

## HempFlax FAQ

### QUESTIONS ABOUT HEMP CULTIVATION

#### HOW DOES HEMP DIFFER FROM MARIJUANA?

Hemp and cannabis are both from the same family, *Cannabis sativa* L. but differ in their chemical composition or chemovar. There are three distinct varieties; these being, *Cannabis sativa*, *Cannabis indica* and *Cannabis ruderalis*. The drug cannabis has been bred during the last decades for its THC production, while the cannabis fibre or hemp has been developed for its agricultural attributes: production of clothes, food, insulation, ropes, animal litter and much more. Even though industrial hemp contains a low concentration of  $\Delta^9$ -THC, it contains high traces of CBD which can both balance the psychoactive effect of THC and provide some nutritional value.

#### WHAT IS CBD? HOW DOES IT DIFFER FROM THC?

CBD or Cannabidiol is a non-psychoactive phytocannabinoid found in almost all the varieties of cannabis, and is predominant in hemp. CBD has a homeostasis (balancing) effect on THC because it blocks the endocannabinoid system's receptors, while also suppressing the enzymes that break down THC. CBD can be considered a dietary supplement/nutraceutical.

#### CAN YOU GROW HEMP IN EUROPE?

Hemp is permitted to be cultivated in the EU, but it must be approved by the authorities and fall consistently below 0.2% of  $\Delta^9$ -THC in any given part of the plant.

#### WHAT KIND OF HEMP IS USED FOR THE PRODUCTION?

We follow the list of breeds that are approved for cultivation in the EU. For research and development purposes, we also breed our own hemp, mostly in the Netherlands, for CBD production along with regular varieties of hemp (such as fedora or ferimon). None of these strains contain, in accordance with the EU legislation on the cultivation of industrial hemp, more than 0.2% of THC. Moreover, HempFlax, a subsidiary of the group, has developed a specific way of harvesting the stalks separately from the upper-third with the flowers, thus cultivating more potent extracts which can be sold at an industrial price.

## CBD-RELATED QUESTIONS

### WHAT IS CBD?

CBD or cannabidiol is predominant in hemp and a non-psychoactive phytocannabinoid, found in almost all varieties of cannabis. CBD has a homeostasis (equilibrium) effect on THC, because it blocks the endocannabinoid system's receptors while also suppressing the enzymes that break down THC.

### WHAT IS THE DIFFERENCE BETWEEN THC OIL (RICK SIMPSON'S OIL) AND CBD OIL?

The biggest difference between these two oils is the extraction process. Rick Simpson's oil is mostly based on drug strains that contain high levels of THC along with low-to-high levels of CBD and extracted with naphtha or ethanol which can be dangerous. In contrast, our CBD oil is made from hemp leaves extracted with CO2 which contains a trace amount of THC and a higher amount of CBD. Our CBD oil also abides by Dutch law on THC because it contains less than 0.05% of THC, making it nearly impossible for consumers to get 'high' from it.

### ARE CBD OIL AND HEMP OIL THE SAME?

No. CBD oil is made from an extract of either cannabis or hemp and mixed with other oils afterwards. Hemp oil is made from hemp seeds which contain practically zero traces of cannabinoids. Our CBD oils are always a mix of CBD concentrate and hemp oil and can be further mixed with other oils such as coconut oil.

### HOW MUCH CBD SHOULD I TAKE?

As a global approach, we recommend "starting low, going slow" to find out your specific daily dosage, as each person differs. Furthermore, we advise all customers to expand their knowledge according to his/her personal interest on a search engine such as Google Scholar.

To guide you, our researchers have found a useful table at [how-much-cbd-should-i-take.com](http://how-much-cbd-should-i-take.com) which created the following dosage table based on weight and the severity of the condition:

Condition	Patient's Weight 39 - 68 kg	Patient's Weight 69 - 108 kg	Patient's Weight 109 kg +
Mild	12 mg	18 mg	22.5 mg
Medium	15 mg	22.5 mg	30 mg
Severe	18 mg	27 mg	45 mg

### CAN CBD INTERACT WITH OTHER MEDICATIONS?

Yes. CBD can interact with the cytochrome P450 enzymes, which are responsible for metabolizing a number of drug medicaments, for example, in the treatment of cancer or arrhythmia. Such inhibition can also happen from eating grapefruit, which causes increased cytotoxicity of the given pill in the body. In some cases, it may be advisable for a physician to monitor a patient's blood levels and regulate other medications while taking CBD.

