

CONSOLIDATED TEST RESULTS SUMMARY

Please see the following pages for full test results.

BULK SKU	BATCH #	LOQ: Limit Of Quantitation LOD: Limit Of Detection 1 g = 10 ⁻³ kg = 10 ³ mg = 10 ⁶ µg 1 mg/kg = 1 ppm = 1000 ppb	
PRODUCT NAME	SERVING SIZE		
LABORATORY :	OREGON ACCREDITATION: OR100028		
POTENCY	PER SERVING	PER GRAM	Percent
Cannabidiol (CBD)	mg/serving	mg/g	%
Total THC (d9-THC, THCA)	mg/serving	mg/g	%
Cannabigerol (CBG)	mg/serving	mg/g	%
Cannabinol (CBN)	mg/serving	mg/g	%
Cannabichromene (CBC)	mg/serving	mg/g	%
Tetrahydrocannabinolic Acid (THCA)	mg/serving	mg/g	%
Delta-9-THC (d9-THC)	mg/serving	mg/g	%
Delta-8-THC (d8-THC)	mg/serving	mg/g	%
HEAVY METALS	PER SERVING	PER GRAM	REGULATORY ACTION LEVEL
Arsenic	µg/serving	µg/g	1.5 ppm
Cadmium	µg/serving	µg/g	0.5 ppm
Lead	µg/serving	µg/g	0.5 ppm
Mercury	µg/serving	µg/g	3.0 ppm
PESTICIDES	REGULATORY ACTION LEVEL		
None of the other 59 pesticides tested found above limit of detection in the sample.			10 ppb ^[1]
RESIDUAL SOLVENTS	Results	REGULATORY ACTION LEVEL	
Ethanol*	µg/g	5,000 ppm	
Heptane	µg/g	5,000 ppm	
None of the 34 residual solvents tested found above limit of quantitation in the sample.			
MICROBIAL	PASS/FAIL		
Yeast & Mold	Pass		
Coliform	Pass		



1. American Herbal Pharmacopoeia. (2014). Cannabis Inflorescence: Standards of Identity, Analysis, and Quality Control. Washington DC: AHP.

*Ethanol is a food additive used in some of our ingredients. The FDA has labeled ethanol as Generally Recognized as Safe (GRAS). Many foods contain trace amounts of ethanol, including soy sauce, pasta sauces, fruits and juices, etc. Our products contain safe levels of ethanol and always below pertinent regulatory action levels.



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 24-001682/D003.R000
Report Date: 02/21/2024
ORELAP#: OR100028
Purchase Order: 2861266
Received: 02/14/24 16:04

Customer: Etz Hayim Holdings
Product identity: CYCL-GMY.D9.MP5-GB01
Client/Metric ID: .
Laboratory ID: 24-001682-0002

Summary

Potency:

Analyte per 1g	Result	Limits	Units	Status	
CBD per 1g	5.02		mg/1g		CBD-Total per Serving Size 5.02 mg/1g
CBDV per 1g	0.0313		mg/1g		
Δ9-THC per 1g	1.00		mg/1g		THC-Total per Serving Size 1.00 mg/1g
(Reported in milligrams per serving)					

Residual Solvents:

Analyte	Result (µg/g)	Limits (µg/g)	Status
Ethanol ^M	295		

Pesticides:

All analytes passing and less than LOQ.

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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Report Date: 02/21/2024
ORELAP#: OR100028
Purchase Order: 2861266
Received: 02/14/24 16:04

Customer: Etz Hayim Holdings
16427 NE Airport Way
Portland 97230
United States of America (USA)
Product identity: CYCL-GMY.D9.MP5-GB01
Client/Metric ID: .
Sample Date:
Laboratory ID: 24-001682-0002
Evidence of Cooling: No
Temp: 17.9 °C
Relinquished by: client
Serving Size #1: 1 g

