



Certificate of Analysis

QA SAMPLE - INFORMATIONAL ONLY

1 of 3

ICAL ID: 20240729-113
Sample: CA240729-031-151
Half & Half
Strain: Half & Half
Category: Ingestible
Type: Beverage

Hop The Wave Brewing
Lic. #
SD
SD, CA 92121
Lic. #

Batch#: 072324
Batch Size Collected:
Total Batch Size:
Collected: 08/01/2024; Received: 08/01/2024
Completed: 08/01/2024

| | | | | | |
|--|---------------------------------|---------------------|-------------------------------------|--------------------------------------|----------------------|
| Moisture NT Water Activity NT | $\Delta 9$ -THC 5.15 mg/unit | CBD 5.39 mg/unit | Total Cannabinoids 10.54 mg/unit | Sum of Cannabinoids 10.54 mg/unit | Total Terpenes NT |
|--|---------------------------------|---------------------|-------------------------------------|--------------------------------------|----------------------|

| | | | |
|--------------------|--------------|-------------|-------------------|
| Summary | SOP Used | Date Tested | |
| Batch Cannabinoids | POT-PREP-002 | 08/01/2024 | Complete Complete |



Scan to see results

Cannabinoid Profile

1 Unit = can, 365.465 g. 1 mL = 1 g.

| Analyte | LOQ (mg/g) | LOD (mg/g) | % | mg/g | mg/mL | mg/unit | Analyte | LOQ (mg/g) | LOD (mg/g) | % | mg/g | mg/mL | mg/unit |
|-----------------|------------|------------|-------|------|-------|---------|----------------------------|------------|------------|-------------|-------------|-------------|--------------|
| THCa | 0.0128 | 0.0043 | ND | ND | ND | ND | CBGa | 0.0046 | 0.0015 | ND | ND | ND | ND |
| $\Delta 9$ -THC | 0.0046 | 0.0010 | 0.001 | 0.01 | 0.01 | 5.15 | CBG | 0.0046 | 0.0005 | ND | ND | ND | ND |
| $\Delta 8$ -THC | 0.0046 | 0.0014 | ND | ND | ND | ND | CBN | 0.0046 | 0.0005 | ND | ND | ND | ND |
| THCV | 0.0046 | 0.0006 | ND | ND | ND | ND | Total THC | | | 0.00 | 0.01 | 0.01 | 5.15 |
| CBDa | 0.0049 | 0.0016 | ND | ND | ND | ND | Total CBD | | | 0.00 | 0.01 | 0.01 | 5.39 |
| CBD | 0.0046 | 0.0008 | 0.001 | 0.01 | 0.01 | 5.39 | Total | | | 0.00 | 0.03 | 0.03 | 10.54 |
| CBDV | 0.0046 | 0.0004 | ND | ND | ND | ND | Sum of Cannabinoids | | | 0.00 | 0.03 | 0.03 | 10.54 |
| CBC | 0.0076 | 0.0025 | ND | ND | ND | ND | | | | | | | |

Total THC=THCa * 0.877 + d9-THC + d8-THC; Total CBD = CBDa * 0.877 + CBD. Total Cannabinoids=(Acidic Cannabinoids)*0.877+Non-acidic Cannabinoids; Sum of Cannabinoids=Acidic Cannabinoids+Non-acidic Cannabinoids. LOD= Limit of Detection, LOQ= Limit of Quantitation, ND= Not Detected, NR= Not Reported. Potency is reported on a dry weight basis. Instrumentation and analysis SOPs used: Cannabinoids:UHPLC-DAD(POT-INST-005),Moisture:Moisture Analyzer(MOISTURE-001),Water Activity:Water Activity Meter(WA-INST-002), Foreign Material:Microscope(FOREIGN-001). Density measured at 19-24 °C, Water Activity measured at 0-90% RH. All QA submitted by the client, All CA State Compliance sampled using SAMPL-SOP-001.

Terpene Profile

| Analyte | LOQ (mg/g) | LOD (mg/g) | % | mg/g | Analyte | LOQ (mg/g) | LOD (mg/g) | % | mg/g |
|---------|------------|------------|---|------|---------|------------|------------|---|------|
|---------|------------|------------|---|------|---------|------------|------------|---|------|

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-M5; samples analyzed according to SOP TERP-INST-003.



