



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

Specification Sheet : Hemp Seed Oil

Description

Hemp seed oil is a raw ingredient used in all edible oil products except Complete and Complete 6x. It consists of organic cold pressed hemp seeds from Canada.

General information

Supplier	Hemp Production Services
Application and Use	Dietary Supplement
Composition	100% Hemp seed oil by weight
Organic Certification	Certified Organic
Storage and Shelf Life	12 months from date of production in original packaging. Store cool dark and dry.
Ingredients used in	C, CL, CLX, S, SX,

Ingredients

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

Specification

Appearance	Translucent green liquid
Odor	Mild and nutty
Consistency	Liquid
Density	0.915 - 0.925
Solubility	Soluble at oils

Heavy Metals - Testing Methods : ICP-MS

Arsenic	< 10 ppb
Cadmium	< 10 ppb
Mercury	< 10 ppb
Lead	< 20 ppb

Mycotoxins - Testing Methods: IAC

Total Aflatoxin	< 20 ppb
Total Ochratoxin	< 20 ppb

Microbiological Contamination - Testing Methods: AOAC 990.12, AOAC 991.14, CMMEF, 3M Method

Total Aerobic Bacterial Count	< 100,000 CFU/g
Total Coliform Bacterial Count	< 100 CFU/g
Total Bile Tolerant Gram Negative Count	< 1,000 CFU/g
Total Yeast and Mold	< 1,000 CFU/g