## **CBD-RELATED QUESTIONS<sup>(CONTINUED)</sup>**

### **WHY SOURCING CBD FROM HEMP INSTEAD OF CANNABIS?**

One of the advantages of CBD from hemp is the required low level of THC, which makes it safe to take without the psychoactive effects of THC. This is done in accordance with European Law, as high levels of THC are forbidden. Through natural selection and breeding, our company is able to develop new varieties of CBD-rich hemp every year. Together with special agricultural practices, the increased CBD content in the plant material will yield better end products.

### **HOW DO YOU ASSESS THE QUALITY OF YOUR CBD?**

Our CBD is extracted from plants that we have grown, which allows our company to better monitor the quality throughout all phases of production. Our company believes in the whole blend of hemp extract, in accordance with the "entourage effect" first described by Pr. Mechoulam in 2001. We also believe that nature retains a lot more than what we are respectfully able to gather, so we put extra effort into enhancing each step of the transformation in order to provide our customers with the most natural product possible. We perform in-field hemp content analysis, laboratory Gas Chromatography (GC) and High Pressure Liquid Chromatography (HPLC) analysis, along with third party tests by accredited labs for counter analysis via HPLC.

### **WHAT IS DECARBOXYLATION?**

The naturally occurring CBD is always found in an inactive form in the plant under the name of cannabidiolic acid. This acid can then be heated to transform CBD-A into the active component CBD. During this decarboxylation, the carboxylic acid function is gently removed from the molecule. We strive for chemical optimization of the process, through precise engineering of the steps and unwavering research in the field, in order to deliver a stable, high-potency product.

### **CAN I BE TESTED POSITIVE FOR THC IF I CONSUME YOUR CBD OIL?**

In a nutshell, it is not possible to be THC-positive when consuming standard doses of CBD oil. We recommend between 30 to 60mg of CBD per day. Our oil abides by Dutch regulations in terms of THC content.

## **CBD E-LIQUIDS**

### **WHAT IS INSIDE THE E-LIQUID?**

Our e-liquids are made from 99% pure CBD obtained by supercritical CO<sub>2</sub> extraction, which is safer because no solvents will remain. In addition to this, the CBD extract is mixed with propylene glycol and vegetable glycerin both of which are inactive solvents used to vaporize CBD efficiently.

### **WHAT PERCENTAGE OF CBD/THC IS IN IT?**

We offer two types of e-liquid, one is 50mg and the other is 200mg, which means they are concentrated respectively at 0.5% and 2% (or 20mg/ml). The THC in it represents an extremely low fraction which is lower than 0.005% or 50ppm (parts per million).

### **WHAT OTHER INGREDIENTS DO THEY CONTAIN?**

Low to undetectable amounts of phytocannabinoids and terpenoids may remain in the end product, since Cannabis sativa L. contains around 520 different known molecules.

## **CBD OIL**

### **WHAT IS INSIDE THE CBD OIL?**

The CBD oil offered consists of raw plant extracts obtained through supercritical CO<sub>2</sub> extraction. It is believed that full spectrums and whole blends contain all the healthy nutrients the plant can provide us. That is why the extract is then only mixed with food-grade hemp seed oil to dilute it to the specific concentration.

### **WHAT OTHER INGREDIENTS DOES IT CONTAIN?**

Our CBD oil only contains our whole plant extract from hemp cannabis flowers and leaves which can add up to 520 molecules, plus the hemp seed oil.

## **MARKETING**

HempFlax has the ability to directly source its raw materials. We believe that nature holds remedies to many ailments and that's why our CBD products are as close to the raw material as you would get if you were to consume the fresh plant. Our hemp is grown within the EU without pesticides, herbicides nor external contamination.

We have been developing our own method of CBD production and when consulting external companies, we are open to improving any part of the transformation.

Furthermore, we are aware of the extremely wild CBD marketing trends and we firmly believe in providing affordable and effective products to our customers, while avoiding quick money. This is the main reason why our Group is selling in retail and bulk worldwide, through tailor-made B2B (business-to-business) orders as well as single B2C (business-to-consumer) parcels. We are transparent and strive to satisfy all of our customers.

Eventually, all our batches can be traced back to their field. This is undisputedly supported by the recent ICCT+ certification given to HempFlax, which is the only company in the hemp fibre industry to obtain it.

### **WHY ARE THIRD PARTY TEST RESULTS ADEQUATE?**

Ohmi is a high-quality orientated research and analysis company, which conducts its own pharmaceutical tests, extraction and analysis, making them a partner of outstanding importance when it comes to safety.