Sample Results

Potency per 1g Method: J AOAC 2015 V98-6 (mod) ^b Units mg/se Batch: 2401238 Analyze: 2/15/24 10:04:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	< LOQ		mg/1g	0.0310	
CBC-A per 1g	< LOQ		mg/1g	0.0310	
CBC-Total per 1g	< LOQ		mg/1g	0.0582	
CBD per 1g	5.02		mg/1g	0.0310	
CBD-A per 1g ⁺	< LOQ		mg/1g	0.0310	
CBD-Total per 1g ⁺	5.02		mg/1g	0.0582	
CBDV per 1g	0.0313		mg/1g	0.0310	
CBDV-A per 1g	< LOQ		mg/1g	0.0310	
CBDV-Total per 1g	< LOQ		mg/1g	0.0579	
CBE per 1g	< LOQ		mg/1g	0.0310	
CBG per 1g	< LOQ		mg/1g	0.0310	
CBG-A per 1g	< LOQ		mg/1g	0.0310	
CBG-Total per 1g	< LOQ		mg/1g	0.0579	
CBL per 1g	< LOQ		mg/1g	0.0310	
CBL-A per 1g	< LOQ		mg/1g	0.0310	
CBL-Total per 1g	< LOQ		mg/1g	0.0582	
CBN per 1g	< LOQ		mg/1g	0.0310	
CBT per 1g	< LOQ		mg/1g	0.0310	
Δ8-THCV per 1g	< LOQ		mg/1g	0.0310	
Δ10-THC-9R per 1g	< LOQ		mg/1g	0.0310	
Δ10-THC-9S per 1g	< LOQ		mg/1g	0.0310	
Δ10-THC-Total per 1g	< LOQ		mg/1g	0.0620	
Δ8-THC per 1g ⁺	< LOQ		mg/1g	0.0310	
Δ9-THC per 1g ⁺	1.00		mg/1g	0.0310	
delta-9-THCP per 1g	< LOQ		mg/1g	0.0310	
exo-THC per 1g	< LOQ		mg/1g	0.0310	
THC-A per 1g ⁺	< LOQ		mg/1g	0.0310	
THC-Total per 1g	1.00		mg/1g	0.0582	
THCV per 1g	< LOQ		mg/1g	0.0310	
THCV-A per 1g	< LOQ		mg/1g	0.0310	



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ORELAP#: OR100028
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Received: 02/14/24 16:04

Potency per 1g Method: J AOAC 2015 V98-6 (mod)^b Units mg/se Batch: 2401238 Analyze: 2/15/24 10:04:00 PM

Analyte	Result	Limits	Units	LOQ	Notes
THCV-Total per 1g	< LOQ		mg/1g	0.0582	
Total Cannabinoids per 1g	6.05		mg/1g		

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aerobic Plate Count	< LOQ		cfu/g	10	2401186	02/17/24 AOAC 990.12 (Petrifilm) ^b		
E.coli	< LOQ		cfu/g	10	2401183	02/17/24 AOAC 991.14 (Petrifilm) ^b		
Total Coliforms	< LOQ		cfu/g	10	2401183	02/17/24 AOAC 991.14 (Petrifilm) ^b		
Staphylococcus aureus	< LOQ		cfu/g	10	2401188	02/16/24 AOAC 2003.07		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2401184	02/18/24 AOAC 2014.05 (RAPID) ^b		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2401184	02/18/24 AOAC 2014.05 (RAPID) ^b		
Listeria spp.	Negative	/5g			2401191	02/16/24 AOAC 2019.10		I
Salmonella spp. by PCR ^y	Negative	/5g			2401189	02/16/24 AOAC 2020.02 ^b		I
EHEC including STEC ^y	Negative	/5g			2401190	02/16/24 AOAC RI 121806 ^b		I

Solvents Method: Residual Solvents by GC/MS^b Units µg/g Batch 2401315 Analyze 02/20/24 01:47 PM

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane ^y	< LOQ	380	100	pass		2-Butanol ^y	< LOQ	5000	200	pass	
2-Ethoxyethanol ^y	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane)	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA) ^y	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone ^y	< LOQ	5000	200	pass		Acetonitrile ^y	< LOQ	410	100	pass	
Benzene ^y	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane ^y	< LOQ	3880	200	pass		Ethanol ^y	295		200		
Ethyl acetate ^y	< LOQ	5000	200	pass		Ethyl benzene	< LOQ		200		
Ethyl ether ^y	< LOQ	5000	200	pass		Ethylene glycol ^y	< LOQ	620	200	pass	
Ethylene oxide ^y	< LOQ	50.0	20.0	pass		Hexanes (sum)	< LOQ	290	150	pass	
Isopropyl acetate ^y	< LOQ	5000	200	pass		Isopropylbenzene (Cumene) ^y	< LOQ	70.0	30.0	pass	
m,p-Xylene	< LOQ		200			Methanol ^y	< LOQ	3000	200	pass	
Methylene chloride ^y	< LOQ	600	60.0	pass		Methylpropane (Isobutane)	< LOQ		200		
n-Butane	< LOQ		200			n-Heptane ^y	< LOQ	5000	200	pass	
n-Hexane ^y	< LOQ		30.0			n-Pentane ^y	< LOQ		200		
o-Xylene	< LOQ		200			Pentanes (sum)	< LOQ	5000	600	pass	
Propane ^y	< LOQ	5000	200	pass		Tetrahydrofuran ^y	< LOQ	720	100	pass	
Toluene ^y	< LOQ	890	100	pass		Total Xylenes ^y	< LOQ		400		
Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass							



