pets – and with good reason. Dog owners are finding it helps their dogs with a number of different health issues. It's not only effective, but also safe.

CBD EFFICACY

A survey of 631 pet owners reported in 2016 by the [American Holistic Veterinary Medical Association \(AHVMA\)](#) listed some of the most common successful uses of CBD oil for dogs:

- **Pain relief**
- **Sleep aid**
- **Anxiety relief**
- **Nervous system support**
- **Reduced inflammation**
- **Reduced seizures**
- **Vomiting and nausea**
- **Muscle spasms**
- **Digestive tract issues**
- **Thunderstorm or firework phobia**
- **Cancer**
- **Skin conditions**



PERCEIVED IMPACT OF CBD PRODUCT ON SYMPTOM REDUCTION IN DOG(S)

Table 3: Perceived Impact of Product on Symptom Reduction in Dog(s).

The percentage and number of respondents who answered this question by indicating the type of response observed in their dog after using a hemp product.

Perceived Product Impact by Survey Respondents	Did not help at all	Helped very little	Helped moderate amount	Helped a great deal	NA or don't know	n = number of respondents selecting impact statement
Provided pain relief	1.35% 4	2.02% 6	25.93% 77	38.38% 114	33.00% 98	299
Aided with sleep	2.47% 7	3.89% 11	18.73% 53	31.80% 90	43.11% 122	283
Helped relieve anxiety	3.55% 10	6.38% 18	21.28% 60	28.01% 79	40.78% 115	282
Provided nervous system support	1.41% 4	1.77% 5	14.84% 42	26.15% 74	55.83% 158	283
Reduced inflammation	1.85% 5	1.85% 5	17.34% 47	24.72% 67	54.24% 147	271
Reduced seizures or convulsions	1.44% 4	1.08% 3	10.11% 28	19.13% 53	68.59% 190	278
Reduced vomiting and nausea	2.59% 7	1.48% 4	4.81% 13	14.07% 38	77.78% 210	272
Helped suppress muscle spasms	2.27% 6	2.27% 6	4.92% 13	11.74% 31	79.17% 209	265
Helped with digestive tract problems	2.65% 7	4.55% 12	5.68% 15	11.74% 31	75.38% 199	264
Helped with thunderstorm or fireworks phobia	3.00% 8	4.12% 11	5.99% 16	7.12% 19	80.52% 215	269
Inhibited cell growth in tumors/cancer cells	2.60% 7	1.12% 3	4.46% 12	5.58% 15	86.62% 233	270
Helped with skin conditions	3.77% 10	4.15% 11	7.17% 19	5.66% 15	79.25% 210	265

Source: [American Holistic Veterinary Medical Association \(AHVMA\)](#)

CBD SAFETY

There were also very few side effects reported. The most frequent “significant” side effects among dogs given CBD were listed as:

Sedation 19%

Overactive appetite 5%

Lack of energy 4%

Panic reactions 2.7%

Dry mouth/excessive drinking 2.3%

Nausea 1.7%

Vomiting 1.7%

Increased seizures 0.69%

Impaired mental functioning 0.68%



As you can see, by far the most likely side effect is that your dog will get sleepy after you give him CBD oil.

So, if your dog suffers from seizures or anxiety, or has arthritis pain or cancer, and you'd like to give CBD oil a try ... where do you begin?

CHOOSING A CBD PRODUCT

One of the problems with the popularity of CBD oil is that sellers are jumping on the bandwagon and there are CBD oil products popping up all over the place ... and some are much higher quality than others. And of course they all claim they're the best! So how do you know which one to buy?

You do need to do your research, and in some cases you may need to call the supplier to ask questions ... so here are a few things to look for.

HEMP CBD

For pets you should make sure you buy CBD made from organic industrial hemp, not **marijuana**. This is because you don't want your dog to get high. Both plants are from the Cannabis family, but hemp CBD is very low in THC (tetrahydrocannabinol), so it is non-psychoactive. Legally in the US, hemp CBD must contain a maximum of 0.3% THC, whereas the THC in marijuana is usually over 5% and some strains contain up to 35%.



It's also a good idea to be very careful if you buy from a company based in one of the states where recreational use of marijuana is legal. It's too easy to get a product that has THC in it when it comes from one of these states.

