Columbia LABORATORIES
A Tentamus Company

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

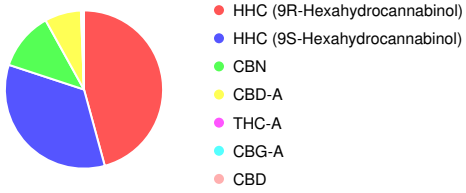
**Report Number:** 23-008331/D004.R000
**Report Date:** 07/21/2023
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 07/14/23 13:59

**Customer:** The Hemp Collect
**Product identity:** Live HHC Extract - Knockout - Pineapple Kush
**Client/Metrc ID:** 101223193012
**Laboratory ID:** 23-008331-0003

## Summary

### Potency:

| Analyte | Result (%) |
|---|---|
| HHC (9R-Hexahydrocannabinol) | 36.7 |
| HHC (9S-Hexahydrocannabinol) | 27.5 |
| CBN | 9.53 |
| CBD-A | 5.97 |
| THC-A | 0.192 |
| CBG-A | 0.158 |
| CBD | 0.151 |




| | |
|---|---|
| CBD-Total | 5.39% |
| THC-Total | 0.168% |

(Reported in percent of total sample)

### Residual Solvents:

*All analytes passing and less than LOQ.*

### Pesticides:

*All analytes passing and less than LOQ.*

### Metals:

*Less than LOQ for all analytes.*






Testing in accordance with: OAR 333-007-0430

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**Customer:** The Hemp Collect
825 NW 16th Ave
Portland Oregon 97209
United States of America (USA)

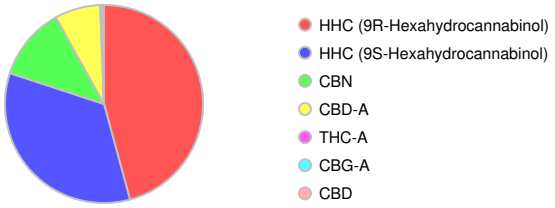
**Product identity:** Live HHC Extract - Knockout - Pineapple Kush
**Client/Metrc ID:** 101223193012
**Sample Date:**
**Laboratory ID:** 23-008331-0003
**Evidence of Cooling:** No
**Temp:** 23.2 °C
**Relinquished by:** Shipping

THE HEMP COLLECT

## Sample Results

Potency **Method:** J AOAC 2015 V98-6 (mod)[b] **Units** % **Batch:** 2309186 **Analyze:** 7/17/23 8:05:00 PM

| Analyte | As Received | Dry weight | LOQ | Notes |
|---|---|---|---|---|
| CBD | 0.151 | | 0.0683 | |
| CBD-A | 5.97 | | 0.0683 | |
| CBD-Total | 5.39 | | 0.128 | |
| CBG | < LOQ | | 0.0683 | |
| CBG-A | 0.158 | | 0.0683 | |
| CBG-Total | 0.139 | | 0.127 | |
| CBN | 9.53 | | 0.0683 | |
| Δ10-THC-9R | < LOQ | | 0.0683 | |
| Δ10-THC-9S | < LOQ | | 0.0683 | |
| Δ10-THC-Total | < LOQ | | 0.137 | |
| Δ8-THC | < LOQ | | 0.0683 | |
| Δ9-THC | < LOQ | | 0.0683 | |
| HHC (9R-Hexahydrocannabinol) | 36.7 | | 0.683 | |
| HHC (9S-Hexahydrocannabinol) | 27.5 | | 0.683 | |
| THC-A | 0.192 | | 0.0683 | |
| THC-O-Acetate, delta-8 | < LOQ | | 0.0683 | |
| THC-O-Acetate, delta-9 | < LOQ | | 0.0683 | |
| THC-Total | 0.168 | | 0.128 | |
| **Total Cannabinoids** | 80.2 | | | |



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**Purchase Order:**
**Received:** 07/14/23 13:59

Solvents **Method:** Residual Solvents by GC/MS$^{b}$ **Units** µg/g **Batch** 2309278 **Analyze** 07/20/23 02:01 PM

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

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## Pesticides

**Method:** AOAC 2007.01 & EN 15662 (mod)þ **Units** mg/kg **Batch** 2309188 **Analyze** 07/18/23 11:58 AM

| 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 | 0.0730 | 2309307 | 07/20/23 | AOAC 2013.06 (mod.)þ | pass | |
| Cadmium¥ | < LOQ | 0.200 | mg/kg | 0.0730 | 2309307 | 07/20/23 | AOAC 2013.06 (mod.)þ | pass | |
| Lead¥ | < LOQ | 0.500 | mg/kg | 0.0730 | 2309307 | 07/20/23 | AOAC 2013.06 (mod.)þ | pass | |
| Mercury¥ | < LOQ | 0.100 | mg/kg | 0.0365 | 2309307 | 07/20/23 | AOAC 2013.06 (mod.)þ | pass | |

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| | |
|---|---|
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| **Report Date:** | 07/21/2023 |
| **ORELAP#:** | OR100028 |
| **Purchase Order:** | |
| **Received:** | 07/14/23 13:59 |

***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.

þ = ISO/IEC 17025:2017 accredited method.
¥ = TNI accredited analyte.