Pesticides					Method: AOAC 2007.01 & EN 15662 (mod)	Units mg/kg	Batch 2401323	Analyze 02/20/24 02:24 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin [¥]	< LOQ	0.50	0.250	pass		Acephate [¥]	< LOQ	0.40	0.200	pass	
Acequinocyl [¥]	< LOQ	2.0	1.00	pass		Acetamiprid [¥]	< LOQ	0.20	0.100	pass	
Aldicarb [¥]	< LOQ	0.40	0.200	pass		Azoxystrobin [¥]	< LOQ	0.20	0.100	pass	
Bifenazate [¥]	< LOQ	0.20	0.100	pass		Bifenthrin [¥]	< LOQ	0.20	0.100	pass	
Boscalid [¥]	< LOQ	0.40	0.200	pass		Carbaryl [¥]	< LOQ	0.20	0.100	pass	
Carbofuran [¥]	< LOQ	0.20	0.100	pass		Chlorantraniliprole [¥]	< LOQ	0.20	0.100	pass	
Chlorfenapyr [¥]	< LOQ	1.0	0.500	pass		Chlorpyrifos [¥]	< LOQ	0.20	0.100	pass	
Clofentezine [¥]	< LOQ	0.20	0.100	pass		Cyfluthrin [¥]	< LOQ	1.0	0.500	pass	
Cypermethrin [¥]	< LOQ	1.0	0.500	pass		Daminozide [¥]	< LOQ	1.0	0.500	pass	
Diazinon [¥]	< LOQ	0.20	0.100	pass		Dichlorvos [¥]	< LOQ	1.0	0.500	pass	
Dimethoate [¥]	< LOQ	0.20	0.100	pass		Ethoprophos [¥]	< LOQ	0.20	0.100	pass	
Etofenprox [¥]	< LOQ	0.40	0.200	pass		Etoxazole [¥]	< LOQ	0.20	0.100	pass	
Fenoxycarb [¥]	< LOQ	0.20	0.100	pass		Fenpyroximate [¥]	< LOQ	0.40	0.200	pass	
Fipronil [¥]	< LOQ	0.40	0.200	pass		Flonicamid [¥]	< LOQ	1.0	0.400	pass	
Fludioxonil [¥]	< LOQ	0.40	0.200	pass		Hexythiazox [¥]	< LOQ	1.0	0.400	pass	
Imazalil [¥]	< LOQ	0.20	0.100	pass		Imidacloprid [¥]	< LOQ	0.40	0.200	pass	
Kresoxim-methyl [¥]	< LOQ	0.40	0.200	pass		Malathion [¥]	< LOQ	0.20	0.100	pass	
Metalaxyl [¥]	< LOQ	0.20	0.100	pass		Methiocarb [¥]	< LOQ	0.20	0.100	pass	
Methomyl [¥]	< LOQ	0.40	0.200	pass		MGK-264 [¥]	< LOQ	0.20	0.100	pass	
Myclobutanil [¥]	< LOQ	0.20	0.100	pass		Naled [¥]	< LOQ	0.50	0.250	pass	
Oxamyl [¥]	< LOQ	1.0	0.500	pass		Paclobutrazole [¥]	< LOQ	0.40	0.200	pass	
Parathion-Methyl [¥]	< LOQ	0.20	0.100	pass		Permethrin [¥]	< LOQ	0.20	0.100	pass	
Phosmet [¥]	< LOQ	0.20	0.100	pass		Piperonyl butoxide [¥]	< LOQ	2.0	1.00	pass	
Prallethrin [¥]	< LOQ	0.20	0.100	pass		Propiconazole [¥]	< LOQ	0.40	0.200	pass	
Propoxur [¥]	< LOQ	0.20	0.100	pass		Pyrethrin I (total) [¥]	< LOQ	1.0	0.500	pass	
Pyridaben [¥]	< LOQ	0.20	0.100	pass		Spinosad [¥]	< LOQ	0.20	0.100	pass	
Spiromesifen [¥]	< LOQ	0.20	0.100	pass		Spirotetramat [¥]	< LOQ	0.20	0.100	pass	
Spiroxamine [¥]	< LOQ	0.40	0.200	pass		Tebuconazole [¥]	< LOQ	0.40	0.200	pass	
Thiacloprid [¥]	< LOQ	0.20	0.100	pass		Thiamethoxam [¥]	< LOQ	0.20	0.100	pass	
Trifloxystrobin [¥]	< LOQ	0.20	0.100	pass							

Metals										
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method		Status	Notes	
Arsenic [¥]	< LOQ	0.200	mg/kg	0.0165	2401308	02/19/24	AOAC 2013.06 (mod.) ^b	pass		
Cadmium [¥]	< LOQ	0.200	mg/kg	0.0165	2401308	02/19/24	AOAC 2013.06 (mod.) ^b	pass		
Lead [¥]	< LOQ	0.500	mg/kg	0.0165	2401308	02/19/24	AOAC 2013.06 (mod.) ^b	pass		
Mercury [¥]	< LOQ	0.100	mg/kg	0.00825	2401308	02/19/24	AOAC 2013.06 (mod.) ^b	pass		



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Report Number: 24-001682/D003.R000
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Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

Ⓟ = ISO/IEC 17025:2017 accredited method.

