

Covance Food Solutions is now Eurofins Food Integrity and Innovation

## Certificate of Analysis

### Bluebird Botanicals

 500 S Arthur Ave, Ste 300  
 Boulder Colorado 80027 United States

<b>Sample Name:</b>	<b>SG 5mg Batch number 338</b>	<b>Eurofins Sample:</b>	<b>7777047</b>
<b>Project ID</b>	BLUEBIR_BO-20181016-0130	<b>Receipt Date</b>	17-Oct-2018
<b>PO Number</b>	CVD	<b>Receipt Condition</b>	Ambient temperature
<b>Sample Serving Size</b>		<b>Login Date</b>	16-Oct-2018
		<b>Number Composited</b>	20
		<b>Online Order</b>	12704-1088CECB

Analysis	Result
<b>Calculated Sample Weight *</b>	
Entity Weight	0.6392 g
Entity Fill Weight	0.4677 g
<b>Elements by ICP Mass Spectrometry</b>	
Arsenic	<10.0 ppb
Cadmium	<5.00 ppb
Lead	<5.00 ppb
Mercury	<5.00 ppb
<b>Mycotoxins in Raw Materials</b>	
Aflatoxin B1	<0.500 ppb
Aflatoxin B2	<0.500 ppb
Aflatoxin G1	<0.500 ppb
Aflatoxin G2	<0.500 ppb
Aflatoxin M1	<0.500 ppb
Aflatoxin M2	<0.500 ppb
Deoxynivalenol	<100 ppb
T-2 Toxin	<10.0 ppb
HT-2 Toxin	<100 ppb
Fumonisin B1	<25.0 ppb
Fumonisin B2	<25.0 ppb
Ochratoxin A	<1.00 ppb
Zearalenone	<30.0 ppb
<b>Multi-Residue Analysis for hemp products - 18 compounds</b>	
Matrix Type - To Determine Limit of Quantification (LOQ)	High-Fat Food Matrices
Abamectin	<50 ppb
Azoxystrobin	<50 ppb
Bifenazate	<50 ppb
Bifenthrin	<50 ppb
Cyfluthrin	<50 ppb
Dichlorvos	<50 ppb
Etoxazole	<50 ppb
Fenoxycarb	<50 ppb
Imazalil	<50 ppb
Imidacloprid	<50 ppb
Myclobutanil	<50 ppb

\* This analysis or component is not ISO accredited.

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Analysis	Result
<b>Multi-Residue Analysis for hemp products - 18 compounds</b>	
Paclobotrazol	<50 ppb
Piperonyl butoxide	<50 ppb
Pyrethrum (total)	<500 ppb
Spinosad (spinosyns A and D)	<50 ppb
Spiromesifen	<50 ppb
Spirotetramat	<50 ppb
Trifloxystrobin	<50 ppb

Method References	Testing Location
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Calculated Sample Weight (PREP)	Food Integrity Innovation-Madison
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Elements by ICP Mass Spectrometry (ICP_MS_S)	Food Integrity Innovation-Madison
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Official Methods of Analysis, Method 2011.19 and 993.14, AOAC INTERNATIONAL, (Modified).  
 Pequette, L.H., Szabo, A., Thompson, J.J., "Simultaneous Determination of Chromium, Selenium, and Molybdenum in Nutritional Products by Inductively Coupled Plasma/Mass Spectrometry: Single-Laboratory Validation," Journal of AOAC International, 94(4): 1240 - 1252 (2011).

Multi-Residue Analysis for hemp products - 18 compounds (PEST_HEMP)	Food Integ. Innovation-Greenfield
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*Official Methods of Analysis, AOAC Official Method 2007.01*, Pesticide Residues in Foods by Acetonitrile Extraction and Partitioning with Magnesium Sulfate, AOAC INTERNATIONAL (modified).

*CEN Standard Method EN 15662*: Food of plant origin - Determination of pesticide residues using GC-MS and/or LC-MS/MS following acetonitrile extraction/partitioning and clean-up by dispersive SPE - QuEChERS method.

List of the tested pesticides and their limits of quantification (LOQs) are available upon request.

Mycotoxins in Raw Materials (MYCO_REG_S)	Food Integrity Innovation-Madison
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Varga, E., Glauner, T., Koppen, R., Mayer, K., Sulyok, M., Schumacher, R., Krska, R. and Berthiller, F., "Stable isotope dilution assay for the accurate determination of mycotoxins in maize by UHPLC-MS/MS," Analytical and BioAnalytical Chemistry, 402:2675-2686 (2012).

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**Testing Location(s)**

Released on Behalf of Eurofins by

**Food Integ. Innovation-Greenfield**

Eurofins Food Chemistry Testing US, Inc.  
671 S. Meridian Road  
Greenfield IN 46140  
800-675-8375

Karelyn Koehn - Manager



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**Food Integrity Innovation-Madison**

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Madison WI 53704  
800-675-8375

Edward Ladwig - Director



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Eurofins Food Integrity and Innovation accepts all liability for work conducted as of 01 Aug 2018.

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