Don't take the seller's word for it ... ask to see a Certificate of Analysis for their product showing that the THC is below 0.3% (read more about the Certificate of Analysis under [Lab Testing](#) below).

GROWING STANDARDS

Find out how and where your supplier's hemp is grown. Look for an organic product. The cultivation environment (climate, soil and water) is very important because cannabis is a hyper-accumulator, meaning it absorbs contaminants from the ground it grows in. Heavy metal toxicity is a special concern in a medicinal product like CBD oil so your supplier should be able to provide test results showing that it's free of these contaminants (see [Lab Testing](#) below).

The most reliable source of hemp is industrial hemp that's certified in Germany. The regulatory standards there are very stringent and they are strictly enforced; the

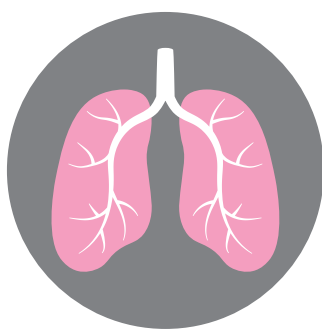
European Union's organic standards are also stricter than the US's and thoroughly audited.

Look for information on the supplier's website about their sourcing. If it isn't provided or their standards aren't clear ... or if you have questions they won't answer, don't buy from them.

EXTRACTION METHOD

The best extraction method is supercritical (or subcritical) CO₂ extraction. This system uses carbon dioxide under high pressure and low temperatures to assure the purity of the extracted medicinal oil. Subcritical extraction is done at a lower temperature (under 88F) than supercritical, while supercritical extraction is done over 88F and 1083 psi. Yields are a little lower with the subcritical vs the supercritical method but both processes ensure a quality CBD product.

It's the most expensive extraction method, producing a non-toxic, pure, natural, non-flammable product. The extract has a cleaner taste and mycotoxins can't survive the extraction process.



Avoid any products made with solvents like propane, butane, pentane or hexane - toxic flammable hydrocarbon gases found in petroleum. Inhalation can cause cardiac and respiratory problems.

Some CBD products are extracted in pharmaceutical grade ethanol (a grain alcohol). This process is Generally Regarded As Safe (GRAS) by the [FDA \(US Food and Drug Administration\)](#), but can destroy the plant's waxes, leading to a less potent oil.

ABSORBABILITY

For maximum absorbability, look for a CBD product that's infused with coconut oil. When CBD is infused with coconut oil, it's much better absorbed by your dog. Coconut oil is best. Some companies use olive oil, which is also acceptable, but the product is less bioavailable when made with olive oil rather than coconut oil.