¥ = TNI accredited analyte.

Units of Measure

cfu/g = Colony forming units per gram

g = g

µg/g = Microgram per gram

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/1g = Milligram per 1g

/5g = Per 5 grams

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

I: Insufficient sample received to meet method requirements.

Approved Signatory

Derrick Tanner
General Manager



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Report Number: 24-001682/D003.R000
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ORELAP#: OR100028
Purchase Order: 2861266
Received: 02/14/24 16:04

Revision: 4 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2401238

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDVA	2	0.0317	0.0322	%	98.3	80.0 - 120	Acceptable		
CBDV	2	0.0292	0.0297	%	98.3	80.0 - 120	Acceptable		
CBE	2	0.0347	0.0356	%	97.5	80.0 - 120	Acceptable		
CBD	1	0.0314	0.0306	%	103	90.0 - 110	Acceptable		
CBGA	1	0.0305	0.0303	%	101	80.0 - 120	Acceptable		
CBG	1	0.0330	0.0327	%	101	80.0 - 120	Acceptable		
CBD	1	0.0348	0.0335	%	104	90.0 - 110	Acceptable		
THCV	2	0.0324	0.0333	%	97.3	80.0 - 120	Acceptable		
d8THCV	2	0.0279	0.0283	%	98.6	80.0 - 120	Acceptable		
THCVA	2	0.0308	0.0315	%	97.8	80.0 - 120	Acceptable		
CBN	1	0.0307	0.0301	%	102	80.0 - 120	Acceptable		
exo-THC	2	0.0326	0.0335	%	97.2	80.0 - 120	Acceptable		
d9THC	1	0.0323	0.0317	%	102	90.0 - 110	Acceptable		
d8THC	1	0.0309	0.0304	%	101	90.0 - 110	Acceptable		
9S-d10THC	1	0.0325	0.0324	%	100	80.0 - 120	Acceptable		
CBL	2	0.0316	0.0328	%	96.3	80.0 - 120	Acceptable		
9R-d10THC	1	0.0316	0.0317	%	99.6	80.0 - 120	Acceptable		
CBC	2	0.0297	0.0305	%	97.4	80.0 - 120	Acceptable		
THCA	1	0.0300	0.0296	%	101	90.0 - 110	Acceptable		
CBCA	2	0.0320	0.0327	%	97.6	80.0 - 120	Acceptable		
CBLA	2	0.0326	0.0336	%	96.9	80.0 - 120	Acceptable		
d9THCP	2	0.0313	0.0328	%	95.4	80.0 - 120	Acceptable		
CBT	2	0.0310	0.0327	%	94.9	80.0 - 120	Acceptable		

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBDV	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBE	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBD	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBGA	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBG	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBD	<LOQ	0.00317	%	< 0.00317	Acceptable	
THCV	<LOQ	0.00317	%	< 0.00317	Acceptable	
d8THCV	<LOQ	0.00317	%	< 0.00317	Acceptable	
THCVA	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBN	<LOQ	0.00317	%	< 0.00317	Acceptable	
exo-THC	<LOQ	0.00317	%	< 0.00317	Acceptable	
d9THC	<LOQ	0.00317	%	< 0.00317	Acceptable	
d8THC	<LOQ	0.00317	%	< 0.00317	Acceptable	
9S-d10THC	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBL	<LOQ	0.00317	%	< 0.00317	Acceptable	
9R-d10THC	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBC	<LOQ	0.00317	%	< 0.00317	Acceptable	
THCA	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBCA	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBLA	<LOQ	0.00317	%	< 0.00317	Acceptable	
d9THCP	<LOQ	0.00317	%	< 0.00317	Acceptable	
CBT	<LOQ	0.00317	%	< 0.00317	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

% - Percent



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Purchase Order: 2861266
Received: 02/14/24 16:04

Revision: 2 Document ID: 7087
Legacy ID: CFL-E33Effective:

Laboratory Quality Control Results

Residual Solvents				Batch ID: 2401315					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		466	584	µg/g	79.8	60 - 120	
Isobutane	ND	< 200		569	767	µg/g	74.2	60 - 120	
Butane	ND	< 200		575	782	µg/g	73.5	60 - 120	
2,2-Dimethylpropane	ND	< 200		690	939	µg/g	73.5	60 - 120	
Methanol	ND	< 200		1440	1600	µg/g	90.0	60 - 120	
Ethylene Oxide	ND	< 30		43.5	57.1	µg/g	76.2	60 - 120	
2-Methylbutane	ND	< 200		1490	1600	µg/g	93.1	60 - 120	
Pentane	ND	< 200		1480	1600	µg/g	92.5	60 - 120	
Ethanol	ND	< 200		1470	1600	µg/g	91.9	70 - 130	
Ethyl Ether	ND	< 200		1450	1600	µg/g	90.6	60 - 120	
2,2-Dimethylbutane	ND	< 30		150	163	µg/g	92.0	60 - 120	
Acetone	ND	< 200		1480	1610	µg/g	91.9	60 - 120	
2-Propanol	ND	< 200		1470	1600	µg/g	91.9	60 - 120	
Ethyl Formate	ND	< 500		1030	1620	µg/g	63.6	70 - 130	Q6
Acetonitrile	ND	< 100		432	481	µg/g	89.8	60 - 120	
Methyl Acetate	ND	< 500		1240	1610	µg/g	77.0	70 - 130	
2,3-Dimethylbutane	ND	< 30		142	161	µg/g	88.2	60 - 120	
Dichloromethane	ND	< 60		435	481	µg/g	90.4	60 - 120	
2-Methylpentane	ND	< 30		142	162	µg/g	87.7	60 - 120	
MTBE	ND	< 500		1170	1610	µg/g	72.7	70 - 130	
3-Methylpentane	ND	< 30		145	163	µg/g	89.0	60 - 120	
Hexane	ND	< 30		147	163	µg/g	90.2	60 - 120	
1-Propanol	ND	< 500		1280	1600	µg/g	80.0	70 - 130	
Methylethylketone	ND	< 500		1330	1610	µg/g	82.6	70 - 130	
Ethyl acetate	ND	< 200		1470	1610	µg/g	91.3	60 - 120	
2-Butanol	ND	< 200		1470	1600	µg/g	91.9	60 - 120	
Tetrahydrofuran	ND	< 100		439	487	µg/g	90.1	60 - 120	
Cyclohexane	ND	< 200		1470	1610	µg/g	91.3	60 - 120	
2-methyl-1-propanol	ND	< 500		1230	1610	µg/g	76.4	70 - 130	
Benzene	ND	< 1		4.22	4.88	µg/g	86.5	60 - 120	
Isopropyl Acetate	ND	< 200		1500	1610	µg/g	93.2	60 - 120	
Heptane	ND	< 200		1480	1600	µg/g	92.5	60 - 120	
1-Butanol	ND	< 500		1300	1610	µg/g	80.7	70 - 130	
Propyl Acetate	ND	< 500		1400	1610	µg/g	87.0	70 - 130	
1,4-Dioxane	ND	< 100		428	484	µg/g	88.4	60 - 120	
2-Ethoxyethanol	ND	< 30		140	162	µg/g	86.4	60 - 120	
Methylisobutylketone	ND	< 500		1420	1630	µg/g	87.1	70 - 130	
3-Methyl-1-butanol	ND	< 500		1270	1610	µg/g	78.9	70 - 130	
Ethylene Glycol	ND	< 200		350	496	µg/g	72.6	60 - 120	
Toluene	ND	< 100		437	486	µg/g	89.9	60 - 120	
Isobutyl Acetate	ND	< 500		1390	1610	µg/g	86.3	70 - 130	
1-Pentanol	ND	< 500		1310	1600	µg/g	81.9	70 - 130	
Butyl Acetate	ND	< 500		1360	1600	µg/g	85.0	70 - 130	
Ethylbenzene	ND	< 200		838	961	µg/g	87.2	60 - 120	
m,p-Xylene	ND	< 200		847	973	µg/g	87.1	60 - 120	
o-Xylene	ND	< 200		838	963	µg/g	87.0	60 - 120	
Cumene	ND	< 30		132	164	µg/g	80.5	60 - 120	
Anisole	ND	< 500		1110	1600	µg/g	69.4	70 - 130	Q6
DMSO	ND	< 500		1320	1610	µg/g	82.0	70 - 130	
1,2-dimethoxyethane	ND	< 50		141	170	µg/g	82.9	70 - 130	
Triethylamine	ND	< 500		1100	1600	µg/g	68.8	70 - 130	
N,N-dimethylformamide	ND	< 150		331	482	µg/g	68.7	70 - 130	Q6
N,N-dimethylacetamide	ND	< 150		408	488	µg/g	83.6	70 - 130	
Pyridine	ND	< 50		121	164	µg/g	73.8	70 - 130	
Sulfolane	ND	< 50		105	169	µg/g	62.1	70 - 130	Q6
1,2-Dichloroethane	ND	< 1		0.905	1	µg/g	90.5	70 - 130	
Chloroform	ND	< 1		0.878	1	µg/g	87.8	70 - 130	
Trichloroethylene	ND	< 1		0.756	1	µg/g	75.6	70 - 130	
1,1-Dichloroethane	ND	< 1		0.95	1	µg/g	95.0	70 - 130	