***Units of Measure***

µg/g = Microgram per gram
mg/kg = Milligram per kilogram = parts per million (ppm)
% = Percentage of sample
% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager

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**Report Date:** 07/21/2023
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Revision: 4 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

**Laboratory Quality Control Results**

**J AOAC 2015 V98-6** **Batch ID: 2309186**

**Laboratory Control Sample**

| Analyte | LCS | Result | Spike | Units | % Rec | Limits | Evaluation | Notes |
|---|---|---|---|---|---|---|---|---|
| CBDVA | 2 | 0.0793 | 0.0729 | % | 109 | 80.0 - 120 | Acceptable | |
| CBDV | 2 | 0.0786 | 0.0727 | % | 108 | 80.0 - 120 | Acceptable | |
| CBE | 2 | 0.0861 | 0.0803 | % | 107 | 80.0 - 120 | Acceptable | |
| CBDA | 1 | 0.0777 | 0.0750 | % | 104 | 90.0 - 110 | Acceptable | |
| CBGA | 1 | 0.0777 | 0.0753 | % | 103 | 80.0 - 120 | Acceptable | |
| CBG | 1 | 0.0791 | 0.0766 | % | 103 | 80.0 - 120 | Acceptable | |
| CBD | 1 | 0.0812 | 0.0779 | % | 104 | 90.0 - 110 | Acceptable | |
| THCV | 2 | 0.0584 | 0.0546 | % | 107 | 80.0 - 120 | Acceptable | |
| d8THCV | 2 | 0.0673 | 0.0644 | % | 105 | 80.0 - 120 | Acceptable | |
| THCVA | 2 | 0.0792 | 0.0711 | % | 111 | 80.0 - 120 | Acceptable | |
| CBN | 1 | 0.0788 | 0.0784 | % | 100 | 80.0 - 120 | Acceptable | |
| exo-THC | 2 | 0.0678 | 0.0653 | % | 104 | 80.0 - 120 | Acceptable | |
| d9THC | 1 | 0.0785 | 0.0759 | % | 103 | 90.0 - 110 | Acceptable | |
| d8THC | 1 | 0.0733 | 0.0738 | % | 99.3 | 90.0 - 110 | Acceptable | |
| 9S-d10THC | 1 | 0.0791 | 0.0791 | % | 100 | 80.0 - 120 | Acceptable | |
| CBL | 2 | 0.0772 | 0.0718 | % | 108 | 80.0 - 120 | Acceptable | |
| 9S-HHC | 3 | 0.308 | 0.316 | % | 97.5 | 80.0 - 120 | Acceptable | |
| 9R-d10THC | 1 | 0.0717 | 0.0722 | % | 99.4 | 80.0 - 120 | Acceptable | |
| CBC | 2 | 0.0697 | 0.0675 | % | 103 | 80.0 - 120 | Acceptable | |
| 9R-HHC | 3 | 0.193 | 0.198 | % | 97.6 | 80.0 - 120 | Acceptable | |
| THCA | 1 | 0.0739 | 0.0744 | % | 99.3 | 90.0 - 110 | Acceptable | |
| CBCA | 2 | 0.0800 | 0.0737 | % | 108 | 80.0 - 120 | Acceptable | |
| CBLA | 2 | 0.0758 | 0.0698 | % | 109 | 80.0 - 120 | Acceptable | |
| d9THCP | 2 | 0.0756 | 0.0752 | % | 101 | 80.0 - 120 | Acceptable | |
| d8THCO | 3 | 0.0735 | 0.0784 | % | 93.8 | 80.0 - 120 | Acceptable | |
| CBT | 2 | 0.0731 | 0.0753 | % | 97.1 | 80.0 - 120 | Acceptable | |
| d9THCO | 3 | 0.0753 | 0.0810 | % | 93.0 | 80.0 - 120 | Acceptable | |

**Method Blank**

| Analyte | Result | LOQ | Units | Limits | Evaluation | Notes |
|---|---|---|---|---|---|---|
| CBDVA | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBDV | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBE | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBDA | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBGA | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBG | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBD | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| THCV | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| d8THCV | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| THCVA | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBN | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| exo-THC | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| d9THC | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| d8THC | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| 9S-d10THC | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBL | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| 9S-HHC | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| 9R-d10THC | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBC | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| 9R-HHC | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| THCA | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBCA | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBLA | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| d9THCP | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| d8THCO | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| CBT | <LOQ | 0.0677 | % | < 0.0677 | Acceptable | |
| d9THCO | <LOQ | 0.0677 | % | < 0.0677 | 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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Revision: 4 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

