

Learn About the Cannabinoids in our CBD Products

What Are Cannabinoids?

Cannabinoids don't come directly from the cannabis plant. The plant produces cannabinoid acids which, when dried or heat activated, will produce these cannabinoids. There are believed to be at least 113 different cannabinoids found in the cannabis plant.

Through laboratory testing of cannabis products, scientists can determine the various chemicals and compounds that are present. Cannabinoids and terpenes are two categories of ingredients which can have beneficial effects on the human body. Different strains (varieties) of the cannabis plant will have unique compound profiles.

Alura Organics CBD oil products, derived from industrial hemp, contain specific amounts of cannabinoids and terpenes, which can be seen on corresponding lab documents for each product. Following is a description of the cannabinoids found in Alura Organics CBD products and their health benefits.

Common Cannabinoids

CBD (cannabidiol) – This cannabinoid is non-psychoactive, which means that it does not induce a euphoric high. What's more, when both CBD and THC are present, CBD counteracts the psychoactivity of THC. CBD has been found to have a calming effect when used to treat sleep loss and anxiety. (<u>1</u>) Studies have also indicated that CBD may be able to treat health problems related to diabetes by reducing inflammation and controlling blood glucose. (<u>2</u>) CBD also shows potential for other medical conditions, such as reducing pain and inflammation, and for treating multiple sclerosis and epilepsy. (<u>3</u>)

CBG (cannabigerol) – CBG is also non-psychoactive, and it typically occurs in cannabis only in trace amounts. Researchers have found that CBG is effective as an analgesic in the treatment of pain and that it has anti-inflammatory properties. It may also be helpful as a muscle relaxant for spasticity disorders such as multiple sclerosis. (4)(5) CBG has been found to have a beneficial effect on inflammatory bowel disease (IBD) and it may be therapeutic for individuals with glaucoma. (6)(7) Other medical conditions which may be alleviated by CBG include nausea, vomiting and neurological disorders. (8)(9) Studies have also shown CBG to be effective in inhibiting colorectal cancer cell growth. CBG is antibacterial and it may be helpful for bladder dysfunctions. (10)(11)(12) **CBN (cannabinol)** – CBN has little to no intoxication effect. Research indicates possible health benefits of CBN, including the treatment of insomnia, pain relief, antibacterial and anti-inflammatory properties, and as an appetite stimulant. (13)(14)(15)(16)(17)

THC (delta-9 tetrahydrocannabinol) – This is the cannabinoid that is strongly psychoactive, producing the "high" that people experience when ingesting marijuana. Studies have shown that THC may help with chronic pain, sleep disorders, nausea and appetite loss, as well as anxiety, depression and stress. (18)(19)(20)(21)

CBC (cannabichromene) – Another popular non-intoxicating cannabinoid used in medical research, CBC binds to receptors in the body that are related to the perception of pain. It has been found to be effective in treating stress and anxiety, and it has anti-inflammatory and anti-bacterial properties. (22)(23)(24)

THC-A (tetrahydrocannabinolic acid) – Although THC-A sounds like THC, its properties are quite different. Unlike THC, THC-A isn't psychoactive. It is present in raw cannabis, and as the plant is drying (or if it's heated), THC-A changes to THC. As for its effects on human health, possible benefits include anti-inflammatory characteristics that are helpful in treating arthritis and lupus. It may also treat neurodegenerative disorders, alleviate nausea and loss of appetite and inhibit prostate cancer growth. (25) (26) (27) (28)

CBD-A (cannabidiolic acid) – CBD-A is the precursor of CBD and, like CBD, is non-psychotropic. Like THC-A, it occurs in raw cannabis. When dried or heated, CBD-A becomes CBD, and CBD-A has its own unique properties. A study conducted in 2014 found that CBD-A inhibits breast cancer cell migration. (29) CBD-A offers the possibility of other health benefits, such as for treating anxiety, depression, nausea and epilepsy. GW Pharmaceuticals, the manufacturer of CBD-derived Epidiolex (used to treat epilepsy), is now researching CBDA with the possibility of adding it to their formula, as it appears to take effect more quickly than CBD, while CBD has longer-lasting benefits. As an anti-inflammatory, CBD-A can achieve the same effect as non-steroidal anti-inflammatory drugs (NSAIDs), and it has been found that CBDA is even more effective at this than THC. (30)(31)(32)(33)



Learn About the Terpenes in our CBD Products

What Are Terpenes?

Terpenes are the organic compounds in plants that are the primary ingredients of aromatic oils. Their function, from the plant's perspective, is to provide protection from insects and environmental stresses, while attracting pollinators. For humans, terpenes offer many medicinal benefits, and they're widely used in fragrances and aromatherapy.