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QC - Sample Duplicate				Sample ID: 24-001574-0001				
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Accept/Fail	Notes
Propane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	30	µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Formate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
MTBE	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
1-Propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Methyl ethyl ketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethyl acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Butanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Tetrahydrofuran	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Cyclohexane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-methyl-1-propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Benzene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Isopropyl Acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Heptane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
1-Butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Propyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,4-Dioxane	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Methylisobutylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methyl-1-butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Anisole	ND	ND	500	µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500	µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Sulfolane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
1,1-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

µg/g- Microgram per gram or ppm



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Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662			Units: mg/Kg		Batch ID: 2401323			
Method Blank			Laboratory Control Sample					
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
Abamectin	0.000	< 0.250		0.883	1.000	88.3	50.0 150	
Acephate	0.000	< 0.200		0.640	0.800	80.0	60.0 120	
Acequinocyl	0.000	< 1.000		3.368	4.000	84.2	40.0 160	
Acetamiprid	0.000	< 0.100		0.361	0.400	90.2	60.0 120	
Aldicarb	0.000	< 0.200		0.678	0.800	84.8	60.0 120	
Azoxystrobin	0.000	< 0.100		0.361	0.400	90.2	60.0 120	
Bifenazate	0.000	< 0.100		0.352	0.400	88.0	60.0 120	
Bifenthrin	0.000	< 0.100		0.337	0.400	84.2	50.0 150	
Boscalid	0.000	< 0.200		0.705	0.800	88.2	60.0 120	
Carbaryl	0.000	< 0.100		0.353	0.400	88.3	60.0 120	
Carbofuran	0.000	< 0.100		0.352	0.400	88.1	60.0 120	
Chlorantraniliprole	0.000	< 0.100		0.351	0.400	87.7	60.0 120	
Chlorfenapyr	0.000	< 0.500		1.741	2.000	87.1	60.0 120	
Chlorpyrifos	0.000	< 0.100		0.325	0.400	81.3	60.0 120	
Clofentazine	0.000	< 0.100		0.257	0.400	64.1	60.0 120	
Cyfluthrin	0.000	< 0.500		1.746	2.000	87.3	50.0 150	
Cypermethrin	0.000	< 0.500		1.729	2.000	86.4	50.0 150	
Daminozide	0.062	< 0.500		0.672	2.000	33.6	60.0 120	Q7
Diazinon	0.000	< 0.100		0.341	0.400	85.1	60.0 120	
Dichlorvos	0.000	< 0.500		1.804	2.000	90.2	60.0 120	
Dimethoate	0.000	< 0.100		0.356	0.400	88.9	60.0 120	
Ethoprophos	0.000	< 0.100		0.334	0.400	83.4	60.0 120	
Etofenprox	0.000	< 0.200		0.694	0.800	86.8	50.0 150	
Etoxazole	0.000	< 0.100		0.347	0.400	86.7	60.0 120	
Fenoxycarb	0.000	< 0.100		0.345	0.400	86.2	60.0 120	
Fenpyroximate	0.000	< 0.200		0.710	0.800	88.7	60.0 120	
Fipronil	0.000	< 0.200		0.716	0.800	89.5	60.0 120	
Fonicamid	0.000	< 0.250		0.779	1.000	77.9	60.0 120	
Fludioxonil	0.000	< 0.200		0.660	0.800	82.5	50.0 150	
Hexythiazox	0.000	< 0.250		0.875	1.000	87.5	60.0 120	
Imazalil	0.000	< 0.100		0.354	0.400	88.6	60.0 120	
Imidacloprid	0.000	< 0.200		0.707	0.800	88.3	60.0 120	
Kresoxim-methyl	0.000	< 0.200		0.703	0.800	87.9	60.0 120	
Malathion	0.000	< 0.100		0.368	0.400	91.9	60.0 120	
Metaxyl	0.000	< 0.100		0.346	0.400	86.5	60.0 120	
Methiocarb	0.000	< 0.100		0.336	0.400	84.1	60.0 120	
Methomyl	0.000	< 0.200		0.600	0.800	75.0	60.0 120	
MGK-264	0.000	< 0.100		0.345	0.400	86.3	50.0 150	
Myclobutanil	0.000	< 0.100		0.359	0.400	89.8	60.0 120	
Naled	0.000	< 0.250		0.878	1.000	87.8	50.0 150	
Oxamyl	0.000	< 0.500		1.414	2.000	70.7	60.0 120	
Paclobutrazole	0.000	< 0.200		0.728	0.800	91.0	60.0 120	
Parathion-Methyl	0.018	< 0.100		0.589	0.400	147.4	50.0 150	
Permethrin	0.012	< 0.100		0.342	0.400	85.5	50.0 150	
Phosmet	0.000	< 0.100		0.358	0.400	89.6	50.0 150	
Piperonyl butoxide	0.000	< 0.500		1.778	2.000	88.9	60.0 120	
Prallethrin	0.000	< 0.100		0.352	0.400	88.0	60.0 120	
Propiconazole	0.000	< 0.200		0.711	0.800	88.9	60.0 120	
Propoxur	0.000	< 0.100		0.341	0.400	85.4	60.0 120	
Pyrethrin (Summe)	0.000	< 0.100		0.419	0.488	85.9	60.0 120	
Pyridaben	0.000	< 0.100		0.343	0.400	85.7	50.0 150	
Spinosad	0.000	< 0.100		0.349	0.388	90.0	50.0 150	
Spiromesifen	0.000	< 0.100		0.360	0.400	90.1	60.0 120	
Spirotetramat	0.000	< 0.100		0.363	0.400	90.8	60.0 120	
Spiroxamine	0.000	< 0.200		0.681	0.800	85.1	60.0 120	
Tebuconazole	0.000	< 0.200		0.713	0.800	89.1	60.0 120	
Thiacloprid	0.000	< 0.100		0.360	0.400	89.9	60.0 120	
Thiamethoxam	0.000	< 0.100		0.322	0.400	80.5	60.0 120	
Trifloxystrobin	0.000	< 0.100		0.352	0.400	88.0	60.0 120	