**Laboratory Quality Control Results**

**J AOAC 2015 V98-6** **Batch ID: 2309186**

**Sample Duplicate** Sample ID: **23-008331-0002**

| Analyte | Result | Org. Result | LOQ | Units | RPD | Limits | Evaluation | Notes |
|---|---|---|---|---|---|---|---|---|
| CBDVA | 0.155 | 0.156 | 0.0732 | % | 0.766 | < 20 | Acceptable | |
| CBDV | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| CBE | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| CBDA | 60.1 | 60.9 | 0.0732 | % | 1.35 | < 20 | Acceptable | |
| CBGA | 1.45 | 1.44 | 0.0732 | % | 0.568 | < 20 | Acceptable | |
| CBG | 0.313 | 0.313 | 0.0732 | % | 0.158 | < 20 | Acceptable | |
| CBD | 5.26 | 5.32 | 0.0732 | % | 1.23 | < 20 | Acceptable | |
| THCV | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| d8THCV | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| THCVA | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| CBN | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| exo-THC | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| d9THC | 0.584 | 0.588 | 0.0732 | % | 0.755 | < 20 | Acceptable | |
| d8THC | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| 9S-d10THC | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| CBL | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| 9S-HHC | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| 9R-d10THC | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| CBC | 0.458 | 0.465 | 0.0732 | % | 1.50 | < 20 | Acceptable | |
| 9R-HHC | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| THCA | 2.15 | 2.17 | 0.0732 | % | 0.969 | < 20 | Acceptable | |
| CBCA | 3.06 | 3.09 | 0.0732 | % | 1.06 | < 20 | Acceptable | |
| CBLA | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| d9THCP | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| d8THCO | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| CBT | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | Acceptable | |
| d9THCO | <LOQ | <LOQ | 0.0732 | % | NA | < 20 | 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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Revision: 3 Document ID: 3120
LegacyID: CFLC21 Worksheet Validated 10/30/2020