Infinite Chemical Analysis Labs
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San Diego, CA
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Lic# C8-0000047-LIC

Josh M Swider

Josh Swider
Lab Director, Managing Partner
08/01/2024

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This product has been tested by Infinite Chemical Analysis, LLC using valid testing methodologies and a quality system as required by state law. All LQC samples were performed and met the prescribed acceptance criteria in 16 CCR section 15730, pursuant to 16 CCR section 15726(e)(13). Values reported relate only to the product tested. Infinite Chemical Analysis, LLC makes no claims as to the efficacy, safety or other risks associated with any detected or non-detected levels of any compounds reported herein. This Certificate shall not be reproduced except in full, without the written approval of Infinite Chemical Analysis, LLC.



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QA SAMPLE - INFORMATIONAL ONLY

1 of 3

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Half & Half
Strain: Half & Half
Category: Ingestible
Type: Beverage

Hop The Wave Brewing
Lic. #
SD
SD, CA 92121
Lic. #

Batch#: 072324
Batch Size Collected:
Total Batch Size:
Collected: 08/01/2024; Received: 08/01/2024
Completed: 08/01/2024

| | | | | | |
|----------------------|-----------------------|-----------|--------------------------|---------------------------|----------------------|
| Moisture NT | $\Delta 9$ -THC NT | CBD NT | Total Cannabinoids NT | Sum of Cannabinoids NT | Total Terpenes NT |
| Water Activity NT | | | | | |

| Summary | SOP Used | Date Tested | |
|-------------------|------------------------|-------------|------|
| Batch | RS-PREP-001 | 07/30/2024 | Pass |
| Residual Solvents | MICRO-PREP-001 | 08/01/2024 | Pass |
| Microbials | PESTMICO-LC-PREP-001 | 07/31/2024 | Pass |
| Mycotoxins | HM-PREP-001 | 07/31/2024 | Pass |
| Heavy Metals | FM-PREP-001 | 07/29/2024 | Pass |
| Foreign Matter | PESTMICO-LC-PREP-001 / | 07/31/2024 | Pass |
| Pesticides | PEST-GC-PREP-001 | | |



Scan to see results

Cannabinoid Profile

| Analyte | LOQ (mg/g) | LOD (mg/g) | % | mg/g | Analyte | LOQ (mg/g) | LOD (mg/g) | % | mg/g |
|---------|------------|------------|---|------|---------|------------|------------|---|------|
|---------|------------|------------|---|------|---------|------------|------------|---|------|

Total THC=THCa * 0.877 + d9-THC + d8-THC; Total CBD = CBDA * 0.877 + CBD. Total Cannabinoids=(Acidic Cannabinoids)*0.877+Non-acidic Cannabinoids; Sum of Cannabinoids=Acidic Cannabinoids+Non-acidic Cannabinoids. LOD= Limit of Detection, LOQ= Limit of Quantitation, ND= Not Detected, NR= Not Reported. Potency is reported on a dry weight basis. Instrumentation and analysis SOPs used: Cannabinoids:UHPLC-DAD(POT-INST-005),Moisture:Moisture Analyzer(MOISTURE-001),Water Activity:Water Activity Meter(WA-INST-002), Foreign Material:Microscope(FOREIGN-001). Density measured at 19-24 °C, Water Activity measured at 0-90% RH. All QA submitted by the client, All CA State Compliance sampled using SAMPL-SOP-001.

Terpene Profile

| Analyte | LOQ (mg/g) | LOD (mg/g) | % | mg/g | Analyte | LOQ (mg/g) | LOD (mg/g) | % | mg/g |
|---------|------------|------------|---|------|---------|------------|------------|---|------|
|---------|------------|------------|---|------|---------|------------|------------|---|------|

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Josh M Swider

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08/01/2024

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Half & Half
Strain: Half & Half
Category: Ingestible
Type: Beverage

Hop The Wave Brewing
Lic. #
SD
SD, CA 92121
Lic. #

Batch#: 072324
Batch Size Collected:
Total Batch Size:
Collected: 08/01/2024; Received: 08/01/2024
Completed: 08/01/2024