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Pesticides - Testing Methods: GC-MS/MS, LC-MS/MS	
<p>Flufenoxuron,Fonofos,HCH alpha-(alpha-BHC),Indoxacarb,lprovalicarb,Oxamyl,Phorate,Pyraclostrobin,S421,Terbumeton,Thiamethoxam,Acrinathrin,Methiocarb sulfone,Parathion-methyl,Penconazole,Pentachlorothioanisole,Perthane (Ethylan),Profenofos,Profluralin,Prothioconazole-desthio,Prothiofos,Pyriproxyfen,Spinosad (spinosyns A and D),Tebufenpyrad,Thiacloprid,Thiophanate-methyl,Triadimenol,Trichlorfon (Metrifonate),Other Tested Pesticides,Extraction Method,Ametryn,Bendiocarb,Bromophos-ethyl,Bromophos-methyl,Bromuconazole (2 diastereoisomers),Carbofuran,Carbophenothion,Chlordane cis-,Clofentezine,Cyproconazole (2 diastereoisomers),Demeton-O,Endosulfan sulfate,Endrin,Ethoprophos (Ethoprop),Etrifos,Fenamiphos,Chlordane trans-,Chlorpyrifos,Cyprodinil,DDE op-,DDT op-,Dicofol,Dieldrin,Dimethomorph (E- and Z-isomers),Dioxacarb,Disulfoton,Endosulfan II (beta-isomer),EPN,Fenamidone,Fenarimol,Fenobucarb,Fensulfothion,Fenthion oxon sulfoxide,Fenthion sulfone,Fipronil,Fluvalinate tau- (sum of isomers),Hexachlorobenzene (HCB),Hexazinone,Hexythiazox,Lindane (gamma-HCH gamma-BHC),Methidathion,Methiocarb sulfoxide,Methoxyfenozide,Metribuzin,Nitralin,Omethoate,Oxychlordane,Phorate sulfone,Phosalone,Pyrimiphos-ethyl,Propham,Pyrimethanil,Tebufenozide,Teflubenzuron,Terbutylazine,Terbutryn,Tetradifon ,Thiodicarb,Ethoxyquin,All Tested Pesticides,Abamectin,Aldrin,Aminocarb,Azinphos-ethyl,Benfluralin,Captan (as THPI),Aldicarb sulfone (Aldoxycarb),Carbaryl,Carbofuran-3-hydroxy-,Carfentrazone-ethyl,Clethodim (E- and Z-isomers),Coumaphos,Cyhalothrin lambda-,DDD op-,Demeton-S,Difenoconazole (cis- and trans-),Etofenprox,Fenamiphos sulfoxide,Fenbuconazole,Fenhexamid,Fenitrothion,Fenthion,Fenthion oxon,Fipronil desulfinyl,Fipronil sulfone,Flutolanil,HCH delta-(delta-BHC),Imazalil,Isofenphos,Mepanipyrim,Spiromesifen,Tetrachlorvinphos,Vinclozolin,Carbendazim,Chlorfenvinphos (E- and Z-isomers),Chlorpyrifos-methyl,Cypermethrin,Deltamethrin,Fenazaquin,Fensulfothion oxon,Fenvalerate/Esfenvalerate (sum of isomer,Fosthiazate (sum of isomers),Haloxypop-methyl,Malaoxon,Methoprotryne,Methoxychlor,Metolachlor,Mirex,Myclobutanil,Norflurazon,Novaluron ,Pentachloroanisole,Pentachlorobenzonitrile,Phosmet oxon,Phosphamidon (E- and Z-isomers),Phoxim,Pirimicarb-desmethyl,Pirimiphos-methyl,Propargite,Pymetrozine,Pyrethrum (total),Pyridaben,Quintozone,Simazine,Tolclofos-methyl,Triflumizole,Triflumuron,Trifluralin,Folpet,Formetanate,Acetamiprid, Azinphos-methyl,Buprofezin,Butoxycarboxim,Cyanazine,Cyfluthrin,Cyromazine,DDD pp-,DDT pp-,Dichlofenthion,Dichlorvos,Epoxiconazole,Ethiofencarb,Etoxazole,Fenchlorphos (Ronnel),Fenpyroximate,Fluazifop-butyl,Fludioxonil,Fluquinconazole,HCH beta-(beta-BHC),Heptachlor,lprodione,Isoproturon,Lufenuron,Metalaxyl,Methacrifos,Metolcarb,Molinate,Parathion,Phenylphenol 2- (OPP),Piperonyl butoxide,Pirimiphos-methyl N-desethyl-,Procymidone,Prometon,Propyzamide (Pronamide),Sethoxydim (E- and Z-isomers),Simetryn,Terbacil,Terbufos sulfone,Zoxamide,Captan,Atrazine,Benalaxyl,Bensulide,Azoxystrobin,Bifenazate,Bifenthrin,Bitertanol,Bromopropylate,Bupirimate,Cadusafos,Clothianidin,Dacthal (Chlorthal-dimethyl DCPA),Demeton-S-methyl,Dichlobenil,Disulfoton sulfone,DMST (Dimethylaminosulfotoluidide),Endosulfan I (alpha-isomer),Fenoxycarb,Fensulfothion sulfone,Flusilazole,Flutriafol,Metconazole,Methamidophos,Methomyl,Napropamide,Nitrofen,Paclbutrazol,Permethrin (sum of isomers),Phenthoate,Pirimicarb,Propetamphos,Quinalphos,Boscalid,Bromacil,Butachlor,Chlorantraniliprole,Chlorfenapyr,Chlorobenzilate,Chlorpropham (CIPC),Demeton-S-methyl sulfone,Diazinon,Dicrotophos,Dimethoate,Dinitramine,Diphenylamine,Disulfoton sulfoxide,Diuron,Ethalfuralin,Ethion,Fenamiphos sulfone,Fensulfothion oxon sulfone,Fenthion sulfoxide,Hexaconazole,Linuron,Mecarbam,Methiocarb,Mevinphos (E- and Z-isomers),Naled (Dibrom),Oxydemeton-methyl,Paraoxon-methyl,Pentachloroaniline,Pentachlorobenzene,Phorate sulfoxide,Phosmet,Prometryn,Resmethrin (sum of isomers),Sulprofos,Terbufos,Tetrachloroaniline 2356-,Thionazin (Zinophos),Tolylfluanid,Triadimefon,Trifloxystrobin,Chlorothalonil,Aldicarb,Aldicarb sulfoxide,Bifenox,DDE pp-,Dichlofluanid,Dicloran (DCNA),Fenchlorphos oxon,Fenpropathrin,Fenthion oxon sulfone,Flucythrinate (sum of isomers),Heptachlor exo-epoxide,Imidacloprid,Isofenphos-methyl,Isoprocarb,Kresoxim-methyl,Malathion,Mepanipyrim-2-hydroxypropyl,Monocrotophos,Oxadiazon,Oxadixyl,Oxyfluorfen,Paraoxon,Pencycuron,Pendimethalin,Prochloraz,Promecarb,Propanil,Propiconazole (sum of isomers),Propoxur,Pyrazophos,Quinoxifen,Sulfallate,Tebuconazole,Tecnazene,Tefluthrin,Terbufos sulfoxide,Tetraconazole,Thiabendazole,Triazophos,Tribufos (DEF),Triticonazole,Acephate,Alachlor</p>	<p>< 10 ppb</p>



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Nutritional - Testing Methods: AOAC 954.02, AOCS Cd 8b-90, AOCS Ca 5a-40, Veratox Elisa Gliadin R5	
Gluten	<20 ppm
Peroxide Value	0-10 meq/kg
Fat	96-100%

Fatty Acid Profile (Area %) -Ce 2b-11 (2011), Ce 1i-07, Ce 2-66 (2009)	
Palmitic Acid	>4.5%
Stearic Acid	>2%
Oleic Acid	>8.5%
Linoleic Acid	>44%
Alpha Linolenic Acid	>14%

Specification Sheet : Hemp Classic Blend

Description

Hemp Classic is an oil meant for oral ingestion. It consists of CO2 hemp extract made from Colorado grown hemp blended with cold pressed organic hemp seed oil. It is a dietary supplement.