## Laboratory Pesticide Quality Control Results

| AOAC 2007.1 &EN 15662 | | Units: mg/Kg | | | | | Batch ID: 2309188 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Method Blank | | | | Laboratory Control Sample | | | | | | |
| Analyte | Blank Result | Blank Limits | Notes | LCS Result | LCS Spike | LCS % Rec | Limits | | | Notes |
| Abamectin | 0.000 | < 0.250 | | 0.970 | 1.000 | 97.0 | 50.0 | 150 | | |
| Acephate | 0.132 | < 0.200 | | 0.782 | 0.800 | 97.7 | 60.0 | 120 | | |
| Acequinocyl | 0.000 | < 1.000 | | 3.585 | 4.000 | 89.6 | 40.0 | 160 | | |
| Acetamiprid | 0.000 | < 0.100 | | 0.383 | 0.400 | 95.9 | 60.0 | 120 | | |
| Aldicarb | 0.000 | < 0.200 | | 0.789 | 0.800 | 98.6 | 60.0 | 120 | | |
| Azoxystrobin | 0.000 | < 0.100 | | 0.373 | 0.400 | 93.2 | 60.0 | 120 | | |
| Bifenazate | 0.000 | < 0.100 | | 0.593 | 0.400 | 148.4 | 60.0 | 120 | | Q1 |
| Bifenthrin | 0.000 | < 0.100 | | 0.372 | 0.400 | 92.9 | 50.0 | 150 | | |
| Boscalid | 0.000 | < 0.200 | | 0.700 | 0.800 | 87.6 | 60.0 | 120 | | |
| Carbaryl | 0.000 | < 0.100 | | 0.391 | 0.400 | 97.8 | 60.0 | 120 | | |
| Carbofuran | 0.000 | < 0.100 | | 0.387 | 0.400 | 96.7 | 60.0 | 120 | | |
| Chlorantraniliprole | 0.000 | < 0.100 | | 0.384 | 0.400 | 96.1 | 60.0 | 120 | | |
| Chlorfenapyr | 0.000 | < 0.500 | | 1.912 | 2.000 | 95.6 | 60.0 | 120 | | |
| Chlorpyrifos | 0.000 | < 0.100 | | 0.372 | 0.400 | 93.1 | 60.0 | 120 | | |
| Clofentezine | 0.000 | < 0.100 | | 0.368 | 0.400 | 92.1 | 60.0 | 120 | | |
| Cyfluthrin | 0.000 | < 0.500 | | 2.068 | 2.000 | 103.4 | 50.0 | 150 | | |
| Cypermethrin | 0.000 | < 0.500 | | 1.956 | 2.000 | 97.8 | 50.0 | 150 | | |
| Daminozide | 0.433 | < 0.500 | | 2.224 | 2.000 | 111.2 | 60.0 | 120 | | |
| Diazinon | 0.000 | < 0.100 | | 0.418 | 0.400 | 104.5 | 60.0 | 120 | | |
| Dichlorvos | 0.000 | < 0.500 | | 1.879 | 2.000 | 94.0 | 60.0 | 120 | | |
| Dimethoate | 0.008 | < 0.100 | | 0.395 | 0.400 | 98.7 | 60.0 | 120 | | |
| Ethoprophos | 0.000 | < 0.100 | | 0.388 | 0.400 | 97.1 | 60.0 | 120 | | |
| Etofenprox | 0.000 | < 0.200 | | 0.735 | 0.800 | 91.9 | 50.0 | 150 | | |
| Etoxazole | 0.000 | < 0.100 | | 0.372 | 0.400 | 92.9 | 60.0 | 120 | | |
| Fenoxycarb | 0.000 | < 0.100 | | 0.382 | 0.400 | 95.5 | 60.0 | 120 | | |
| Fenpyroximate | 0.000 | < 0.200 | | 0.773 | 0.800 | 96.6 | 60.0 | 120 | | |
| Fipronil | 0.000 | < 0.200 | | 0.739 | 0.800 | 92.4 | 60.0 | 120 | | |
| Flonicamid | 0.000 | < 0.250 | | 1.073 | 1.000 | 107.3 | 60.0 | 120 | | |
| Fludioxonil | 0.000 | < 0.200 | | 0.783 | 0.800 | 97.9 | 50.0 | 150 | | |
| Hexythiazox | 0.000 | < 0.250 | | 0.907 | 1.000 | 90.7 | 60.0 | 120 | | |
| Imazalil | 0.000 | < 0.100 | | 0.398 | 0.400 | 99.4 | 60.0 | 120 | | |
| Imidacloprid | 0.000 | < 0.200 | | 0.734 | 0.800 | 91.8 | 60.0 | 120 | | |
| Kresoxim-methyl | 0.000 | < 0.200 | | 0.750 | 0.800 | 93.8 | 60.0 | 120 | | |
| Malathion | 0.000 | < 0.100 | | 0.381 | 0.400 | 95.4 | 60.0 | 120 | | |
| Metalaxyl | 0.000 | < 0.100 | | 0.388 | 0.400 | 97.1 | 60.0 | 120 | | |
| Methiocarb | 0.000 | < 0.100 | | 0.374 | 0.400 | 93.5 | 60.0 | 120 | | |
| Methomyl | 0.000 | < 0.200 | | 0.780 | 0.800 | 97.4 | 60.0 | 120 | | |
| MGK-264 | 0.000 | < 0.100 | | 0.365 | 0.400 | 91.2 | 50.0 | 150 | | |
| Myclobutanil | 0.004 | < 0.100 | | 0.349 | 0.400 | 87.4 | 60.0 | 120 | | |
| Naled | 0.000 | < 0.250 | | 0.963 | 1.000 | 96.3 | 50.0 | 150 | | |
| Oxamyl | 0.000 | < 0.500 | | 1.951 | 2.000 | 97.6 | 60.0 | 120 | | |
| Paclobutrazole | 0.000 | < 0.200 | | 0.781 | 0.800 | 97.7 | 60.0 | 120 | | |
| Parathion-Methyl | 0.000 | < 0.100 | | 0.418 | 0.400 | 104.4 | 50.0 | 150 | | |
| Permethrin | 0.000 | < 0.100 | | 0.377 | 0.400 | 94.2 | 50.0 | 150 | | |
| Phosmet | 0.000 | < 0.100 | | 0.389 | 0.400 | 97.2 | 50.0 | 150 | | |
| Piperonyl butoxide | 0.000 | < 0.500 | | 1.956 | 2.000 | 97.8 | 60.0 | 120 | | |
| Prallethrin | 0.002 | < 0.100 | | 0.357 | 0.400 | 89.1 | 60.0 | 120 | | |
| Propiconazole | 0.000 | < 0.200 | | 0.766 | 0.800 | 95.7 | 60.0 | 120 | | |
| Propoxur | 0.000 | < 0.100 | | 0.390 | 0.400 | 97.5 | 60.0 | 120 | | |
| Pyrethrin (Summe) | 0.002 | < 0.100 | | 0.468 | 0.488 | 96.0 | 60.0 | 120 | | |
| Pyridaben | 0.000 | < 0.100 | | 0.377 | 0.400 | 94.1 | 50.0 | 150 | | |
| Spinosad | 0.000 | < 0.100 | | 0.361 | 0.388 | 92.9 | 50.0 | 150 | | |
| Spiromesifen | 0.000 | < 0.100 | | 0.382 | 0.400 | 95.4 | 60.0 | 120 | | |
| Spirotetramat | 0.000 | < 0.100 | | 0.382 | 0.400 | 95.5 | 60.0 | 120 | | |
| Spiroxamine | 0.000 | < 0.200 | | 0.734 | 0.800 | 91.7 | 60.0 | 120 | | |
| Tebuconazole | 0.000 | < 0.200 | | 0.741 | 0.800 | 92.6 | 60.0 | 120 | | |
| Thiadoprid | 0.000 | < 0.100 | | 0.403 | 0.400 | 100.8 | 60.0 | 120 | | |
| Thiamethoxam | 0.000 | < 0.100 | | 0.413 | 0.400 | 103.4 | 60.0 | 120 | | |
| Trifloxystrobin | 0.000 | < 0.100 | | 0.376 | 0.400 | 94.1 | 60.0 | 120 | | |

