

### SPECIFICATIONS: Hempseed Oil

Hemp seed oil is a raw ingredient used in edible oil products. It consists of organic cold pressed hemp seeds.

<b>Application and Use</b>	Ingredient	<b>Appearance</b>	Translucent green liquid
<b>Composition</b>	100% Hemp seed oil by weight	<b>Odor</b>	Mild and nutty
<b>Organic Certification</b>	Certified Organic	<b>Consistency</b>	Liquid
<b>Storage and Shelf Life</b>	12 months from the date of production in original packaging. Store cool dark and dry.	<b>Density</b>	0.915 - 0.925
<b>Ingredients used in</b>	Classic, Companion, and Signature Blends	<b>Solubility</b>	Soluble at oils

<b>Ingredient</b>	Hemp seed oil	<b>Item Code</b>	HSO
<b>Botanical Name</b>	<i>Cannabis sativa</i>	<b>Organic Certification</b>	Certified Organic
<b>Plant parts used in oil</b>	Seed	<b>Country of Origin</b>	Canada

<b>Nutritional</b> Method: AOAC 954.02, AOCS Cd 8b-90, AOCS Ca 5a-40, Veratox Elisa Gliadin R5		<b>Heavy Metals</b> Method: ICP-MS	
Gluten	<20 ppm	Arsenic	< 10 ppb
Peroxide Value	0-10 meq/kg	Cadmium	< 10 ppb
Fat	96-100%	Mercury	< 10 ppb
<b>Fatty Acid Profile (Area %)</b> Method: Ce 2b-11 (2011), Ce 1i-07, Ce 2-66 (2009)		Lead	< 10 ppb
Palmitic Acid	>4.5%	<b>Mycotoxins</b> Method: UHPLC-MS/MS	
Stearic Acid	>2%	Total Aflatoxin	< 5 ppb
Oleic Acid	>8.5%	Total Ochratoxin	< 5 ppb
Linoleic Acid	>44%	<b>Microbiological Contamination</b> Method: qPCR	
Alpha Linolenic Acid	>14%	Total Aerobic Bacterial Count	< 1,000 CFU/g
<b>Solvents</b> Method: GC/MS		Total Coliform Bacterial Count	< 100 CFU/g
Propane, Propane, Butanes, Pentane, Hexane, Benzene, Heptane, Toluene, Xylenes Ethanol, Acetone, Isopropyl Alcohol	0 ppb	Total Bile Tolerant Gram Negative Count	< 1,000 CFU/g
<b>Solvents</b> Method: GC/MS		Total Yeast and Mold	< 1,000 CFU/g
Propane, Propane, Butanes, Pentane, Hexane, Benzene, Heptane, Toluene, Xylenes Ethanol, Acetone, Isopropyl Alcohol	0 ppb		

<b>Pesticides</b> Testing Methods: GC/MS and/or LC/MS		
Abamectin 71751-41-2, Acequinocyl 57960-19-7, Acequinocyl 57960-19-7, Bifenazate 149877-41-8, Bifenthrin 82657-04-03, Chloromequat chloride 999-81-5, Cyfluthrin 68359-37-5, Cyfluthrin 68359-37-5, Daminozide 1596-84-5, Etozazole 153233-91-1, Fenoxycarb 72490-01-8, Paclobutrazol 76738-62-0, Pyrethrin 8003-34-7, Spinosad 168316-95-8, Spiromesifen 283594-90-1, Myclobutanil 88671-89-0, Imazalil 35554-44-0, Imidacloprid 138261-41-3, Spirotetramat 203313-25-1, Trifloxystrobin 141517-21-7		< 10 ppb

### Specification Sheet: Hemp Classic Extract

Hemp Classic Extract is an oil meant for oral ingestion. It consists of blended hemp extract and cold pressed organic hempseed oil.

<b>Application and Use</b>	Dietary Supplement	<b>Appearance</b>	Greenish-brown, oily liquid
<b>Composition</b>	3% - 6% hemp extract by weight 94% - 97% hemp seed oil by weight	<b>Odor</b>	Grassy, earthy odor
<b>Organic status</b>	Extract: not certified Hemp seed oil: certified organic	<b>Consistency</b>	Viscous below 32 degrees F
<b>Organic Certification</b>	Not certified organic	<b>Density</b>	0.915 mg/mL - 0.925 mg/mL
<b>Storage and Shelf Life</b>	500 days from the date of production in original packaging. Store cool dark and dry.	<b>Solubility</b>	Soluble in oils and ethanol
<b>Packaging</b>	10ml, 30ml, 60ml amber glass essence bottle		