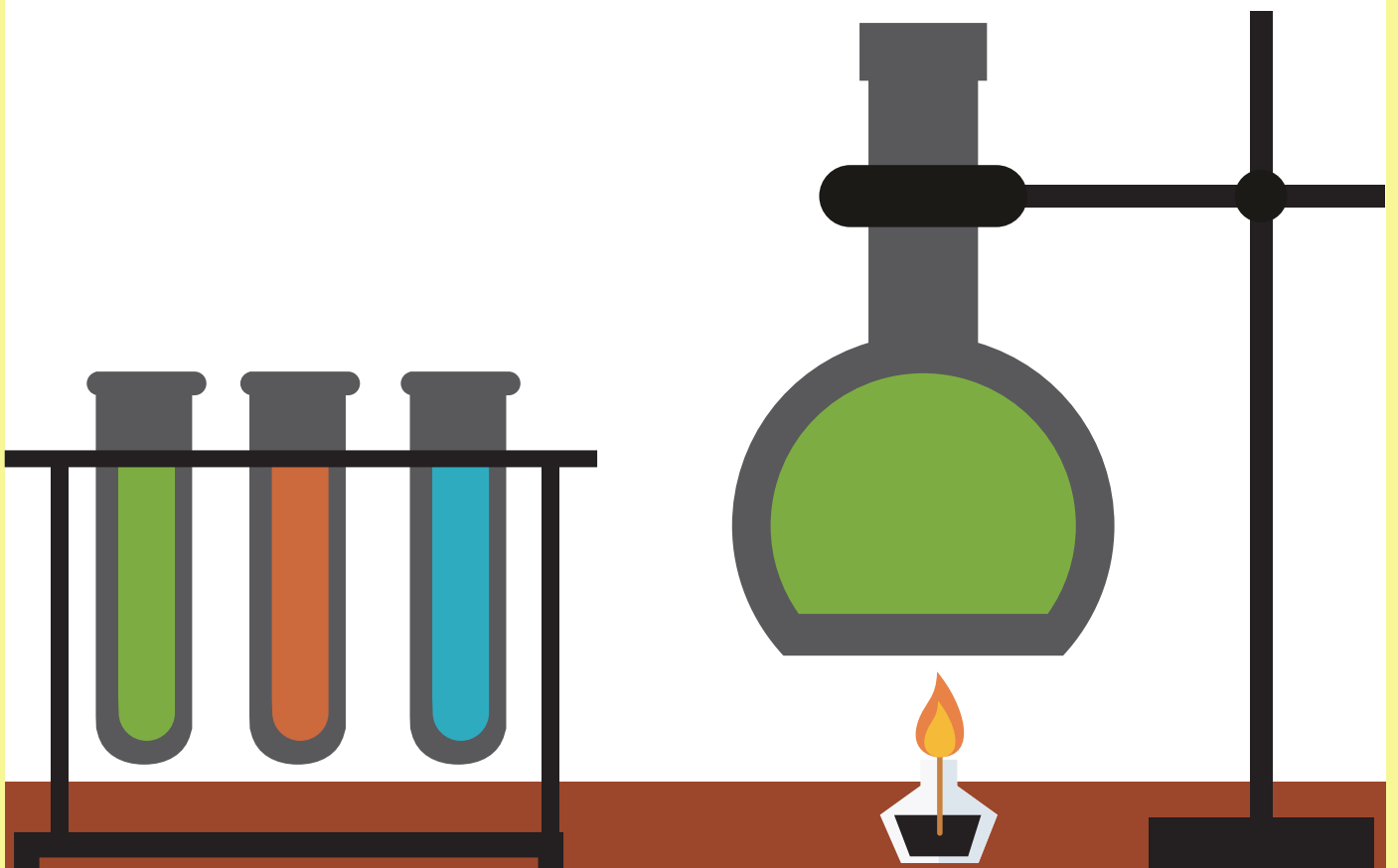
What Else Is In Your CBD Oil?

There are several things to look for when you're assessing the purity of the product you're considering. As always, ask to see your supplier's [Certificate of Analysis](#) so you know their label claims have been verified.

- 1 Buy an organic product. Hemp can pick up contaminants from the soil it's grown in.
- 2 Buy a CBD oil, not CBD cookies or treats, which are likely not strong enough to be effective.
- 3 You'll see some products described as "gold grade." This refers to quality and clarity. Lower grade oils are darker and contain more chlorophyll and plant matter, compared to a higher quality extraction that comes out gold. Buy gold if you can!
- 4 Make sure there are no chemical additives or preservatives in the product you buy.
- 5 Beware of products that add ingredients like essential oils (EOs) to their CBD oil. Even though "natural," EOs can affect animals powerfully so avoid them unless you want

a certain EO in your CBD for a specific purpose ... for example, some CBD products might include frankincense EO for tumor reduction in a cancer patient. If there are EOs in the product you're buying, make sure you know what their medicinal purpose is, and also question the supplier about the quality and purity of the EO.

- 6 There have also been companies selling "pseudo hemp." The FDA (Food and Drug Administration) has tested some products and fined companies whose products didn't contain the CBD levels they claimed. You can see the FDA testing results on [this page](#), where you can also view the warning letters the FDA has sent to suppliers. Most of the warning letters are because of the medicinal claims the suppliers make on their websites, but on the FDA's 2016 list of warning letters below, you can also see where the test results differ from the manufacturer's claims about CBD content.



