

SPECIFICATIONS: Hempseed Oil

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

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

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

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

Pesticides Method: 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, 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		< 10 ppb

SPECIFICATIONS: Black Cumin Seed Oil

Black cumin seed oil consists of organic cold pressed black cumin seeds. It a raw ingredient used in the edible oil products at Bluebird Botanicals.

Application and Use	Ingredient	Appearance	Light brown, translucent liquid
Composition	100% Black Cumin seed oil by weight	Odor	Spicy and pungent odor
Organic Certification	Certified Organic	Consistency	Liquid oil
Storage and Shelf Life	36 months from date of production in original packaging. Store cool dark and dry.	Density	0.918 - 0.928
Ingredients used in	Signature Blends	Solubility	Soluble in oils

Ingredient	Black Cumin seed oil	Item Code	BC
Botanical Name	<i>Nigella sativa</i>	Organic Certification	Certified Organic
Plant parts used in oil	Seed	Country of Origin	Israel

Nutritional - Method: AOAC 954.02, AOCS Cd 8b-90, AOCS Ca 5a-40, Veratox Elisa Gliadin R5		Heavy Metals Method: ICP-MS	
--------------------------------------------------------------------------------------------------	--	---------------------------------------	--

Gluten	<20 ppm	Arsenic	< 10 ppb
Peroxide Value	<50 meq/kg	Cadmium	< 10 ppb
Fat	96-100%	Mercury	< 10 ppb
Fatty Acid Profile (Area %) Method: -Ce 2b-11 (2011), Ce 1i-07, Ce 2-66 (2009)		Lead	< 10 ppb
Palmitic Acid	10-14%	Mycotoxins - Method: UHPLC-MS/MS	
Palmitoleic Acid	0-0.5%	Total Aflatoxin	< 5 ppb
Stearic Acid	2-5%	Total Ochratoxin	< 5 ppb
Oleic Acid	17-28%	Microbiological Contamination Method: qPCR	
Alpha Linolenic Acid	>14%	Total Aerobic Bacterial Count	< 1,000 CFU/g
Solvents 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
		Total Yeast and Mold	< 1,000 CFU/g

Pesticides Method: 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, 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, Paclbutrazol 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		< 20 ppb

 Specification Sheet: **Frankincense Essential Oil**

 Frankincense CO₂ is a raw ingredient used in oil products at Bluebird Botanicals.

Application and Use	Ingredient	Appearance	Transparent liquid
Composition	100% Frankincense CO ₂ extract by weight	Odor	Citrusy, pungent, spicy
Organic Certification	Not certified	Consistency	Liquid
Storage and Shelf Life	4 year from the date of production in original packaging. Store cool dark and dry.	Density	0.87 - 0.93
Products used in	S, SX	Solubility	Soluble in alcohol and fixed oils

Ingredient	Frankincense CO ₂ Essential Oil	Item Code	FRANK
Botanical Name	<i>Boswellia carterii</i>	Organic Certification	Not certified
Plant parts used in oil	Resin	Country of Origin	Somalia

Volatile Compounds Method: GC-MS		Heavy Metals Method: ICP-MS	
Total Essential Oil Content	70-85%	Arsenic	< 200 ppb
Alpha-Thujene	<10%	Cadmium	< 100 ppb
Alpha-Pinene	25-50%	Mercury	< 100 ppb
Farnesol	<0.1%	Lead	< 200 ppb
Mycotoxins Method: IAC		Microbiological Contamination Method: qPCR	
Total Aflatoxin	< 5 ppb	Total Aerobic Bacterial Count	< 1,000 CFU/g
Total Ochratoxin	< 5 ppb	Total Coliform Bacterial Count	< 100 CFU/g
Solvents Method: GC/MSD		Total Bile Tolerant Gram Negative Count	< 1,000 CFU/g
Propane, Butane, Pentane, Ethanol, Acetone, Isopropyl Alcohol, Hexane, Benzene, Heptanes, Toluene,	0 ppm	Total Yeast and Mold	< 1,000 CFU/g

Pesticides Method: 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, 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, Paclbutrazol 76738-62-0, Pyrethrin 8003-34-7,		< 20 ppb

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	
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Specification Sheet: **Hemp Extract Signature**

Hemp Extract Signature is an oil meant for oral ingestion. It consists of hemp extract blended with cold pressed organic hemp seed oil, cold pressed organic black cumin seed oil and frankincense essential oil.

Application and Use	Dietary Supplement	Appearance	Greenish-brown, oily liquid
Composition	3% - 6% hemp extract by weight 80% - 90.8% hemp seed oil by weight 5% - 10% black cumin seed oil by weight 1.2% - 1.6% frankincense oil by weight	Odor	Grassy, earthy odor, with spicy, woody, and resinous notes
Organic status	Extract: not certified Hemp seed oil: certified organic Black cumin seed oil: certified organic	Consistency	Viscous below 32 degrees Fahrenheit
Organic Certification	Not certified organic	Density	0.915 mg/mL - 0.925 mg/mL
Storage and Shelf Life	500 days from the date of production in original packaging. Store cool dark and dry.	Solubility	Soluble in oils and ethanol
Packaging	10ml, 30ml, 60ml amber glass essence bottle		

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

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

Ingredient	Hemp Ethanol/ Butane extract	Item Code	DEBFH
Botanical Name	<i>Cannabis Sativa</i>	Organic Certification	Not certified
Plant parts used in oil	Seed, stem and flower	Country of Origin	USA

Ingredient	Black cumin seed oil	Item Code	BC
Botanical Name	<i>Nigella Sativa</i>	Organic Certification	Certified organic
Plant parts used in oil	Seed	Country of Origin	Israel, India

Ingredient	Frankincense CO2 Oil	Item Code	FRANK
Botanical Name	<i>Frankincense Carterii</i>	Organic Certification	Not certified
Plant parts used in oil	Resin	Country of Origin	Somalia

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

Batch: S 0369. Batch Size: 199.47 Liters (183.51 Kg). Total Quantity Produced (Packaging plan based on estimates): 10 ml bottle: 4479. 30 ml bottle: 1454. 60 ml bottle: 1836. Yield: 99.55%. Supplier Lot Codes: Primary Ingredient: MY-300-001, CH17F2D, 103018ASH1C. Carrier: BCOS217005, 17-WINEPIO-01. Essential: 345-15.

Potency Method: HPLC		Mycotoxins Method: UHPLC-MS/MS	
Total Cannabinoids	8.4 - 10 mg/ml (250 -300 mg/ounce)	Total Aflatoxin	< 5 ppb
Tetrahydrocannabinol (THC)	< 0.3%	Total Ochratoxin	< 5 ppb
Heavy Metals Method: ICP_MS		Microbiological Contamination Method: qPCR	
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
Solvents Method: GC/MS			



500 South Arthur Ave Unit 300, Louisville, CO, 80027
 720-726-5132
www.bluebirdbotanicals.com

Propane, Propane, Butanes, Pentane, Hexane, Benzene, Heptane, Toluene, Xylenes Ethanol, Acetone, Isopropyl Alcohol	< LOQ (100 ppm)	Hexane Benzene Toluene Xylenes	< 6 ppm < 0.2 ppm < 18 ppm < 43 ppm
--------------------------------------------------------------------------------------------------------------------	-----------------	-----------------------------------------	----------------------------------------------

Pesticides Method: 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, 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, Pacllobutrazol 76738-62-0, Pyrethrin 8003-34-7, Spinosad 168316-95-8, Spiromesifen 283594-90-1, Myclobutanil 88671-89-0, Imazail 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. 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.