Residual Solvent Analysis

| Category 1 | LOQ | LOD | Limit | Status | Category 2 | LOQ | LOD | Limit | Status | Category 2 | LOQ | LOD | Limit | Status | | | |
|---------------------|------|-------|-------|--------|------------|---------------|-------|--------|--------|------------|------|-------------|-------|--------|-------|------|------|
| | µg/g | µg/g | µg/g | µg/g | | µg/g | µg/g | µg/g | µg/g | | µg/g | µg/g | µg/g | µg/g | | | |
| 1,2-Dichloro-Ethane | ND | 0.264 | 0.088 | 1 | Pass | Acetone | ND | 51.246 | 0.716 | 5000 | Pass | n-Hexane | ND | 0.281 | 0.027 | 290 | Pass |
| Benzene | ND | 0.052 | 0.017 | 1 | Pass | Acetonitrile | ND | 0.42 | 0.14 | 410 | Pass | Isopropanol | ND | 2.86 | 0.614 | 5000 | Pass |
| Chloroform | ND | 0.076 | 0.025 | 1 | Pass | Butane | ND | 4.849 | 0.748 | 5000 | Pass | Methanol | ND | 2.602 | 0.867 | 3000 | Pass |
| Ethylene Oxide | ND | 0.579 | 0.179 | 1 | Pass | Ethanol | 217.8 | 7.575 | 2.525 | 5000 | Pass | Pentane | ND | 5.075 | 1.692 | 5000 | Pass |
| Methylene-Chloride | ND | 0.729 | 0.08 | 1 | Pass | Ethyl-Acetate | ND | 2.288 | 0.175 | 5000 | Pass | Propane | ND | 9.709 | 3.236 | 5000 | Pass |
| Trichloroethene | ND | 0.145 | 0.028 | 1 | Pass | Ethyl-Ether | ND | 2.869 | 0.389 | 5000 | Pass | Toluene | ND | 0.864 | 0.067 | 890 | Pass |
| | | | | | | Heptane | ND | 2.859 | 0.496 | 5000 | Pass | Xylenes | ND | 2.572 | 0.326 | 2170 | Pass |

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: HS-GC-MS; samples analyzed according to SOP RS-INST-003.

Heavy Metal Screening

| | LOQ | LOD | Limit | Status | |
|---------|------|-------|-------|--------|------|
| | µg/g | µg/g | µg/g | µg/g | |
| Arsenic | ND | 0.009 | 0.003 | 1.5 | Pass |
| Cadmium | ND | 0.002 | 0.001 | 0.5 | Pass |
| Lead | ND | 0.004 | 0.001 | 0.5 | Pass |
| Mercury | ND | 0.014 | 0.005 | 1.5 | Pass |

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: ICP-MS; samples analyzed according to SOP HM-INST-003.

Microbiological Screening

| | Limit | Result | Status |
|-----------------------|-------|--------------|--------|
| | CFU/g | CFU/g | |
| Aspergillus flavus | | Not Detected | Pass |
| Aspergillus fumigatus | | Not Detected | Pass |
| Aspergillus niger | | Not Detected | Pass |
| Aspergillus terreus | | Not Detected | Pass |
| STEC | | Not Detected | Pass |
| Salmonella SPP | | Not Detected | Pass |

ND=Not Detected. Analytical instrumentation used:qPCR; samples analyzed according to SOP MICRO-INST-001.



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Half & Half
Strain: Half & Half
Category: Ingestible
Type: Beverage

Hop The Wave Brewing
Lic. #
SD
SD, CA 92121
Lic. #

Batch#: 072324
Batch Size Collected:
Total Batch Size:
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Completed: 08/01/2024

