

# ESSENTIA SCIENTIFIC PRODUCT SPECIFICATIONS: CBDA EXTRACT



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## THE ESSENTIA ADVANTAGE:

Instead of relying on traditional mainstream extraction methods that involve solvents, Essentia Scientific leverages a patented water-based extraction that results in a versatile high purity microcrystalline cannabinoid powder that is odorless and tasteless, is easily dosed, and can be readily integrated into nearly all existing and new infusion products. Our process leverages water to leach cannabinoids from the plant without the use of heat, harsh chemicals and hydrocarbons. Our process will extract the cannabinoids while leaving contaminants such as pesticides, heavy metals, microbials, and mycotoxins behind with the biomass resulting in a cleaner product.

## PRODUCT DESCRIPTION:

Our product is a microcrystalline powder containing high purity cannabidiolic acid (CBDA) with minor acidic cannabinoids and other natural components derived from industrial hemp. Our extracts are odorless and tasteless, can be easily handled and dosed, and readily integrated into wide range of products. There are no contaminants to inhale or ingest such as sugars, starches, sterols, proteins, phenols, anthocyanins, carotenoids, fats, oils or other plant materials. They can come in either isolate, full spectrum, or broad spectrum (THC free) form. Clients can also specify custom formulated blends with desired ratio of CBDA and CBD. Although our products naturally come in a powder and acidic form, we can further process it into an oil based form or as activated CBD form.

**Appearance: BEIGE CRYSTALLINE POWDER**

**Odor: SUBTLE EARTHY SCENT**

**Consistency: FINE POWDERED CRYSTAL**



## PRODUCT HIGHLIGHTS:

- 98+% purity
- THC-free
- Clean and safe water-based extraction method
- No residual solvents or heavy metals
- Remediation of pesticides and mycotoxins
- Flavorless and odorless
- Flowable powder- easy to handle and dose
- Ultimate infusion ingredient for oil-based products



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## CBDA BENEFITS - a differentiator for your products

CBDA is a non-psychoactive compound that serves as a precursor to CBD. More specifically, CBDA is decarboxylated to create CBD, when heated. Bioavailability studies have been done on CBD and CBDa whereby CBDa has proven to be about 19 times more bioavailable than CBD (*Jones et al., published in the 24th Annual Symposium of the International Cannabinoid Research Society 2014*). Despite CBDA's superior bioavailability, it hasn't been as widely used as CBD due to the fact that CBDA has not previously been available in a stable microcrystalline form.

While most cannabinoids bind directly with either the CB1 or CB2 receptors, CBDA doesn't work the same. Instead, CBDA interacts with the endocannabinoid system by inhibiting the cyclooxygenase-2 (COX-2) enzyme.

COX-2 enzymes are associated with inflammation after an injury or infection, so by blocking COX-2 enzymes, CBDA can relieve inflammation and associated pain. CBDA has also been shown to help with anxiety and depression, due to its ability to attach to serotonin receptors.

Serotonin helps regulate the body's sleep-wake cycles and the internal clock. And it is thought to play a role in regulating appetite, emotions, and motor, cognitive, and autonomic functions. Importantly, serotonin is also closely linked to mood disorders. Low levels of serotonin, in particular, have been linked to depression. Available research has shown that CBDA attaches to the 5-HT1A serotonin receptor. Other studies have demonstrated that the activation of this receptor has anti-depressant and anxiolytic effects. Therefore, researchers have theorized that CBDA may affect serotonin levels in the body, therefore helping regulate mood disorders.



**Flavorless**



**Compressible**



**Odorless**



**Extremely  
easy to handle**



**Can be ground  
into a fine powder**

