

ANALYZED BY:

Anresco Laboratories
1375 Van Dyke Avenue,
San Francisco, CA 94124
C 8- 0000052- L I C

CUSTOMER:

Surly Brewing Company
4811 Dusharme Dr
Brooklyn Center, MN 55429



SAMPLE INFORMATION

Sample No.: 1222381
Product Name: Mary Jones Root Beer
M a t r i x: Edible (Carbonated Beverage)
Lot #: MT0024 24152

Date Collected: 06/03/2024
Date Received: 06/03/2024
Date Reported: 06/05/2024

TEST SUMMARY

Cannabinoid Profile: ✔ Pass Microbiological Screen: ✔ Pass
Pesticide Residue Screen: ✔ Pass Residual Solvent Screen: ✔ Pass
Heavy Metal Screen: ✔ Pass Foreign Material: ✔ Pass
Mycotoxin Screen: ✔ Pass

Cannabinoid Profile ✔ Pass

06/05/2024

Method: MF-CHEM-15

Ins trume ntLiquid Chromatography Diode Array Detector (LC-DAD)

Cannabinoid	mg/g	%	mg /ml	mg /se r v i n g	mg/package	Labeled mg/serving	% Difference (mg/ serving)	S t a t u s
Δ8-THC	ND	ND	ND	ND	ND	-	-	-
Δ9-THC	0.0285	0.00285	0.029	5.29	10.57	5	5.73	Pass
Δ9-THCA	ND ND	ND	9 ND	ND	ND	-	----	----
THCV	ND ND	ND	ND	ND	ND	-	----	----
THCVA	ND ND	ND	ND	ND	ND	-	----	----
CBD	ND ND	ND	ND	ND	ND	-	---	---
CBDA	ND ND	ND	ND	ND	ND	-		
CBC	ND	ND	ND	ND	ND	-		
CBCA	0.0285	ND	ND	ND	ND	-		
CBDV	ND	ND	ND	ND	ND	-		
CBG	0.0285	ND	ND	ND	ND	-		
CBGA	0.0285	ND	ND	ND	ND	-		
CBN	185.496	ND	ND	ND	ND	-		
Total THC	0	0.00285	0.029	5.29	10.57	-		
Total CBD	370.992	0.00285	9 ND	ND	ND	-		
Total Cannabinoids	1.048	0.00285	0.029	5.29	10.57	-		
Sum of Cannabinoids			9	5.29	10.57	-		
Serving Weight (g)			0.029					
Package Weight (g)			9					
g/ml Conversion Factor								

Total THC = Δ8-THC + Δ9-THC + (0.877 * THCA)

Total CBD = CBD + (0.877 * CBDA)

Total Cannabinoids = Σ (neutral cannabinoids) + [0.877 * Σ (acidic cannabinoids)]

Microbiological Screen ✔ Pass

06/05/2024

Analyte	Met h o d	Findings	Status
Salmonella	AOAC 2016.01	Negative/25g	Pass
STEC	3M MDS STEC	Negative/25g	Pass

Pesticide Residue Screen ✔ Pass

06/05/2024

Method: MF-CHEM-13

Ins trume ntLiquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Abamectin	0.04/0.10	ND	0.3	Pass
Acephate	0.02/0.06	ND	5.0	Pass
Acequinocyl	0.04/0.10	ND	4.0	Pass
Acetamiprid	0.017/0.05	ND	5.0	Pass
Aldicarb	0.02/0.06	ND	0.02	Pass
Azoxystrobin	0.02/0.06	ND	40.0	Pass