In the cannabis plant, terpenes are secreted from the same glands as cannabinoids, and more than 100 terpenes have been identified. Every plant variety has its unique composition, which includes a terpene type and flavor. Each terpene produces its unique effects on the body, from stress relief and relaxation to clearness, focus and mood elevation. Terpenes may also offer potential health benefits, and research is ongoing as to their efficacy for relieving various ailments. (1)(2)

The Terpenes in our CBD Products

Chemical Compound	Aroma	Where It's Found	Potential Health Benefits	Sources
beta-Bisabolene (β-Bisabolene)	Citrus	Anise, Roman Chamomile, Oregano, Wild Carrot; Essential Oils of Lemon, Bergamot and Wild Carrot	Treatment of breast cancer, tumors; antibacterial; anti- oxidant	(<u>3)</u> (<u>4</u>) (<u>5</u>)
beta-Farnesene (β-Farnesene)	Woody, Citrus, Herbal	Sweet Basil, Potato, Hops, Ginger, Turmeric, Ylang-Ylang, German Chamomile	Antibacterial, antifungal, anti- inflammatory, antispasmodic, calming, sedative	(<u>6</u>)
Guaiol	Pine, Woody	Cypress Pine, Guaiacum, Ginger	Anti-inflammatory, antimicrobial	(<u>7</u>) (<u>8</u>) (<u>9</u>)
beta-Maaliene (β-Maaliene)		Agarwood	Antioxidant, antimicrobial	(<u>10</u>) (<u>11</u>)

Calanana		Cineres	A	(12) (12)
Calarene	woody	Ginseng,	Anti-Inflammatory,	(12)(13)
		Patchouli,	anti-cancer, anti-	
		Spikenard	neuroinflammatory,	
		essential oil	antioxidant	
beta-Caryophyllene	Cloves, Pepper,	Black Pepper,	Treats anxiety,	(<u>14</u>) (<u>15</u>) (<u>16</u>)
(β-Caryophyllene)	Spicy, Woody	Cinnamon, Cloves	depression, pain,	
			ulcers; stress relief	
alpha-Humulene	Earthy, Hops,	Basil, Cloves,	Anti-inflammatory,	(<u>17</u>) (<u>18</u>) (<u>19</u>)
(α-Humulene)	Woody	Coriander, Hops	antibacterial, anti-	
			tumor	
Cadinene	Woody	Cade Juniper	Inhibits growth of	(20) (21) (22)
		(Prickly Juniper,	ovarian cancer	(23)
		Prickly Cedar,	cells, antifungal,	
		Sharp Cedar)	antioxidant.	
		,	antimicrobial	
alpha-Guriunene	Woody		anti-inflammatory.	(24) (25)
(a-Guriunene)	moody		anti-cancer.	(=-) (==)
(a carjanene)			antimicrobial	
Limonene	Citrus	Fruit Rinds	Treats anxiety	(26) (27) (28)
(d-Limonene)	Citius	luniner	depression	(20)(27)(20)
(d-Linionene)		Doppormint	inflammation	(23)(30)
		Pepperinint,	concor poin /	
		Ruselliary	caller, pair /	
			elevated mood,	
	51 1 011		stress relief	
Nerolidol	Floral, Citrus,	Basil, Anise Fruit,	Anti-fungal, anti-	(31)(32)(33)
	Woody	Hops, Cardamom,	microbial, anti-	(<u>34</u>) (<u>35</u>) (<u>36</u>)
		Chamomile,	parasitic,	
		Corlander, Ginger,	antioxidant, anti-	
		Honeysuckle,	inflammatory,	
		Jasmine, Tea Tree,	sedative; treatment	
		Lemongrass	for pain, ulcers,	
			cancer, memory	
			impairment	
alpha-Pinene	Pine	Pine Needles,	Anti-Inflammatory,	(<u>37</u>) (<u>38</u>) (<u>39</u>)
(α-Pinene)		Basil, Dill, Parsley,	anti-viral, gastro-	(<u>40</u>) (<u>41</u>) (<u>42</u>)
		Rosemary	protective;	(<u>43</u>)
			treatment for	
			anxiety, asthma,	
			cancer, pain, ulcers;	
			alertness, memory	
			retention	
Aristolene		Sweet Flag Oil;	Antioxidant, anti-	(44) (45) (46)
		Herbs. Spices and	cancer.	(47)
		Root Vegetables	antimicrobial	
Eucalyptol	Herbal. Mintv	Tea Tree	anti-inflammatory	(48) (49) (50)
		Camphor Laurel	anti-bacterial	(51) (52) (53)
		Sweet Basil, Bay	antioxidant	(54)
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		Leaves, Rosemary,	bronchodilator;	
		Wormwood,	treatment for pain	
		Common Sage	as well as asthma,	
			emphysema and	
			other respiratory	
			diseases	
Camphene	Herbal,	Dill, Caraway,	Anti-inflammatory,	(<u>55)</u> (<u>56</u>) (<u>57</u>)
	Woody, Fir,	Fennel, Hyssop,	anti-fungal,	(<u>58</u>)
	Camphor,	conifer, nutmeg,	antioxidant;	
	Citrus, Minty	ginger, rosemary	beneficial for	
			cardiovascular	
			health. treatment	
			of pain	
E-Farnesene	Woody, Citrus,	Sweet Basil.	Antibacterial.	(59)
	Herbal	Potato, Hops.	antifungal, anti-	(/
		Ginger, Turmeric	inflammatory	
		Ylang-Ylang	antisnasmodic	
		German	calming sedative	
		Chamomile	culture, securic	
Farnesol	Floral	Balsam Citronella	Antihacterial	(60) (61) (62)
1 diffesor	TIOTAI	Cyclomen	antimicrobial	$(\underline{00})(\underline{01})(\underline{02})$
		Lemongrass Musk	antinvidant anti-	(03)(04)(03)
		and Pose oils	inflammatory anti-	
			concor	
alpha Ricabalal	Floral	Cormon	Anti inflammatory	
	FIUIAI	Chamomilo	anti nocicontivo	(00)(07)(08)
(u-bisabolol)		Chamonnie	anti-nociceptive,	(09)(70)(71)
			antiseptic,	
			antimicrobial	
			antiovidant anti	
			cancer, anti-irritant	
D.C	City		(skin protectant)	
P-Cymene	Citrus	Cumin, Inyme,	anti-inflammatory,	(12)(13)(14)
		Corlander,	anti-tumor, pain	(<u>75</u>) (<u>76</u>)
		Eucalyptus,	relief, antioxidant	
		Oregano		/ / /
Linalool	Floral	Lavender	I reatment for	$(\underline{77})(\underline{78})(\underline{79})$
			anxiety, depression,	(<u>80</u>) (<u>81</u>) (<u>82</u>)
			inflammation,	
			insomnia,	
			neurodegenerative	
			disorders, pain;	
			mood	
			enhancement;	
			sedating	