FDA WARNING LETTERS AND TEST RESULTS FOR CANNABIDIOL-RELATED PRODUCTS

Firm	Product	State	Purchase Website	Product Size CBD Label Claim	Lab Results (mg/g)			Lab Results %(w/w)		
					CBD	Δ9- THC	Other Cannabinoids	CBD	Δ9- THC	Other Cannabinoids
Canna Companion, LLC	Canna Companion Capsule Size: 4	WA	cannaforpets.com	4 capsules N/A CBD	1	1	CBDA: 9 THCA: 3	0.1%	0.1%	CBDA: 0.9% THCA: 0.3%
Canna-Pet, LLC	CBD Wedges - Canna-Biscuits for Dogs	WA	canna-pet.com	2oz N/A CBD	None detected above 1 mg/g			None detected above 0.1% (w/w)		
Canna-Pet, LLC	Canna-Pet for Cats	WA	canna-pet.com	14 capsules N/A CBD	5	—	—	0.5%	—	—
Canna-Pet, LLC	Canna-Pet MaxCBD Capsules for Dogs	WA	canna-pet.com	10 capsules N/A CBD	26	1	CBC: 1	2.6%	0.1%	CBC: 0.1%
CBD Life Holdings LLC dba Ultra CBD	UltraCBD*	AZ	ultracbd.com	1oz 200mg Cannabinoids	None detected above 1 mg/g			None detected above 0.1% (w/w)		
CBD Life Holdings LLC dba Ultra CBD	UltraCBD*	AZ	ultracbd.com	1oz 200mg Cannabinoids	0.2	ID Only	CBDA: 0.2	0.02%	ID only	CBDA: 0.02%
Hemp Oil Care	Hemp Pure Vape E-Drops: Peached	CA	hempoilcare.com	10ml 50mg CBD	negative for cannabinoids			negative for cannabinoids		
Hemp Oil Care	Cibaderm Hemp Salve	CA	hempoilcare.com	1.3oz N/A CBD	—	—	CBDA: 2	—	—	CBDA: 0.2%
Hemp Oil Care	Cibdex Hemp CBD Complex Drops - Peppermint	CA	hempoilcare.com	1 fl oz. 1mg CBD/serving	3	—	—	0.3%	—	—
Hemp Oil Care	Cibdex Hemp CBD Complex Drops - Unflavored	CA	hempoilcare.com	1 fl oz. 1mg CBD/serving	3	—	—	0.3%	—	—
Hemp Oil Care	Cibdex Hemp CBD Complex Drops - Vanilla	CA	hempoilcare.com	1 fl oz. 1mg CBD/serving	3	—	—	0.3%	—	—
Hemp Oil Care	Hemp Honey 21% Cannabidiol Oil	CA	hempoilcare.com	1g 21% CBD	negative for cannabinoids			negative for cannabinoids		
Hemp Oil Care	Hemp Honey CBD Vape Oil - Blueberries & Cream	CA	hempoilcare.com	10ml 50mg of 21% CBD	negative for cannabinoids			negative for cannabinoids		
Natural Organic Solutions	CBD Oil Extract Capsules	WA	purecbd.net	10 capsules 500mg CBD	negative for cannabinoids			negative for cannabinoids		

Source: [FDA \(US Food and Drug Administration\)](#)

TERPENES

Should you look for a product with terpenes? Terpenes (like limonene, alpha pinene, beta pinene) are some of the natural medicinal constituents in hemp, and all products will contain terpenes. You may read about the “entourage effect” of terpenes along with cannabinoids in your CBD oil, which is said to increase the medicinal actions of the product.

If your oil was produced using the CO2 method, the terpenes get pulverized, making them difficult to detect in testing, and they won't show up on the Certificate of Analysis ... but they are still present and contribute to the CBD oil's medicinal effects.

CBD produced using solvent-based methods (which we don't recommend, as described above) will preserve the terpenes so that they show on the Certificate Of Analysis.

LAB TESTING

We've mentioned the Certificate of Analysis several times already ... that's because it's important. Don't buy a CBD oil product if the supplier can't (or won't) show you a Certificate of Analysis of their product by a third party independent laboratory. The certificate should show:

- **THC potency (must be less than 0.30% for CBD Hemp Oil)**
- **CBD per ml and per bottle**
- **Free of contaminants like pesticides, heavy metals**
- **Free of residual solvents**
- **Free of bacteria (like E.coli), yeast and mold**