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

**Report Number:** 23-008331/D004.R000
**Report Date:** 07/21/2023
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 07/14/23 13:59

Revision: 3 Document ID: 3120
LegacyID: CFLC21 Worksheet Validated 10/30/2020

## Laboratory Pesticide Quality Control Results

AOAC 2007.1 &EN 15662 | Units: mg/Kg | Batch ID: 2309188

Matrix Spike/Matrix Spike Duplicate Recoveries | Sample ID: 23-0083940001

| Analyte | Result | MS Res | MSD Res | Spike | RPD% | Limit | MS % Rec | MSD % Rec | Limits | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Abamectin | 0.000 | 1.094 | 1.365 | 1.000 | 22.0% | < 30 | 109.4% | 136.5% | 50 - 150 | |
| Acephate | 0.000 | 0.700 | 0.810 | 0.800 | 14.5% | < 30 | 87.6% | 101.3% | 50 - 150 | |
| Acequinocyl | 0.000 | 5.167 | 7.590 | 4.000 | 38.0% | < 30 | 129.2% | 189.8% | 50 - 150 | R, Q |
| Acetamiprid | 0.000 | 0.381 | 0.400 | 0.400 | 4.8% | < 30 | 95.3% | 100.0% | 50 - 150 | |
| Aldicarb | 0.000 | 0.788 | 0.864 | 0.800 | 9.1% | < 30 | 98.6% | 108.0% | 50 - 150 | |
| Azoxystrobin | 0.000 | 0.355 | 0.373 | 0.400 | 4.8% | < 30 | 88.8% | 93.2% | 50 - 150 | |
| Bifenazate | 0.000 | 0.665 | 0.749 | 0.400 | 11.9% | < 30 | 166.1% | 187.1% | 50 - 150 | Q |
| Bifenthrin | 0.000 | 0.453 | 0.488 | 0.400 | 7.5% | < 30 | 113.2% | 122.1% | 50 - 150 | |
| Boscalid | 0.000 | 0.717 | 0.856 | 0.800 | 17.7% | < 30 | 89.6% | 107.0% | 50 - 150 | |
| Carbaryl | 0.000 | 0.365 | 0.405 | 0.400 | 10.5% | < 30 | 91.1% | 101.2% | 50 - 150 | |
| Carbofuran | 0.000 | 0.371 | 0.410 | 0.400 | 10.1% | < 30 | 92.7% | 102.6% | 50 - 150 | |
| Chlorantraniliprole | 0.000 | 0.360 | 0.416 | 0.400 | 14.3% | < 30 | 90.1% | 104.0% | 50 - 150 | |
| Chlorfenapyr | 0.000 | 1.747 | 2.213 | 2.000 | 23.6% | < 30 | 87.4% | 110.7% | 50 - 150 | |
| Chlorpyrifos | 0.000 | 0.342 | 0.368 | 0.400 | 7.3% | < 30 | 85.5% | 92.0% | 50 - 150 | |
| Clofentezine | 0.061 | 0.337 | 0.362 | 0.400 | 8.8% | < 30 | 68.9% | 75.3% | 50 - 150 | |
| Cyfluthrin | 0.000 | 1.975 | 1.974 | 2.000 | 0.0% | < 30 | 98.7% | 98.7% | 30 - 150 | |
| Cypermethrin | 0.000 | 1.873 | 1.833 | 2.000 | 2.1% | < 30 | 93.6% | 91.7% | 50 - 150 | |
| Daminozide | 0.376 | 2.259 | 2.623 | 2.000 | 17.6% | < 30 | 94.2% | 112.4% | 30 - 150 | |
| Diazinon | 0.000 | 0.330 | 0.373 | 0.400 | 12.4% | < 30 | 82.4% | 93.3% | 50 - 150 | |
| Dichlorvos | 0.000 | 1.888 | 2.007 | 2.000 | 6.2% | < 30 | 94.4% | 100.4% | 50 - 150 | |
| Dimethoate | 0.007 | 0.418 | 0.415 | 0.400 | 0.7% | < 30 | 102.6% | 101.9% | 50 - 150 | |
| Ethoprophos | 0.000 | 0.363 | 0.427 | 0.400 | 16.1% | < 30 | 90.9% | 106.7% | 50 - 150 | |
| Etofenprox | 0.000 | 0.798 | 0.858 | 0.800 | 7.3% | < 30 | 99.7% | 107.3% | 50 - 150 | |
| Etoxazole | 0.000 | 0.394 | 0.420 | 0.400 | 6.5% | < 30 | 98.5% | 105.0% | 50 - 150 | |
| Fenoxycarb | 0.000 | 0.365 | 0.410 | 0.400 | 11.6% | < 30 | 91.3% | 102.5% | 50 - 150 | |
| Fenpyroximate | 0.000 | 0.664 | 0.697 | 0.800 | 4.8% | < 30 | 83.1% | 87.1% | 50 - 150 | |