Chemical Residue Screening

| Category 1 | LOQ | LOD | Status | Mycotoxins | LOQ | LOD | Limit | Status | | |
|------------------|------|-------|--------|------------|------------------|-------|-------|--------|--------|------|
| | µg/g | µg/g | µg/g | | µg/kg | µg/kg | µg/kg | µg/kg | | |
| Aldicarb | ND | 0.065 | 0.022 | Pass | B1 | ND | 7.88 | 2.6 | Tested | |
| Carbofuran | ND | 0.030 | 0.009 | Pass | B2 | ND | 6.18 | 2.04 | Tested | |
| Chlordane | ND | 0.075 | 0.025 | Pass | G1 | ND | 8.99 | 2.97 | Tested | |
| Chlorfenapyr | ND | 0.075 | 0.025 | Pass | G2 | ND | 5.72 | 1.89 | Tested | |
| Chlorpyrifos | ND | 0.053 | 0.018 | Pass | Ochratoxin A | ND | 11.72 | 3.87 | 20 | Pass |
| Coumaphos | ND | 0.056 | 0.018 | Pass | Total Aflatoxins | ND | | 20 | Pass | |
| Daminozide | ND | 0.079 | 0.026 | Pass | | | | | | |
| Dichlorvos | ND | 0.067 | 0.022 | Pass | | | | | | |
| Dimethoate | ND | 0.036 | 0.012 | Pass | | | | | | |
| Ethoprophos | ND | 0.053 | 0.017 | Pass | | | | | | |
| Etofenprox | ND | 0.030 | 0.008 | Pass | | | | | | |
| Fenoxycarb | ND | 0.043 | 0.014 | Pass | | | | | | |
| Fipronil | ND | 0.045 | 0.015 | Pass | | | | | | |
| Imazalil | ND | 0.047 | 0.016 | Pass | | | | | | |
| Methiocarb | ND | 0.047 | 0.016 | Pass | | | | | | |
| Mevinphos | ND | 0.042 | 0.014 | Pass | | | | | | |
| Paclbutrazol | ND | 0.040 | 0.013 | Pass | | | | | | |
| Parathion Methyl | ND | 0.024 | 0.008 | Pass | | | | | | |
| Propoxur | ND | 0.047 | 0.016 | Pass | | | | | | |
| Spiroxamine | ND | 0.032 | 0.011 | Pass | | | | | | |
| Thiacloprid | ND | 0.042 | 0.014 | Pass | | | | | | |

| Category 2 | LOQ | LOD | Limit | Status | Category 2 | LOQ | LOD | Limit | Status | | |
|---------------------|------|-------|-------|--------|------------|-------------------------|------|-------|--------|-----|------|
| | µg/g | µg/g | µg/g | µg/g | | µg/g | µg/g | µg/g | µg/g | | |
| Abamectin | ND | 0.030 | 0.010 | 0.3 | Pass | Kresoxim Methyl | ND | 0.038 | 0.012 | 1 | Pass |
| Acephate | ND | 0.050 | 0.016 | 5 | Pass | Malathion | ND | 0.035 | 0.012 | 5 | Pass |
| Acequinocyl | ND | 0.059 | 0.019 | 4 | Pass | Metalaxyl | ND | 0.031 | 0.010 | 15 | Pass |
| Acetamiprid | ND | 0.044 | 0.015 | 5 | Pass | Methomyl | ND | 0.048 | 0.016 | 0.1 | Pass |
| Azoxystrobin | ND | 0.029 | 0.010 | 40 | Pass | Myclobutanil | ND | 0.055 | 0.018 | 9 | Pass |
| Bifenazate | ND | 0.035 | 0.012 | 5 | Pass | Naled | ND | 0.051 | 0.017 | 0.5 | Pass |
| Bifenthrin | ND | 0.040 | 0.013 | 0.5 | Pass | Oxamyl | ND | 0.046 | 0.015 | 0.3 | Pass |
| Boscalid | ND | 0.060 | 0.020 | 10 | Pass | Pentachloronitrobenzene | ND | 0.054 | 0.018 | 0.2 | Pass |
| Captan | ND | 0.358 | 0.120 | 5 | Pass | Permethrin | ND | 0.030 | 0.008 | 20 | Pass |
| Carbaryl | ND | 0.049 | 0.016 | 0.5 | Pass | Phosmet | ND | 0.038 | 0.012 | 0.2 | Pass |
| Chlorantraniliprole | ND | 0.063 | 0.021 | 40 | Pass | Piperonyl Butoxide | ND | 0.030 | 0.008 | 8 | Pass |
| Clofentezine | ND | 0.039 | 0.013 | 0.5 | Pass | Prallethrin | ND | 0.068 | 0.023 | 0.4 | Pass |
| Cyfluthrin | ND | 0.056 | 0.019 | 1 | Pass | Propiconazole | ND | 0.059 | 0.019 | 20 | Pass |
| Cypermethrin | ND | 0.044 | 0.015 | 1 | Pass | Pyrethrins | ND | 0.030 | 0.004 | 1 | Pass |
| Diazinon | ND | 0.030 | 0.006 | 0.2 | Pass | Pyridaben | ND | 0.035 | 0.012 | 3 | Pass |
| Dimethomorph | ND | 0.042 | 0.014 | 20 | Pass | Spinetoram | ND | 0.030 | 0.006 | 3 | Pass |
| Etoxazole | ND | 0.030 | 0.008 | 1.5 | Pass | Spinosad | ND | 0.030 | 0.004 | 3 | Pass |
| Fenhexamid | ND | 0.039 | 0.013 | 10 | Pass | Spiromesifen | ND | 0.042 | 0.014 | 12 | Pass |
| Fenpyroximate | ND | 0.030 | 0.010 | 2 | Pass | Spirotetramat | ND | 0.041 | 0.013 | 13 | Pass |
| Flonicamid | ND | 0.081 | 0.027 | 2 | Pass | Tebuconazole | ND | 0.044 | 0.014 | 2 | Pass |
| Fludioxonil | ND | 0.046 | 0.015 | 30 | Pass | Thiamethoxam | ND | 0.055 | 0.018 | 4.5 | Pass |
| Hexythiazox | ND | 0.078 | 0.026 | 2 | Pass | Trifloxystrobin | ND | 0.031 | 0.010 | 30 | Pass |
| Imidacloprid | ND | 0.071 | 0.023 | 3 | Pass | | | | | | |