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Bifenazate	0.02/0.06	ND	5.0	Pass
Bifenthrin	0.04/0.10	ND	0.5	Pass
Boscalid	0.02/0.06	ND	10.0	Pass
Captan	0.2/0.6	ND	5.0	Pass
Carbaryl	0.02/0.06	ND	0.5	Pass
Carbofuran	0.017/0.05	ND	0.017	Pass
Chlorantraniliprole	0.02/0.06	ND	40.0	Pass
Chlordane	0.02/0.06	ND	0.02	Pass
Chlorfenapyr	0.02/0.06	ND	0.02	Pass
Chlorpyrifos	0.02/0.06	ND	0.02	Pass
Clofentezine	0.02/0.06	ND	0.5	Pass
Coumaphos	0.02/0.06	ND	0.02	Pass
Cyfluthrin	0.10/0.30	ND	1.0	Pass
Cypermethrin	0.10/0.30	ND	1.0	Pass
Daminozide	0.017/0.05	ND	0.017	Pass
DDVP (Dichlorvos)	0.013/0.04	ND	0.013	Pass
Diazinon	0.017/0.05	ND	0.2	Pass
Dimethoate	0.017/0.05	ND	0.017	Pass
Dimethomorph	0.017/0.05	ND	20.0	Pass
Ethoprop(hos)	0.02/0.06	ND	0.02	Pass
Etofenprox	0.02/0.06	ND	0.02	Pass
Etoxazole	0.02/0.06	ND	1.5	Pass
Fenhexamid	0.017/0.05	ND	10.0	Pass
Fenoxycarb	0.02/0.06	ND	0.02	Pass
Fenpyroximate	0.02/0.06	ND	2.0	Pass
Fipronil	0.02/0.06	ND	0.02	Pass
Flonicamid	0.02/0.06	ND	2.0	Pass
Fludioxonil	0.02/0.06	ND	30.0	Pass
Hexythiazox	0.02/0.06	ND	2.0	Pass
Imazalil	0.02/0.06	ND	0.02	Pass
Imidacloprid	0.02/0.06	ND	3.0	Pass
Kresoxim Methyl	0.02/0.06	ND	1.0	Pass
Malathion	0.017/0.05	ND	5.0	Pass
Metalaxyl	0.017/0.05	ND	15.0	Pass
Methiocarb	0.02/0.06	ND	0.02	Pass
Methomyl	0.013/0.04	ND	0.1	Pass
Methyl parathion	0.02/0.06	ND	0.02	Pass
Mevinphos	0.02/0.06	ND	0.02	Pass
Myclobutanil	0.02/0.06	ND	9.0	Pass
Naled	0.017/0.05	ND	0.5	Pass
Oxamyl	0.013/0.04	ND	0.2	Pass
Paclbutrazol	0.02/0.06	ND	0.02	Pass
Pentachloronitrobenzene	0.017/0.05	ND	0.2	Pass
Permethrins	0.10/0.30	ND	20.0	Pass
Phosmet	0.02/0.06	ND	0.2	Pass
Piperonyl Butoxide	0.02/0.06	ND	8.0	Pass
Prallethrin	0.04/0.10	ND	0.4	Pass
Propiconazole	0.02/0.06	ND	20.0	Pass
Propoxur	0.013/0.04	ND	0.013	Pass
Pyrethrins	0.15/0.50	ND	1.0	Pass
Pyridaben	0.017/0.05	ND	3.0	Pass
Spinetoram	0.02/0.06	ND	3.0	Pass
Spinosad	0.02/0.06	ND	3.0	Pass
Spiromesifen	0.04/0.10	ND	12.0	Pass
Spirotetramat	0.02/0.06	ND	13.0	Pass
Spiroxamine	0.017/0.05	ND	0.017	Pass
Tebuconazole	0.02/0.06	ND	2.0	Pass
Thiacloprid	0.013/0.04	ND	0.013	Pass
Thiamethoxam	0.02/0.06	ND	4.5	Pass
Trifloxystrobin	0.02/0.06	ND	30.0	Pass

Residual Solvent Screen ✔ Pass

06/05/2024

Method: MF-CHEM-32

Ins trume nt:Gas Chromatography Mass Spectrometry (GC/MS)

Analyte	LOD/LOQ (ppm)	Findings (ppm)	Limit (ppm)	Status
1,2-Dichloroethane	0.5/0.5	ND ND	1	Pass
Acetone	57/200	ND ND	5000	Pass
Acetonitrile	56/200	ND ND	410	Pass
Benzene	0.5/0.5	1250.0	1	Pass
n-Butane	45/200	0 ND	5000	Pass
Chloroform	0.5/0.5	ND ND	1	Pass
Ethanol	37/200	ND ND	5000	Pass
Ethyl acetate	38/200	ND	5000	Pass
Ethyl ether	37/200	<LOQ	5000	Pass
Ethylene oxide	0.1/0.5	ND ND	1	Pass
n-Heptane	135/200	ND ND	5000	Pass
n-Hexane	49/200	ND ND	290	Pass
Isopropyl alcohol	57/200	ND ND	5000	Pass
Methanol	37/200	ND ND	3000	Pass
Methylene chloride	0.1/0.5	ND ND	1	Pass
n-Pentane	37/200	ND ND	5000	Pass
Propane	72/200	ND ND	5000	Pass
Toluene	49/200	ND ND	890	Pass
Total xylenes (ortho-, meta-, para-)	58/200	ND ND	2170	Pass
Trichloroethylene	0.5/0.5	ND ND	1	Pass

Heavy Metal Screen ✔ Pass

06/05/2024

Method: MF-CHEM-16

Ins trume nt:Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Arsenic	0.02/0.05	ND	1.5	Pass
Cadmium	0.02/0.05	ND	0.5	Pass
Mercury	0.02/0.05	ND	3	Pass
Lead	0.02/0.125	ND	0.5	Pass

Foreign Material ✔ Pass

06/05/2024

Method: MF-MACRO-5

Analyte	Findings	Limit	Status
Sand, Soils, Cinders, and Dirt	ND	25%	Pass
Mold	ND	25%	Pass
Imbedded Foreign Material	ND	25% 1	Pass
Insect Fragment	ND	per 3g 1	Pass
Hair	ND	per 3g 1	Pass
Mammalian Excreta	ND	per 3g	Pass

Mycotoxin Screen ✔ Pass

06/05/2024

Method: MF-CHEM-13

Ins trume nt:Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

Analyte	LOD/LOQ (µg/kg)	Findings (µg/kg)	Limit (µg/kg)	Status
Aflatoxin B1	2/5	ND	- -	----
Aflatoxin B2	2/5	ND	- -	Pass
Aflatoxin G1	2/5	ND	20	Pass
Aflatoxin G2	2/5	ND	20	Pass
Total Aflatoxins	8/20	ND		
Ochratoxin A	6/18	ND		

ND = None Detected
LOD = Limit of Detection
LOQ = Limit of Quantitation

Reported by



Vu Lam
Lab Co Director