| Fipronil | 0.000 | 0.654 | 0.767 | 0.800 | 15.8% | < 30 | 81.8% | 95.8% | 50 - 150 | |
| Flonicamid | 0.000 | 1.071 | 1.034 | 1.000 | 3.5% | < 30 | 107.1% | 103.4% | 50 - 150 | |
| Fludioxonil | 0.000 | 0.988 | 0.991 | 0.800 | 0.2% | < 30 | 123.5% | 123.8% | 50 - 150 | |
| Hexythiazox | 0.000 | 0.887 | 1.134 | 1.000 | 24.4% | < 30 | 88.7% | 113.4% | 50 - 150 | |
| Imazalil | 0.004 | 0.374 | 0.420 | 0.400 | 11.7% | < 30 | 92.5% | 104.0% | 50 - 150 | |
| Imidacloprid | 0.000 | 0.804 | 0.834 | 0.800 | 3.7% | < 30 | 100.5% | 104.2% | 50 - 150 | |
| Kresoxim-methyl | 0.000 | 0.725 | 0.810 | 0.800 | 11.0% | < 30 | 90.6% | 101.2% | 50 - 150 | |
| Malathion | 0.000 | 0.369 | 0.410 | 0.400 | 10.3% | < 30 | 92.3% | 102.4% | 50 - 150 | |
| Metalaxyl | 0.000 | 0.373 | 0.428 | 0.400 | 13.6% | < 30 | 93.3% | 107.0% | 50 - 150 | |
| Methiocarb | 0.000 | 0.364 | 0.420 | 0.400 | 14.4% | < 30 | 91.0% | 105.1% | 50 - 150 | |
| Methomyl | 0.000 | 0.806 | 0.829 | 0.800 | 2.9% | < 30 | 100.7% | 103.6% | 50 - 150 | |
| MGK-264 | 0.000 | 0.332 | 0.392 | 0.400 | 16.3% | < 30 | 83.1% | 97.9% | 50 - 150 | |
| Mydobutanil | 0.000 | 0.382 | 0.401 | 0.400 | 4.8% | < 30 | 95.5% | 100.2% | 50 - 150 | |
| Naled | 0.000 | 0.926 | 1.016 | 1.000 | 9.3% | < 30 | 92.6% | 101.6% | 50 - 150 | |
| Oxamyl | 0.000 | 1.986 | 2.036 | 2.000 | 2.4% | < 30 | 99.3% | 101.8% | 50 - 150 | |
| Padobutrazole | 0.000 | 0.744 | 0.841 | 0.800 | 12.2% | < 30 | 93.0% | 105.1% | 50 - 150 | |
| Parathion-Methyl | 0.000 | 0.376 | 0.417 | 0.400 | 10.2% | < 30 | 94.1% | 104.2% | 30 - 150 | |
| Permethrin | 0.000 | 0.474 | 0.482 | 0.400 | 1.6% | < 30 | 118.5% | 120.4% | 50 - 150 | |
| Phosmet | 0.000 | 0.374 | 0.429 | 0.400 | 13.7% | < 30 | 93.4% | 107.2% | 50 - 150 | |
| Piperonyl butoxide | 0.000 | 1.799 | 2.095 | 2.000 | 15.2% | < 30 | 89.9% | 104.8% | 50 - 150 | |
| Prallethrin | 0.000 | 0.366 | 0.377 | 0.400 | 2.9% | < 30 | 91.6% | 94.3% | 50 - 150 | |
| Propiconazole | 0.000 | 0.933 | 1.056 | 0.800 | 12.4% | < 30 | 116.6% | 132.1% | 50 - 150 | |
| Propoxur | 0.000 | 0.368 | 0.389 | 0.400 | 5.4% | < 30 | 92.1% | 97.2% | 50 - 150 | |
| Pyrethrin (Summe) | 0.441 | 0.978 | 1.054 | 0.488 | 13.3% | < 30 | 110.0% | 125.7% | 50 - 150 | |
| Pyridaben | 0.000 | 0.450 | 0.483 | 0.400 | 7.1% | < 30 | 112.5% | 120.8% | 50 - 150 | |
| Spinosad | 0.000 | 0.343 | 0.373 | 0.388 | 8.3% | < 30 | 88.5% | 96.2% | 50 - 150 | |
| Spiromesifen | 0.000 | 0.420 | 0.424 | 0.400 | 0.8% | < 30 | 105.1% | 105.9% | 50 - 150 | |
| Spirotetramat | 0.000 | 0.386 | 0.415 | 0.400 | 7.2% | < 30 | 96.6% | 103.8% | 50 - 150 | |
| Spiroxamine | 0.000 | 0.717 | 0.821 | 0.800 | 13.5% | < 30 | 89.7% | 102.6% | 50 - 150 | |
| Tebuconazole | 0.000 | 0.756 | 0.679 | 0.800 | 10.7% | < 30 | 94.5% | 84.9% | 50 - 150 | |
| Thiadoprid | 0.000 | 0.376 | 0.419 | 0.400 | 10.8% | < 30 | 94.0% | 104.7% | 50 - 150 | |
| Thiamethoxam | 0.000 | 0.420 | 0.435 | 0.400 | 3.5% | < 30 | 104.9% | 108.7% | 50 - 150 | |
| Trifloxystrobin | 0.000 | 0.356 | 0.398 | 0.400 | 11.0% | < 30 | 89.1% | 99.4% | 50 - 150 | |