Q7



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Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662 Units: mg/Kg Batch ID: 2401323										
Matrix Spike/Matrix Spike Duplicate Recoveries Sample ID: 24-001677-0005										
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes
Abamectin	0.000	0.868	0.840	1.000	3.3%	< 30	86.8%	84.0%	50 - 150	
Acephate	0.000	0.678	0.675	0.800	0.5%	< 30	84.8%	84.4%	50 - 150	
Acequinocyl	0.000	4.104	3.980	4.000	3.1%	< 30	102.6%	99.5%	50 - 150	
Acetamiprid	0.000	0.359	0.393	0.400	9.3%	< 30	89.6%	98.3%	50 - 150	
Aldicarb	0.000	0.728	0.670	0.800	8.3%	< 30	91.0%	83.8%	50 - 150	
Azoxystrobin	0.000	0.338	0.341	0.400	0.9%	< 30	84.4%	85.2%	50 - 150	
Bifenazate	0.000	0.353	0.348	0.400	1.6%	< 30	88.3%	86.9%	50 - 150	
Bifenthrin	0.000	0.325	0.330	0.400	1.3%	< 30	81.3%	82.4%	50 - 150	
Boscalid	0.000	0.706	0.724	0.800	2.5%	< 30	88.3%	90.5%	50 - 150	
Carbaryl	0.000	0.347	0.347	0.400	0.1%	< 30	86.7%	86.8%	50 - 150	
Carbofuran	0.000	0.350	0.349	0.400	0.3%	< 30	87.6%	87.3%	50 - 150	
Chlorantraniliprole	0.000	0.347	0.356	0.400	2.6%	< 30	86.8%	89.1%	50 - 150	
Chlorfenvapir	0.000	1.685	1.620	2.000	4.0%	< 30	84.3%	81.0%	50 - 150	
Chlorpyrifos	0.000	0.321	0.334	0.400	3.9%	< 30	80.3%	83.5%	50 - 150	
Clofentezine	0.000	0.094	0.092	0.400	2.1%	< 30	23.5%	23.0%	50 - 150	Q
Cyfluthrin	0.000	1.921	2.005	2.000	4.2%	< 30	96.1%	100.2%	30 - 150	
Cypermethrin	0.000	1.914	1.945	2.000	1.6%	< 30	95.7%	97.2%	50 - 150	
Daminozide	0.000	0.652	0.648	2.000	0.7%	< 30	32.6%	32.4%	30 - 150	
Diazinon	0.000	0.313	0.313	0.400	0.0%	< 30	78.4%	78.4%	50 - 150	
Dichlorvos	0.000	1.755	1.724	2.000	1.8%	< 30	87.7%	86.2%	50 - 150	
Dimethoate	0.000	0.354	0.355	0.400	0.4%	< 30	88.4%	88.8%	50 - 150	
Ethoprophos	0.000	0.333	0.347	0.400	4.0%	< 30	83.3%	86.7%	50 - 150	
Etofenprox	0.000	0.654	0.649	0.800	0.9%	< 30	81.8%	81.1%	50 - 150	
Etoxazole	0.000	0.332	0.337	0.400	1.5%	< 30	82.9%	84.2%	50 - 150	
Fenoxycarb	0.000	0.326	0.340	0.400	4.0%	< 30	81.6%	85.0%	50 - 150	
Fenpyroximate	0.000	0.675	0.688	0.800	1.9%	< 30	84.3%	86.0%	50 - 150	
Fipronil	0.000	0.713	0.743	0.800	4.1%	< 30	89.1%	92.8%	50 - 150	
Fonicamid	0.000	0.918	0.862	1.000	6.2%	< 30	91.8%	86.2%	50 - 150	
Fludioxonil	0.000	0.670	0.655	0.800	2.3%	< 30	83.8%	81.9%	50 - 150	