CERTIFICATE OF ANALYSIS FOR CBD OIL



Tomorrow's standard
for medical testing

Sample Name: Source CBD

Sample ID: 0329AQ01

Sample Type: Edible

Unit Volume: 2ml

Date Tested: 3/30/17

Certificate of Analysis

Potency Test Results

	mg/ml	mg/unit
Total Cannabinoids	8.51	17.03
Total THC	0.08	0.16
THC	0.08	0.16
THCa	ND	ND
THCV	ND	ND
Total CBD	7.59	15.19
CBD	7.59	15.18
CBDa	ND	ND
CBN	0.05	0.09
CBG	ND	ND
CBGa	ND	ND
CBC	0.8	1.59

Terpene Test Results

			mg/g
Terpinolene	N/A	Total Terpenes	N/A
Linalool	N/A	alpha-Pinene	N/A
(-)-Isopulegol	N/A	Camphene	N/A
Geraniol	N/A	beta-Myrcene	N/A
beta-Caryophyllene	N/A	(-)-beta-Pinene	N/A
alpha-Humulene	N/A	delta-3-Carene	N/A
(-)-Guaiol	N/A	alpha-Terpinene	N/A
Nerolidol 1	N/A	Ocimene	N/A
Nerolidol 2	N/A	d-Limonene	N/A
(-)-alpha-Bisabolol	N/A	p-cymene	N/A
		gamma-Terpinene	N/A

Pesticide Test Results

Carbamates	N/A
Heavy Metals	N/A
Organophosphates	N/A

Residual Solvent Test Results

			ppm
n-Pentane	N/A	2-Butanol	N/A
Ethanol	N/A	Isopropyl acetate	N/A
Ether	N/A	2-Methyl-1-propanol	N/A
Ethyl formate	N/A	n-Butane	N/A
Acetone	N/A	n-Heptane	N/A
2-Propanol	N/A	1-Butanol	N/A
Methyl acetate	N/A	3-Methyl-1-butanol	N/A
tert-Butyl methyl ether	N/A	4-Methyl-2-pentanone	N/A
1-Propanol	N/A	Isobutyl acetate	N/A
2-Butanone	N/A	1-Pentanol	N/A
Ethyl Acetate	N/A	Butyl acetate	N/A
tert-Butyl methyl ether	N/A		

Microbiological Test Results

Aerobic Count	N/A
Coliforms	N/A
E Coli Count	N/A
Enterobacteria	N/A
Yeast and Mold	N/A

Sample Certification



Scan to verify at cblabs.us

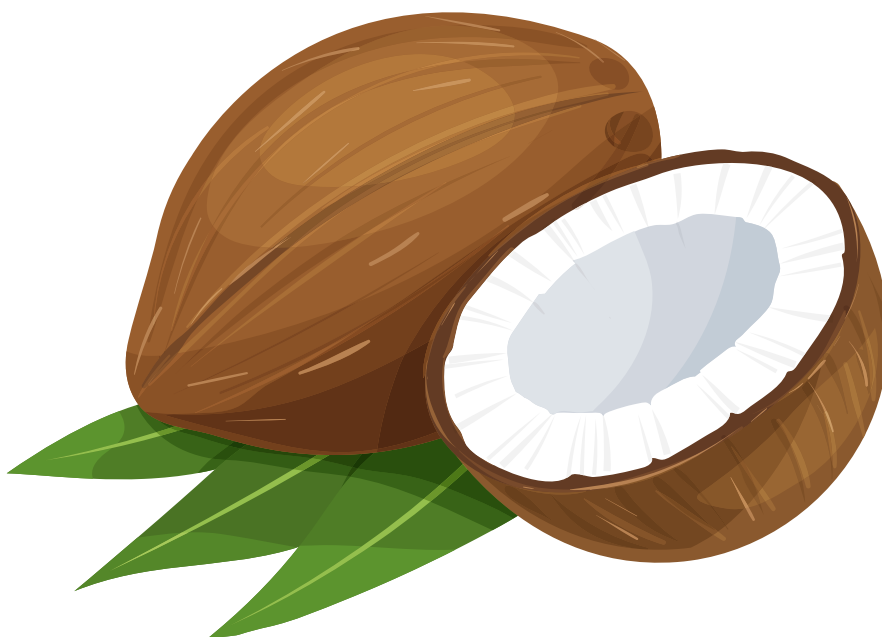
CBD POTENCY

When it comes to the potency of your oil, the numbers get quite complicated, and the labeling varies.