Columbia LABORATORIES
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503-254-1794

**Report Number:** 23-008331/D004.R000
**Report Date:** 07/21/2023
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 07/14/23 13:59

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

**Laboratory Quality Control Results**

**Residual Solvents** **Batch ID:** 2309278

| Method Blank | | | | | Laboratory Control Sample | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte** | **Result** | | **LOQ** | **Notes** | **Result** | **Spike** | **Units** | **% Rec** | **Limits** | | | **Notes** |
| Propane | ND | < | 200 | | 560 | 584 | µg/g | 95.9 | 60 | - | 120 | |
| Isobutane | ND | < | 200 | | 729 | 767 | µg/g | 95.0 | 60 | - | 120 | |
| Butane | ND | < | 200 | | 725 | 782 | µg/g | 92.7 | 60 | - | 120 | |
| 2,2-Dimethylpropane | ND | < | 200 | | 895 | 939 | µg/g | 95.3 | 60 | - | 120 | |
| Methanol | ND | < | 200 | | 1520 | 1640 | µg/g | 92.7 | 60 | - | 120 | |
| Ethylene Oxide | ND | < | 30 | | 63.4 | 57.1 | µg/g | 111.0 | 60 | - | 120 | |
| 2-Methylbutane | ND | < | 200 | | 1390 | 1600 | µg/g | 86.9 | 60 | - | 120 | |
| Pentane | ND | < | 200 | | 1410 | 1620 | µg/g | 87.0 | 60 | - | 120 | |
| Ethanol | ND | < | 200 | | 1570 | 1610 | µg/g | 97.5 | 70 | - | 130 | |
| Ethyl Ether | ND | < | 200 | | 1430 | 1610 | µg/g | 88.8 | 60 | - | 120 | |
| 2,2-Dimethylbutane | ND | < | 30 | | 151 | 168 | µg/g | 89.9 | 60 | - | 120 | |
| Acetone | ND | < | 200 | | 1480 | 1620 | µg/g | 91.4 | 60 | - | 120 | |
| 2-Propanol | ND | < | 200 | | 1580 | 1600 | µg/g | 98.8 | 60 | - | 120 | |
| Ethyl Formate | ND | < | 500 | | 1290 | 1600 | µg/g | 80.6 | 70 | - | 130 | |
| Acetonitrile | ND | < | 100 | | 429 | 484 | µg/g | 88.6 | 60 | - | 120 | |
| Methyl Acetate | ND | < | 500 | | 1440 | 1610 | µg/g | 89.4 | 70 | - | 130 | |
| 2,3-Dimethylbutane | ND | < | 30 | | 138 | 162 | µg/g | 85.2 | 60 | - | 120 | |
| Dichloromethane | ND | < | 60 | | 434 | 483 | µg/g | 89.9 | 60 | - | 120 | |
| 2-Methylpentane | ND | < | 30 | | 153 | 174 | µg/g | 87.9 | 60 | - | 120 | |
| MTBE | ND | < | 500 | | 1430 | 1610 | µg/g | 88.8 | 70 | - | 130 | |
| 3-Methylpentane | ND | < | 30 | | 158 | 168 | µg/g | 94.0 | 60 | - | 120 | |
| Hexane | ND | < | 30 | | 147 | 168 | µg/g | 87.5 | 60 | - | 120 | |
| 1-Propanol | ND | < | 500 | | 1560 | 1600 | µg/g | 97.5 | 70 | - | 130 | |
| Methylethylketone | ND | < | 500 | | 1440 | 1620 | µg/g | 88.9 | 70 | - | 130 | |
| Ethyl acetate | ND | < | 200 | | 1480 | 1600 | µg/g | 92.5 | 60 | - | 120 | |
| 2-Butanol | ND | < | 200 | | 1590 | 1600 | µg/g | 99.4 | 60 | - | 120 | |
| Tetrahydrofuran | ND | < | 100 | | 463 | 514 | µg/g | 90.1 | 60 | - | 120 | |
| Cyclohexane | ND | < | 200 | | 1440 | 1600 | µg/g | 90.0 | 60 | - | 120 | |
| 2-methyl-1-propanol | ND | < | 500 | | 1640 | 1610 | µg/g | 101.9 | 70 | - | 130 | |
| Benzene | ND | < | 1 | | 3.8 | 5.12 | µg/g | 74.2 | 60 | - | 120 | |
| Isopropyl Acetate | ND | < | 200 | | 1490 | 1620 | µg/g | 92.0 | 60 | - | 120 | |