General information

Application and Use	Dietary Supplement
Composition	5% - 7% hemp extract by weight 93% - 95% hemp seed oil by weight
Organic status of raw materials	Extract: not certified Hemp seed oil: certified organic
Organic Certification	Not certified organic
Storage and Shelf Life	500 days from date of production in original packaging. Store cool dark and dry.
Packaging	10ml amber glass, 1oz, 2oz cobalt blue glass

Ingredients

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

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

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

Batch: CL 0316	Batch Size: 151.4 Liters (139.288 Kg)
Total Quantity Produced (packaging plan based on estimates): 10 ml bottle: 1126.30 ml bottle: 1682. 60 ml bottle: 982. Volume allocated to bulk wholesale purchasing: 30283.28 ml (30.28328 liters). Yield: 99.69%	Supplier Lot Codes: Primary Ingredient: MY-226-001, CHCR-106. Carrier: 17-ROARPIO-01

Specification

Appearance	Greenish- brown, oily liquid
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Odor	Grassy, earthy odor
Consistency	Viscous below 32 degrees Fahrenheit
Density	0.915 mg/mL - 0.925 mg/mL
Solubility	Soluble in ethanol and oils

Assay

Potency - Testing Methods: HPLC, UPLC, SFC, GC	
Total Cannabinoids	250 - 350 mg/ounce
Tetrahydrocannabinol (THC)	< 0.3%

Heavy Metals - Testing Methods : ICP-MS	
Arsenic	< 55 ppb
Cadmium	< 10 ppb
Mercury	< 10 ppb
Lead	< 55 ppb

Mycotoxins - Testing Methods: IAC	
Total Aflatoxin	< 20 ppb
Total Ochratoxin	< 20 ppb

Microbiological Contamination - Testing Methods: AOAC 990.12, AOAC 991.14, CMMEF, 3M Method	
Total Aerobic Bacterial Count	< 10,000 CFU/g
Total Coliform Bacterial Count	< 100 CFU/g
Total Bile Tolerant Gram Negative Count	< 1,000 CFU/g
Total Yeast and Mold	< 1,000 CFU/g

Solvents - Testing Methods: GC/MSD	
Propane	0 ppb
Butanes	0 ppb
Pentane	0 ppb
Ethanol	<100 ppb
Acetone	<100 ppb
Isopropyl Alcohol	<100 ppb
Hexane	0 ppb
Benzene	0 ppb
Heptane	0 ppb
Toluene	0 ppb
Xylenes	0 ppb

Pesticides - Testing Methods: UPLC/MS	
Abamectin 71751-41-2	< 50 ppb
Acequinocyl 57960-19-7	< 50 ppb
Bifenazate 149877-41-8	< 50 ppb
Bifenthrin 82657-04-03 ND ppb	< 50 ppb
Chlormequat chloride 999-81-5	< 50 ppb
Cyfluthrin 68359-37-5	< 50 ppb
Cyfluthrin 68359-37-5	< 50 ppb
Daminozide 1596-84-5	< 50 ppb
Etozazole 153233-91-1	< 50 ppb



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Fenoxycarb 72490-01-8	< 50 ppb
Paclobutrazol 76738-62-0	< 50 ppb
Pyrethrin 8003-34-7	< 50 ppb
Spinosad 168316-95-8	< 50 ppb
Spiromesifen 283594-90-1	< 50 ppb
Myclobutanil 88671-89-0	< 50 ppb
Imazalil 35554-44-0	< 50 ppb
Imidacloprid 138261-41-3	< 50 ppb
Spirotetramat 203313-25-1	< 50 ppb
Trifloxystrobin 141517-21-7	< 50 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 SUPER CRITICAL CO2 EXTRACTED FRANKINCENSE (BOSWELLIA CARTERII) AND CANNABIS ESSENTIAL OIL, PURE SPECTRUM, EBL HEALTH, MANUFACTURERS/SUPPLIERS OF CO2 HEMP EXTRACTS, PHYTO BOTANICS, 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.