Many companies will show not just the amount of CBD per serving, but also the amount of CBD per oz or ml (or in the dropper – most droppers dispense 1 ml), and the total amount of CBD in the bottle. It can be quite hard to compare products because they may state the CBD amount differently.

For example, one company has a 200 mg CBD Oil. This is shown on the label as Herb Weight by Volume 200 mg. This means the bottle contains 200 mg of CBD. The label also shows that the 1 ml dropper contains 6.6 mg.

This company also states that the product has a Herb Strength Ratio of 1:60. That's because the CBD is infused with coconut oil, and 1:60 is the ratio of CBD to coconut oil.



CBD POTENCY CONTINUED

Another well-known company sells a concentrated liquid with no information on the label ... but you can find details on their website. The liquid doesn't contain any alcohol or carrier oil and is described as 100% organic, CBD-rich whole-plant hemp oil ... but they don't tell you how many milligrams (mg) of CBD oil are in a dose or in a bottle.

So you can see it's very hard to compare these two products without calling the second company to find out the actual amount of CBD in mg contained in the bottle.

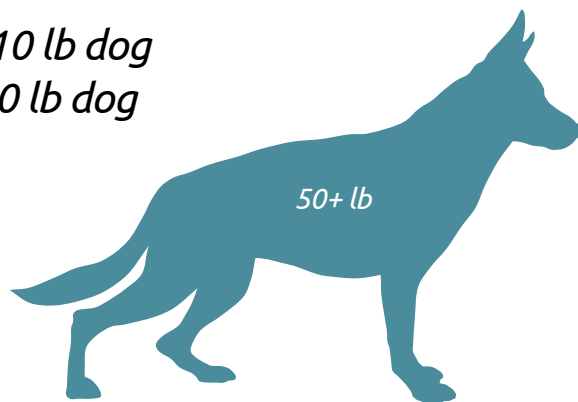
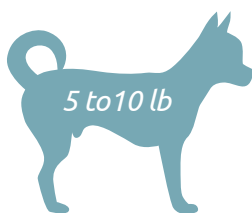
You can also ask to see the Certificate of Analysis which has Potency Test Results showing the total CBD in mg per ml, as well as mg per unit (bottle).

DOSING

Follow the manufacturer's dosing instructions for the size of your dog. It's a good idea to start with a lower potency and lower dose to see how your dog responds. You may need to increase the dose for your dog's specific needs, or buy a higher potency product next time.

As a general guideline, give 0.2 mg of CBD per pound of your dog's body weight per day, directly in the mouth or mixed with food. This translates to:

1 to 2 mg of CBD for a 5 to 10 lb dog
Up to 10 mg per day for a 50 lb dog



NOTE: This guideline refers to the actual amount of CBD, so you need to know how much CBD is in the dropper or bottle of product, as described in [CBD Potency](#) above.

PRICE

In order to compare the price of different products, you'll first need to know how much actual CBD is in each bottle. Once you know that, you can divide the amount of CBD in the bottle by the price and then you'll have a price per mg of CBD to compare.



Don't skimp on price if you want a high quality, safe product. Extracting CBD from industrial hemp requires a lot of plant material as well as careful monitoring of the growing environment, and it's not cheap! If the product you're considering is

priced significantly lower than the competition, there's probably a reason for that ... perhaps inferior hemp quality, a cheaper extraction method (like solvents that can be toxic), lower cost ingredients added to the product, or less CBD per serving or per bottle. You don't have to buy the most expensive product to assure a good CBD oil, but make sure you're buying a brand that's more or less in the range of similar quality product.

THE SUPPLIER'S ETHICS

Finally, after your research, are you comfortable that your supplier is ethical and honest? Here are some questions to ask yourself before you go ahead and buy the product:



- Do they fully disclose all the details of how and where their product is grown and manufactured?
- Are there any misleading statements on their website or packaging?
- Did they answer your questions satisfactorily?
- Did they provide a Certificate of Analysis from an independent third party lab?
- Does the company work on education and awareness?
- Do they have case studies or testimonials with examples of how their product has helped other pets?

CBD oil can be a highly effective and safe medicine for your dog if you get a good product. It's worth spending some time doing your homework before you buy!