| Heptane | ND | < | 200 | | 1440 | 1610 | µg/g | 89.4 | 60 | - | 120 | |
| 1-Butanol | ND | < | 500 | | 1630 | 1600 | µg/g | 101.9 | 70 | - | 130 | |
| Propyl Acetate | ND | < | 500 | | 1440 | 1600 | µg/g | 90.0 | 70 | - | 130 | |
| 1,4-Dioxane | ND | < | 100 | | 445 | 493 | µg/g | 90.3 | 60 | - | 120 | |
| 2-Ethoxyethanol | ND | < | 30 | | 146 | 163 | µg/g | 89.6 | 60 | - | 120 | |
| Methylisobutylketone | ND | < | 500 | | 1450 | 1600 | µg/g | 90.6 | 70 | - | 130 | |
| 3-Methyl-1-butanol | ND | < | 500 | | 1600 | 1610 | µg/g | 99.4 | 70 | - | 130 | |
| Ethylene Glycol | ND | < | 200 | | 157 | 483 | µg/g | 32.5 | 60 | - | 120 | Q6 |
| Toluene | ND | < | 100 | | 433 | 493 | µg/g | 87.8 | 60 | - | 120 | |
| Isobutyl Acetate | ND | < | 500 | | 1440 | 1600 | µg/g | 90.0 | 70 | - | 130 | |
| 1-Pentanol | ND | < | 500 | | 1670 | 1600 | µg/g | 104.4 | 70 | - | 130 | |
| Butyl Acetate | ND | < | 500 | | 1430 | 1600 | µg/g | 89.4 | 70 | - | 130 | |
| Ethylbenzene | ND | < | 200 | | 851 | 969 | µg/g | 87.8 | 60 | - | 120 | |
| m,p-Xylene | ND | < | 200 | | 844 | 968 | µg/g | 87.2 | 60 | - | 120 | |
| o-Xylene | ND | < | 200 | | 861 | 976 | µg/g | 88.2 | 60 | - | 120 | |
| Cumene | ND | < | 30 | | 140 | 162 | µg/g | 86.4 | 60 | - | 120 | |
| Anisole | ND | < | 500 | | 1370 | 1610 | µg/g | 85.1 | 70 | - | 130 | |
| DMSO | ND | < | 500 | | 1670 | 1610 | µg/g | 103.7 | 70 | - | 130 | |
| 1,2-dimethoxyethane | ND | < | 50 | | 140 | 164 | µg/g | 85.4 | 70 | - | 130 | |
| Triethylamine | ND | < | 500 | | 1360 | 1600 | µg/g | 85.0 | 70 | - | 130 | |
| N,N-dimethylformamide | ND | < | 150 | | 450 | 484 | µg/g | 93.0 | 70 | - | 130 | |
| N,N-dimethylacetamide | ND | < | 150 | | 452 | 489 | µg/g | 92.4 | 70 | - | 130 | |
| Pyridine | ND | < | 50 | | 110 | 172 | µg/g | 64.0 | 70 | - | 130 | Q6 |
| Sulfolane | ND | < | 50 | | 104 | 163 | µg/g | 63.8 | 70 | - | 130 | Q6 |
| 1,2-Dichloroethane | ND | < | 1 | | 1.08 | 1 | µg/g | 108.0 | 70 | - | 130 | |
| Chloroform | ND | < | 1 | | 1.07 | 1 | µg/g | 107.0 | 70 | - | 130 | |
| Trichloroethylene | ND | < | 1 | | 1.14 | 1 | µg/g | 114.0 | 70 | - | 130 | |
| 1,1-Dichloroethane | ND | < | 1 | | 0.99 | 1 | µg/g | 99.0 | 70 | - | 130 | |

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**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 07/14/23 13:59

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

**QC - Sample Duplicate** **Sample ID: 23-008207-0001**

| 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 | |
| Methylethylketone | 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

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

| | |
|---|---|
| **Report Number:** | 23-008331/D004.R000 |
| **Report Date:** | 07/21/2023 |
| **ORELAP#:** | OR100028 |
| **Purchase Order:** | |
| **Received:** | 07/14/23 13:59 |

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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 | Quantitaion 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. |