

# 410 South Arthur Ave, Louisville, CO, 80027 720-726-5132 www.bluebirdbotanicals.com F03.019p.03

Finished Product Specification: Vitamin D3 + CBD

#### Description

Vitamin D3 + CBD is an oil meant for oral ingestion. It consists of hemp extract made from Colorado, Kentucky, or Oregon grown hemp blended with fractionated Coconut oil and vitamin D3. It is a dietary supplement.

#### **General information**

Application and Use	Dietary Supplement	
Composition	Proprietary blend of hemp extract, fractionated coconut oil and vitamin D3	
Organic status of raw materials	Extract: not certified fractionated coconut oil: certified organic Vitamin D3: not certified	
Organic status of finished product	Not certified organic	
Storage and Shelf Life	2 years from the date of production in original packaging. Store cool dark and dry.	
Packaging	30ml amber glass essence bottle with tamper evident graduated glass droppers	
State Hemp Plan Manufactured Under	Colorado	

	Ingredients		
Ingredient	Fractionated Coconut Oil	Item Code	FCO
Ingredient	Decarboxylated Hemp Extract	Item Code	DFSE
<b>Botanical Name</b>	Cannabis sativa	Organic Certification	Not certified
Plant parts used in oil	Leaves, Flowers	Country of Origin	USA
Ingredient	Vitamin D3	Item Code	D3
Country of Origin	USA	Organic Certification	Not certified

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

Batch: 629 VDC		
Manufacturing Date: 07/08/2021	Batch Size: 35.1 Liters (33.17 Kg)	
Total Quantity Produced:	Supplier Lot Codes:	
30 ml bottle: 464	Primary Ingredient: VDC 580, TL-0172-CFD,	
60 ml bottle: 348	20105E13	
Yield: 99.32%	Carrier: VDC 508	

# Specification

Appearance	Greenish-brown, oily liquid
Odor	Grassy, earthy odor
Consistency	Viscous below 32 degrees Fahrenheit
Density	0.944 g/mL
Solubility	Soluble in oils and ethanol

#### Assay

Potency - Method: IHCBD_S	
Total Cannabidiol	250 - 300 mg/ounce
Tetrahydrocannabinol (THC)	< 0.2%



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Concentration Vitamin D - Method: LCMS	
Total Vitamin D/serving	62.5 mcg (2,500 IU) / serving
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Heavy Metals - Method : ICP-MS	
Arsenic	< 30 ppb
Cadmium	< 30 ppb
Mercury	< 10 ppb
Lead	< 30 ppb

Mycotoxins - Method: LCMS/MS	
Total Aflatoxin (B1, B2, G1, and G2)	< 5 ppb
Aflatoxin B1	< 5 ppb
Total Ochratoxin	< 5 ppb

Microbiological Contamination - Method:Petrifilm		
Total Aerobic Plate Count	< 1,000 CFU/g	
Total E. coli / Coliforms	< 100 CFU/g	
Total Yeast & Mold	< 1,000 CFU/g	
Salmonella spp.	Absent in 25 g	
Escherichia coli (STEC)	Absent in 25 g	

Solvents - Method: GC/GCMS		
Acetone	< 100 ppm	
Acetonitrile	< 0.96 ppm	
Benzene	< 1.6 ppm	
Butanes	< 13.32 ppm	
Chloroform	< 53 ppm	
Ethanol	< 100 ppm	
Ethyl Acetate	< 6.4 ppm	
Ethyl Ether	< 8 ppm	
Heptanes	< 1,000 ppm	
Hexane	< 36.6 ppm	
Isopropyl Alcohol	< 100 ppm	
Methanol	< 87.9 ppm	
Pentane	< 200 ppm	
Propane	< 1,000 ppm	
Toluene	< 38.4 ppm	
Total Xylenes (m, p, o-xylenes)	< 430 ppm	



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Pesticides - Method: LCMS/MS		
Abamectin	< 30 ppb	
Acephate	< 30 ppb	
Acequinocyl	< 30 ppb	
Acetamiprid	< 30 ppb	
Aldicarb	< 30 ppb	
Azoxystrobin	< 30 ppb	
Bifenazate	< 30 ppb	
Bifenthrin	< 30 ppb	
Chlorfenapyr	< 30 ppb	
Chlorpyrifos	< 30 ppb	
Clofentezine	< 30 ppb	
Coumaphos	< 30 ppb	
Cyfluthrin	< 30 ppb	
Cypermethrin	< 30 ppb	
DDVP (Dichlorvos)	< 30 ppb	
Daminozide	< 30 ppb	
Dimethomorph	< 30 ppb	
Diazinon	< 30 ppb	
Dimethoate	< 30 ppb	
Ethoprop(hos)	< 30 ppb	
Etofenprox	< 30 ppb	
Etoxazole	< 30 ppb	
Fenhexamid	< 30 ppb	
Fenoxycarb	< 30 ppb	
Fipronil	< 30 ppb	
Imazalil	< 30 ppb	
Imidacloprid	< 30 ppb	
Kresoxim Methyl	< 30 ppb	
Malathion A	< 30 ppb	
Metalaxyl	< 30 ppb	
Methiocarb	< 30 ppb	
Methomyl	< 30 ppb	
Mevinphos	< 30 ppb	
Myclobutanil	< 30 ppb	
Naled	< 30 ppb	
Oxamyl	< 30 ppb	
Paclobutrazol	< 30 ppb	
Parathion-methyl	< 30 ppb	
Pentachloronitrobenzene	< 30 ppb	
Permethrin	< 30 ppb	
Phosmet	< 30 ppb	
Piperonylbutoxide	< 30 ppb	
Prallethrin	< 30 ppb	
Propiconazole	< 30 ppb	
Propoxur	< 30 ppb	



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Pyrethrin	< 30 ppb
Pyridaben	< 30 ppb
Spinetoram	< 30 ppb
Spinosyn A	< 30 ppb
Spinosyn D	< 30 ppb
Spiromesifen	< 30 ppb
Spirotetramat	< 30 ppb
Spiroxamine	< 30 ppb
Tebuconazole	< 30 ppb
Thiacloprid	< 30 ppb
Thiamethoxam	< 30 ppb
Trifloxystrobin	< 30 ppb

DISCLOSURE OF PRODUCT COMPONENTS: OUR LOW THE HEMP EXTRACT PRODUCTS ARE BLENDED USING A COMBINATION OF FULL SPECTRUM CANNABINOID EXTRACT AND ORGANIC CARRIER 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: JEDWARDS INTERNATIONAL, SUPPLIER OF ORGANIC FRACTIONATED COCONUT OIL, ZIVO INC., MANUFACTURER/SUPPLIER OF HEMP EXTRACTS, PROVITAS, SUPPLIER OF VITAMIN D3. 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, ACS LABORATORIES AND EUROFINS ISO ACCREDITED (ISO 17025) ASSAYS ARE PROVIDED BY BOTANACOR LABORATORIES, ACS LABORATORIES AND EUROFINS. 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.

Version #	Date Revised	Revised By	Revision
0	12/7/2020	коі	Original, added to document registry
1	1/11/2021	коі	Updated Plant Parts
2	1/19/2021	коі	Increased shelf life to 2 years after results of stability study returned
3	7/12/2021	коі	Updated with CDPHE requirements (not pesticides)