Hexythiazox	0.000	1.650	1.707	1.000	3.4%	< 30	165.0%	170.7%	50 - 150	Q
Imazalil	0.000	0.359	0.363	0.400	1.0%	< 30	89.8%	90.7%	50 - 150	
Imidacloprid	0.000	0.686	0.695	0.800	1.4%	< 30	85.7%	86.9%	50 - 150	
Kresoxim-methyl	0.000	0.694	0.668	0.800	3.9%	< 30	86.8%	83.5%	50 - 150	
Malathion	0.000	0.334	0.338	0.400	1.1%	< 30	83.5%	84.4%	50 - 150	
Metaxyl	0.000	0.338	0.338	0.400	0.0%	< 30	84.5%	84.5%	50 - 150	
Methiocarb	0.000	0.348	0.339	0.400	2.6%	< 30	87.0%	84.8%	50 - 150	
Methomyl	0.000	0.688	0.660	0.800	4.2%	< 30	86.1%	82.5%	50 - 150	
MGK-264	0.000	0.321	0.350	0.400	8.5%	< 30	80.3%	87.4%	50 - 150	
Myclobutanil	0.000	0.352	0.344	0.400	2.3%	< 30	87.9%	86.0%	50 - 150	
Naled	0.000	0.862	0.879	1.000	2.0%	< 30	86.2%	87.9%	50 - 150	
Oxamyl	0.000	1.601	1.454	2.000	9.6%	< 30	80.0%	72.7%	50 - 150	
Paclobutrazole	0.000	0.695	0.753	0.800	8.0%	< 30	86.9%	94.2%	50 - 150	
Parathion-Methyl	0.000	0.342	0.366	0.400	6.7%	< 30	85.5%	91.5%	30 - 150	
Permethrin	0.000	0.317	0.325	0.400	2.3%	< 30	79.4%	81.2%	50 - 150	
Phosmet	0.000	0.342	0.353	0.400	3.0%	< 30	85.6%	88.2%	50 - 150	
Piperonyl butoxide	0.000	1.673	1.710	2.000	2.1%	< 30	83.7%	85.5%	50 - 150	
Prallethrin	0.000	0.356	0.354	0.400	0.5%	< 30	89.0%	88.5%	50 - 150	
Propiconazole	0.000	0.676	0.737	0.800	8.6%	< 30	84.5%	92.1%	50 - 150	
Propoxur	0.000	0.344	0.346	0.400	0.5%	< 30	86.0%	86.5%	50 - 150	
Pyrethrin (Summe)	0.000	0.412	0.418	0.488	1.4%	< 30	84.4%	85.6%	50 - 150	
Pyridaben	0.000	0.375	0.376	0.400	0.4%	< 30	93.6%	94.0%	50 - 150	
Spinosad	0.000	0.341	0.349	0.388	2.3%	< 30	87.9%	89.9%	50 - 150	
Spiromesifen	0.000	0.318	0.323	0.400	1.8%	< 30	79.4%	80.9%	50 - 150	
Spirotetramat	0.000	0.346	0.354	0.400	2.4%	< 30	86.4%	88.5%	50 - 150	
Spiroxamine	0.000	0.686	0.681	0.800	0.8%	< 30	85.8%	85.1%	50 - 150	
Tebuconazole	0.000	0.717	0.709	0.800	1.1%	< 30	89.6%	88.6%	50 - 150	
Thiacloprid	0.000	0.353	0.352	0.400	0.3%	< 30	88.4%	88.1%	50 - 150	
Thiamethoxam	0.000	0.323	0.325	0.400	0.5%	< 30	80.8%	81.2%	50 - 150	
Trifloxystrobin	0.000	0.336	0.337	0.400	0.2%	< 30	84.1%	84.3%	50 - 150	



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Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitation level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.