<b>Ingredient</b>	Hemp seed oil	<b>Item Code</b>	HSO
<b>Botanical Name</b>	<i>Cannabis sativa</i>	<b>Organic Certification</b>	Certified organic



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<b>Plant parts used in oil</b>	Seed	<b>Country of Origin</b>	Canada
<b>Ingredient</b>	Hemp CO2 extract	<b>Item Code</b>	DCFL
<b>Botanical Name</b>	<i>Cannabis sativa</i>	<b>Organic Certification</b>	Not certified
<b>Plant parts used in oil</b>	Seed, stem, flower	<b>Country of Origin</b>	USA
<b>Ingredient</b>	Hemp CO2 extract	<b>Item Code</b>	DCFL
<b>Botanical Name</b>	<i>Cannabis sativa</i>	<b>Organic Certification</b>	Not certified
<b>Plant parts used in oil</b>	Seed, stem, flower	<b>Country of Origin</b>	USA

Our Low THC Hemp Extract Product is manufactured by Bluebird Botanicals according to cGMP practices.

Batch: CL 0391. Batch Size: 378.5 Liters (348.22 Kg). Total Quantity Produced (packaging plan based on estimates): 10 ml bottle: 2815.30 ml bottle: 4205. 60 ml bottle: 2455. Volume allocated to bulk wholesale purchasing: 75708.2 ml (75.7 liters). Yield: 99.69%. Supplier Lot Codes: Primary Ingredient: MY-300-001, 10.30.18-ASH-1C, 12.20.18-SCH-1WCD, R0122718BB. Carrier: 17-WINEPIO-01

<b>Potency Method: UPLC</b>		<b>Mycotoxins Method: UHPLC-MS/MS</b>	
Total Cannabinoids	8.4 - 10 mg/ml (250 -300 mg/ounce)	Total Aflatoxin	< 5 ppb
Tetrahydrocannabinol (THC)	< 0.3%	Total Ochratoxin	< 5 ppb
<b>Heavy Metals Method: ICP_MS</b>		<b>Microbiological Contamination Method: qPCR</b>	
Arsenic	< 10 ppb	Total Aerobic Bacterial Count	< 1,000 CFU/g
Cadmium	< 10 ppb	Total Coliform Bacterial Count	< 100 CFU/g
Mercury	< 10 ppb	Total Bile Tolerant Gram Negative Count	< 1,000 CFU/g
Lead	<30 ppb	Total Yeast and Mold	< 1,000 CFU/g
<b>Solvents Method: GC/MS</b>			
Hexane: < 6 ppm, Benzene: < 0.2 ppm, Toluene: < 18 ppm, Xylenes: < 43 ppm			
Ethanol, Acetone, Isopropyl Alcohol, Propane, Butanes, Pentane, Heptane			< LOQ (100 ppm)
<b>Pesticides Method: GC/MS and/or LC/MS</b>			
Abamectin 71751-41-2, Acequinocyl 57960-19-7, Acequinocyl 57960-19-7, Bifenazate 149877-41-8, Bifenthrin 82657-04-03, Chlormequat chloride 999-81-5, Cyfluthrin 68359-37-5, Cyfluthrin 68359-37-5, Daminozide 1596-84-5, Etoxazole 153233-91-1, Fenoxycarb 72490-01-8, Paclobutrazol 76738-62-0, Pyrethrin 8003-34-7, Spinosad 168316-95-8, Spiromesifen 283594-90-1, Myclobutanil 88671-89-0, Imazalil 35554-44-0, Imidacloprid 138261-41-3, Spirotetramat 203313-25-1, Trifloxystrobin 141517-21-7			< 30 ppb