### **WHICH MACHINES ARE USED FOR TESTING?**

At our end, we are using in-field testing (MyDx) and laboratory testing (HPLC & GC). Each and every batch is analysed by third party equipment before being shipped out.

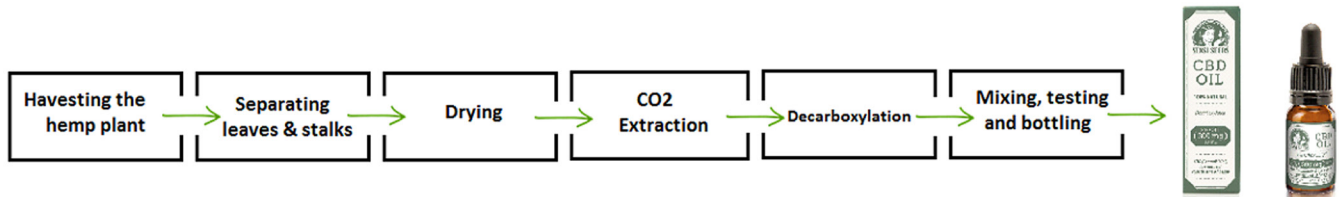
### **WHERE DO YOU SOURCE YOUR CBD FROM?**

We source our CBD from HempFlax, which is one of the companies in our group. The plants are grown in the Netherlands, Germany and Romania.

## MARKETING<sup>(CONTINUED)</sup>

### HOW IS IT PROCESSED?

During harvesting the upper third (mostly the flowers and leaves) of the plant are separated from the stalks (which are used to create fibre and shives). The flowers and leaves are directly thrown into a mobile dryer to reduce their water content. The output is then stored in a modified atmosphere for a few weeks to several months for preservation. Afterwards, CBD is obtained by supercritical CO<sub>2</sub> extraction, which is then mixed, tested and bottled.



### WHICH SOLVENTS ARE USED?

For now, we are only using CO<sub>2</sub> which is very safe and environmentally friendly. It leaves no contaminants in the extracted product and yields a whole blend of our finest hemp plant extract.

### WHICH OTHER INGREDIENTS ARE USED AND WHY?

As the components are fat or alcohol-soluble, we mix our CBD extract predominantly with hemp oil. To increase the bioavailability and the absorption of CBD through the digestive tract, coconut oil may also be used.

### WHAT IS YOUR WAIT TIME ON ORDERS?

We have a specific service tailored to send out products once payment has been cleared.

## QUESTIONS INVOLVING THE USE OF THE OIL/E-LIQUID

### WHAT ARE THE VARIOUS WAYS OF CONSUMPTION?

The CBD oil can be taken orally as a dietary supplement, administered sublingually (under the tongue), or applied topically. Moreover, the skin possesses CB<sub>2</sub> receptors which are partially activated by CBD and may have a positive action against sebum (see related FAQ on endocannabinoid system for further information). To the best of our knowledge, CBD is safe to consume through any type of administration. Keep in mind, the CBD oil product should not be smoked. For smoking, we recommend the CBD e-liquid. The e-liquid can be vaporized using special herbal vaporizer engineered for CBD vaping. Please be careful when operating it since the liquid tends to be sticky and combustion can occur easily thus producing harmful free radicals. As a precaution, e-liquid should only be used in e-cigarettes specifically created for it.

### ARE YOUR E-LIQUIDS COMPATIBLE WITH ALL E-CIGARETTES/VAPORIZERS?

Yes. Our e-liquids are compatible with all electronic cigarettes and vaporizers on the market. Nonetheless, the mix may taste too strong or even burnt. These effects can occur when the vaporizer is overheated or when the product has recently been produced. Regarding the latter, please inform customers to allow it to mature for two weeks before using.

## **QUESTIONS INVOLVING THE USE OF THE OIL/E-LIQUID<sup>(CONTINUED)</sup>**

### **WHAT IS THE RECOMMENDED DOSAGE OF THE E-LIQUID/OIL?**

After extensive research, we found that a dosage of 15mg to 30mg twice a day, can be regarded as a standard dosage for oil. As a global approach, we recommend “starting low, going slow” to find out your specific daily dosage, as each person differs. Furthermore, we advise all customers to expand their knowledge according to his/her personal interest on a search engine such as Google Scholar.