Other Analyte(s):

NR= Not Reported (no analysis was performed), ND= Not Detected (the concentration is less than the Limit of Detection (LOD)). Analytical instrumentation used: LC-MS-MS & GC-MS-MS; samples analyzed according to SOPs PESTMYCO-LC-INST-004 and PEST-GC-INST-003.



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Josh M Swider

Josh Swider
Lab Director, Managing Partner
08/01/2024

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Certificate of Analysis



| | | | |
|-------------|--------------|------------------------|--|
| Sample Name | Half & Half | ICAL ID | 20240729-113 |
| Batch | 72324 | Registering Laboratory | San Diego |
| Client | Hop the Wave | Contact | Customer Service Team |
| Address | | Address | 8312 Miramar Mall San Diego, CA 92121 |
| Telephone | | Telephone | (858) 623-2740 |
| Email | | Email | questions@infinitecal.com |
| Sampler | | COA Issue Date | August 08, 2024 |

This report supersedes any previous revision with this reference. This document must not be reproduced, except in full. If samples were provided by the customer, results apply only to the samples 'as received' and responsibility for representative sampling rests with the customer. Water results are reported on an 'as is' basis. Infinite Chemical Analysis Labs, LLC makes no claims pertaining to the efficacy, safety, or other risks associated with any detected or non-detected levels of any compounds reported herein.

Definitions

| <: Less Than | >: Greater Than | RP: Result Pending | MPN: Most Probable Number | CFU: Colony Forming Units | ---: Not Requested | NA: Not Applicable | ND: Not Detected | MDL: Method Detection Limit | LCMRL: Lowest Concentration Minimum Reporting Level | NT: Not Tested | ~: Estimated | TBA: To Be Advised | TNTC: Too numerous to count |

Microbial Plate Panel

| Analyte | CFU/g | MDL | Client Limit ¹ | Status ² |
|---------------------------|-------|-----|---------------------------|---------------------|
| Aerobic (APC) | <MDL | 10 | --- | --- |
| Coliforms | <MDL | 10 | --- | --- |
| <i>E. coli</i> | <MDL | 10 | --- | --- |
| Yeast & Mold | <MDL | 10 | --- | --- |
| <i>Enterobacteriaceae</i> | NT | 10 | --- | --- |
| <i>Salmonella spp.</i> | NT | 10 | --- | --- |
| <i>Listeria spp.</i> | <MDL | 10 | --- | --- |

Analysis Location

All analyses were completed by Infinite Chemical Analysis – San Diego.

Analysis Comments

Method ID: MICRO-PLATE-001

¹Client limit is self-selected and will be replaced by official CA state limits when they become available.

²Status of Pass/Fail based on client limit selected.

Josh M Swider

Josh Swider
Lab Director, CEO
August 08, 2024