DISCLOSURE OF PRODUCT COMPONENTS: OUR LOW THC HEMP EXTRACT PRODUCTS ARE BLENDED USING A COMBINATION OF FULL SPECTRUM CANNABINOID EXTRACTS, ORGANIC CARRIER OILS AND ESSENTIAL OILS, THE CONTENTS, IDENTITY AND PURITY OF WHICH HAVE BEEN TESTED USING A VARIETY OF METHODS, INCLUDING AOAC-APPROVED METHODS OF ANALYSIS. AOAC INTERNATIONAL IS AN INDEPENDENT, INTERNATIONALLY RECOGNIZED 501(C)(3) NOT-FOR-PROFIT ASSOCIATION WHOSE ANALYTICAL STANDARDS APPLY TO A BROAD RANGE OF INDUSTRIES INCLUDING FOODS, BEVERAGES AND DIETARY SUPPLEMENTS. INGREDIENT AND SERVICE PROVIDERS HAVE BEEN QUALIFIED BY AN INTERNAL QUALITY MANAGEMENT TEAM ACCORDING TO A CGMP-COMPLIANT PROTOCOL. THE QUALIFICATION OF A SUPPLIER ENTAILS INGREDIENT TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING ASSAYS: FATTY ACIDS (OFFICIAL METHODS OF ANALYSIS OF AOAC INTERNATIONAL, 18TH ED., METHODS 922.06 AND 954.02), PEROXIDE VALUE (AOAC INTERNATIONAL, OFFICIAL METHODS 965.33 AND 983.23), YEAST AND MOLD ANALYSIS (AOAC INTERNATIONAL, OFFICIAL METHOD 997.02), AEROBIC PLATE COUNT (AOAC INTERNATIONAL, OFFICIAL METHOD 990.12), ELEMENTS (AOAC INTERNATIONAL, OFFICIAL METHODS 2011.19 AND 993.14), REGULATED MYCOTOXINS (CITATION: ANALYTICAL AND BIOANALYTICAL CHEMISTRY, 402:2675-2686), E. COLI AND COLIFORMS (AOAC INTERNATIONAL, OFFICIAL METHOD 991.14), MULTI-RESIDUE ANALYSIS (AOAC INTERNATIONAL, OFFICIAL METHOD 2007.01), GLUTEN (AOAC INTERNATIONAL, OFFICIAL METHOD 2012.01), RESIDUAL SOLVENTS (UNITED STATES PHARMACOPEIA METHOD 467). THE AFOREMENTIONED METHODS OF ANALYSIS UTILIZE BUT ARE NOT NECESSARILY LIMITED TO QUANTIFICATION BY HPLC, UPLC/MS, GC/MS, IAC, SFC, ICP-MS. INGREDIENT CONSISTENCY IS ADDITIONALLY EVALUATED THROUGH REGULAR ORGANOLEPTIC SCREENING TO CONTROL TASTE, ODOR, COLOR AND CONSISTENCY. THE FOLLOWING SUPPLIERS/ MANUFACTURERS/SERVICE PROVIDERS HAVE BEEN QUALIFIED BY INTERNAL QUALITY MANAGEMENT: HEMP PRODUCTION SERVICES, SUPPLIER OF ORGANIC HEMP SEED OIL, JEDWARDS INTERNATIONAL, SUPPLIER OF ORGANIC HEMP SEED OIL, ORGANIC OLIVE OIL, ORGANIC BLACK CUMIN SEED OIL, EDEN BOTANICALS, SUPPLIER OF SUPERCRITICAL CO2 EXTRACTED FRANKINCENSE (BOSWELLIA CARTERII) AND CANNABIS ESSENTIAL OIL, EBL HEALTH, MANUFACTURERS/SUPPLIERS OF CO2 HEMP EXTRACTS, PHYTO BOTANICALS, MANUFACTURER OF ETHANOL HEMP EXTRACT, HAMMER, MANUFACTURER/CO-PACKER OF GEL CAPSULES, CBD CRUSADE LLC, MANUFACTURER OF HEMP DISTILLATE. PROPRIETARY LOW THC HEMP EXTRACT PRODUCTS ARE MANUFACTURED BY BLUEBIRD BOTANICALS ACCORDING TO CGMP PRACTICES. ALL PRODUCTS ARE TESTED FOR MYCOTOXINS, PESTICIDES, ELEMENTS, RESIDUAL SOLVENTS, TERPENE PROFILES AND CANNABINOID POTENCY TO CONTROL ADHERENCE TO PRODUCT SPECIFICATIONS AND GUARANTEE CONFORMITY TO THE STRICT DEFINITION OF INDUSTRIAL HEMP (<0.3% DELTA9-THC, INCLUDING PRECURSORS). THIRD PARTY LABORATORY ANALYSIS IS CONDUCTED BY BOTANACOR SERVICES, DELTA VERDE LABORATORY, PROVERDE LABORATORIES AND COVANCE INC. ISO ACCREDITED (ISO 17025) ASSAYS ARE PROVIDED BY PROVERDE LABORATORIES AND COVANCE INC. SEE PRODUCT SPECIFICATION SHEET ABOVE FOR PRODUCT/INGREDIENT BATCH INFORMATION AND PROJECTED PACKAGING PLAN. ALL SUPPLIERS OF PACKAGING SUPPLIES HAVE BEEN QUALIFIED ACCORDING TO CGMP STANDARDS.