

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>	0342 SG	<b>Eurofins Sample:</b>	7795315
<b>Project ID</b>	BLUEBIR_BO-20181022-0135	<b>Receipt Date</b>	23-Oct-2018
<b>PO Number</b>	0101	<b>Receipt Condition</b>	Ambient temperature
<b>Sample Serving Size</b>		<b>Login Date</b>	22-Oct-2018
		<b>Online Order</b>	12704-1090BDBC

Analysis	Result
<b>Calculated Sample Weight *</b>	
Entity Weight	0.6360 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	<0.05 mg/kg
Azoxystrobin	<0.05 mg/kg
Bifenazate	<0.05 mg/kg
Bifenthrin	<0.05 mg/kg
Cyfluthrin	<0.05 mg/kg
Dichlorvos	<0.05 mg/kg
Etoxazole	<0.05 mg/kg
Fenoxycarb	<0.05 mg/kg
Imazalil	<0.05 mg/kg
Imidacloprid	<0.05 mg/kg
Myclobutanil	<0.05 mg/kg
Paclobutrazol	<0.05 mg/kg
Piperonyl butoxide	<0.05 mg/kg

\* This analysis or component is not ISO accredited.

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>0342 SG</b>	<b>Eurofins Sample:</b>	<b>7795315</b>
<b>Project ID</b>	BLUEBIR_BO-20181022-0135	<b>Receipt Date</b>	23-Oct-2018
<b>PO Number</b>	0101	<b>Receipt Condition</b>	Ambient temperature
<b>Sample Serving Size</b>		<b>Login Date</b>	22-Oct-2018
		<b>Online Order</b>	12704-1090BDBC

#### Analysis

#### Result

##### Multi-Residue Analysis for hemp products - 18 compounds

Pyrethrum (total)	<0.50 mg/kg
Spinosad (spinosyns A and D)	<0.05 mg/kg
Spiromesifen	<0.05 mg/kg
Spirotetramat	<0.05 mg/kg
Trifloxystrobin	<0.05 mg/kg

#### Method References

#### Testing Location

##### Calculated Sample Weight (PREP)

Food Integrity Innovation-Madison

##### Elements by ICP Mass Spectrometry (ICP\_MS\_S)

Food Integrity Innovation-Madison

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

*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

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).

\* This analysis or component is not ISO accredited.

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

#### 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



2918.06

##### Food Integrity Innovation-Madison

Eurofins Food Chemistry Testing US, Inc.  
3301 Kinsman Blvd  
Madison WI 53704  
800-675-8375

Edward Ladwig - Director



2918.01

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

These results apply only to the items tested. This certificate of analysis shall not be reproduced, except in its entirety, without the written approval of Eurofins.