### **ARE THERE ANY KNOWN SIDE EFFECTS? CAN I USE CBD IN COMBINATION WITH OTHER MEDICATION?**

CBD itself has little to no significant side effects in the average person. However, CBD consumption can cause blood pressure to drop and with excessive consumption, can potentially pose a risk to anyone who already has low blood pressure. It also interacts with specific types of enzymes, called P450 enzymes, which metabolize potentially toxic compounds in the body (in chemotherapy for instance). We strongly suggest that consumers are aware about this and seek medical recommendations from their practitioners.

### **CAN CBD BE TRACED IN THE BLOOD?**

Theoretically, anything can be traced in the blood. However, nowadays tests only regard THC as a target, or to be more technically correct THC-COOH which is degraded from THC by the body after consumption. If you fear a possible drug test we advise you to stick by the daily recommended dosage, as any dosage higher than 300mg might lead to a false positive test result.

### **HOW LONG CAN THE E-LIQUID/OIL BE STORED?**

Our CBD products can be stored for long periods of time away from any light and under cool conditions. However, we don't advise to store it for too long as studies have shown that CBD content stored in oil at 20°C can decrease by 1% per year.

### **HOW LONG CAN THE CBD OIL/E-LIQUID BE STORED?**

Our CBD oil can be stored up to 12 months and our e-liquid for 18 months, if kept in a cool, dark place.

### **CAN THE E-LIQUID/OIL BE USED IN COMBINATION WITH OTHER OILS/LIQUIDS?**

Even though oil and e-liquid can be combined with a number of liquids, it should be taken into consideration that mixing the extract might modify the conservation rate. However, we do recommend mixing CBD with your favourite essential oils, for example, in food products that will be eaten within a short amount of time and not left to oxidize as that will cause the oils to become rancid.

## **SHIPMENT**

### **HOW ARE THE PRODUCTS SHIPPED?**

The products are shipped in padded envelopes without any specific signs or marks on it with standard postage fees.

### **TO WHICH COUNTRIES CAN WE SHIP WITHOUT ANY PROBLEM?**

Under Dutch law, our CBD oils and e-liquids are allowed in this country. Since you place your order in a Dutch company you will not be in violation of any law. Nevertheless, products are occasionally stopped at customs for reasons we are not privy to.

## EXTRA INFORMATION

### WHAT IS THE ENDOCANNABINOID SYSTEM?

Mammalians possess an endocannabinoid system or ECS that produces endocannabinoids; the majority being represented by anandamide and 2-arachidonylglycerol which mimic THC. Although their role and action isn't completely understood, it is widely documented. They act as keys to activate certain physiological processes by extra-cellular activation (i.e. the modulation of the release of neurotransmitters, the regulation of the perception of pain, as well as cardiovascular, gastrointestinal and hepatic functions). The ECS can modulate schizophrenia, anxiety, pain and various types of cancer. Since phytocannabinoids (plants) and endocannabinoids (mammals) are very similar, they both act on either system, by either promoting (agonist) or inhibiting (antagonist) the activity of the cannabinoid receptors.

### \*WHAT KIND OF TESTS ARE DONE ON OUR PRODUCT?

All of our hemp extracts and our finished products are tested for cannabinoid potency, heavy metals, bacterial and microbial life, mycotoxins (fungi), and pesticides.

### WHAT IS DECARBOXYLATION?

The naturally occurring CBD is always found in an inactive form in the plant under the name of cannabidiolic acid (CBD-A). This acid can then be heated to transform CBD-A into the active component, CBD. During decarboxylation, the addition of heat aids in gently removing the carboxylic acid function from the molecule.

We strive for chemical optimization of the process, through precise engineering of the steps and unwavering research in the field, in order to deliver a stable, high-potency product.

### WHAT IS THE DIFFERENCE BETWEEN SUBCRITICAL AND SUPERCRITICAL CO<sub>2</sub> EXTRACTION?

CO<sub>2</sub> is used as a non-toxic solvent used to extract oils from plant materials. It is a great solvent. As its temperature is adjustable, subcritical extractions happen at low temperatures. Supercritical extraction happens at a higher temperature. CO<sub>2</sub> also leaves no residuals behind in the extract compared to other solvents such as ethanol.

### DISCLAIMER

*As the global laws pertaining to CBD are unclear, we do not take responsibility, and expressly disclaim all liability for, any products held back by customs. While the information contained within the site is periodically updated, no guarantee is given that the information provided is correct, complete, and up-to-date at any given time.*