Myrcene	Earthy, Cloves, Herbal	Hops, Lemongrass, Mango, Thyme	Anti-oxidant; treats inflammation, insomnia, pain; relaxing, sedating	(<u>83)</u> (<u>84</u>) (<u>85</u>) (<u>86</u>)
Phytol	Earthy, Floral, Herbal	Green Tea	Antioxidant, anti- inflammatory, pain relief	(<u>87</u>) (<u>88</u>)
Isopulegol	Minty, Woodsy	Mint, Eucalyptus, Lemongrass, Parsley	anti-anxiety, anti- depressant, gastroprotective, anti-convulsive	(<u>89</u>) (<u>90</u>) (<u>91</u>)
Terpinene	Woodsy	Tea Tree, Marjoram, Cardamom, Turmeric, Pine, Roman Chamomile	antiseptic, anti- inflammatory, antimicrobial,	(<u>92)</u> (<u>93)</u> (<u>94</u>) (<u>95</u>)
Geraniol	Floral	Bergamot, Carrot, Coriander, Lavender, Lemon, Lime, Nutmeg, Orange, Rose, Blueberry, Blackberry	analgesic, anti- inflammatory, antioxidant, anti- cancer, antibacterial, antifungal	(<u>96)</u> (<u>97) (98)</u> (<u>99</u>) (<u>100</u>)
Myrcene	DUPLICATE			
gamma-Terpinene (γ-Terpinene)	Floral, Herbal, Pine	Apples, Conifers, Cumin, Lilac, Nutmeg, Tea Tree	Antibacterial, antifungal, antioxidant, sedative; treats cancer	(<u>101</u>) (<u>102</u>) (<u>103</u>) (<u>104</u>) (<u>105</u>)
gamma-3-Carene (δ-3-Carene)	Citrus, Earthy, Pine	Rosemary, Basil, Bell Pepper, Cedar, Turpentine	Anti-inflammatory, anti-fungal, bone health	(<u>106</u>) (<u>107</u>) (<u>108</u>) (<u>109</u>)