

Prepared for:

Lupulin Brewing Company

570 Humboldt Drive, Ste. 107
Big Lake, MN USA 55309


Cherry Lime Blue Raspberry Smazey

Batch ID or Lot Number: SMZ3	Test: Potency	Reported: 16Nov2022	USDA License: N/A
Matrix: Unit	Test ID: T000227856	Started: 15Nov2022	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD)	Received: 15Nov2022	Status: N/A

Cannabinoids

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.215	0.653	ND	ND	# of Servings = 1, Sample Weight=473.95g
Cannabichromenic Acid (CBCA)	0.197	0.597	ND	ND	
Cannabidiol (CBD)	0.542	1.769	ND	ND	
Cannabidiolic Acid (CBDA)	0.556	1.815	ND	ND	
Cannabidivarin (CBDV)	0.128	0.418	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.232	0.757	ND	ND	
Cannabigerol (CBG)	0.122	0.371	<LOQ	<LOQ	
Cannabigerolic Acid (CBGA)	0.510	1.549	ND	ND	
Cannabinol (CBN)	0.159	0.483	ND	ND	
Cannabinolic Acid (CBNA)	0.348	1.057	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.608	1.846	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.552	1.676	12.200	0.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.489	1.485	ND	ND	
Tetrahydrocannabivarin (THCV)	0.111	0.337	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.432	1.310	ND	ND	
Total Cannabinoids			12.200	0.00	
Total Potential THC			12.200	0.00	
Total Potential CBD			ND	ND	

Final Approval



Karen Winternheimer
16Nov2022
02:01:00 PM MST

PREPARED BY / DATE



Sam Smith
16Nov2022
02:02:00 PM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/9bb26fbd-7429-4437-b6bd-88ce0482a226>

Definitions

% = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method).
Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential
Delta 9-THC = Delta 9-THC + (Delta 9-THCa *(0.877)) and Total CBD = CBD + (CBDa *(0.877)).

Testing results are based solely upon the sample submitted to SC Laboratories, Inc., in the condition it was received. SC Laboratories, Inc., warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of SC Laboratories, Inc. ISO/IEC 17025:2017 Accredited by A2LA.



Cert #4329.02

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Prepared for:

Lupulin Brewing Company


570 Humboldt Drive, Ste. 107
Big Lake, MN USA 55309

Smazey - Cherry Lime Blue Raspberry

Batch ID or Lot Number: SMZ3	Test: Heavy Metals	Reported: 03Feb2023	USDA License: NA
Matrix: Unit	Test ID: T000233134	Started: 02Feb2023	Sampler ID: NA
	Method(s): TM19 (ICP-MS): Heavy Metals	Received: 31Jan2023	Status: NA

Heavy Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.06 - 6.22	ND	
Cadmium	0.06 - 6.37	ND	
Mercury	0.06 - 6.11	ND	
Lead	0.06 - 6.45	ND	

Final Approval



Sam Smith
03Feb2023
06:55:00 AM MST

PREPARED BY / DATE



Karen Winternheimer
03Feb2023
07:00:00 AM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/8a2b006d-5075-4342-a33f-43f70426d927>

Definitions

ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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Prepared for:
Lupulin Brewing Company
570 Humboldt Drive, Ste. 107
Big Lake, MN USA 55309

Smazey - Cherry Lime Blue Raspberry

Batch ID or Lot Number: SMZ3	Test: Pesticides	Reported: 03Feb2023	USDA License: NA
Matrix: Concentrate	Test ID: T000233132	Started: 01Feb2023	Sampler ID: NA
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 31Jan2023	Status: NA

Pesticides	Dynamic Range (ppb)	Result (ppb)	Pesticides	Dynamic Range (ppb)	Result (ppb)
Abamectin	292 - 2707	ND	Malathion	289 - 2718	ND
Acephate	45 - 2767	ND	Metalaxyl	44 - 2730	ND
Acetamiprid	44 - 2758	ND	Methiocarb	45 - 2709	ND
Azoxystrobin	43 - 2747	ND	Methomyl	41 - 2762	ND
Bifenazate	39 - 2732	ND	MGK 264 1	168 - 1637	ND
Boscalid	35 - 2700	ND	MGK 264 2	120 - 1139	ND
Carbaryl	45 - 2731	ND	Myclobutanil	43 - 2701	ND
Carbofuran	44 - 2717	ND	Naled	42 - 2772	ND
Chlorantraniliprole	43 - 2666	ND	Oxamyl	43 - 2764	ND
Chlorpyrifos	50 - 2713	ND	Paclobutrazol	40 - 2735	ND
Clofentezine	270 - 2767	ND	Permethrin	280 - 2765	ND
Diazinon	276 - 2752	ND	Phosmet	40 - 2744	ND
Dichlorvos	278 - 2771	ND	Prophos	293 - 2662	ND
Dimethoate	41 - 2761	ND	Propoxur	42 - 2724	ND
E-Fenpyroximate	289 - 2734	ND	Pyridaben	293 - 2751	ND
Etofenprox	42 - 2774	ND	Spinosad A	35 - 2244	ND
Etoxazole	298 - 2712	ND	Spinosad D	49 - 498	ND
Fenoxycarb	42 - 2767	ND	Spiromesifen	281 - 2750	ND
Fipronil	51 - 2704	ND	Spirotetramat	272 - 2754	ND
Fonicamid	50 - 2802	ND	Spiroxamine 1	20 - 1148	ND
Fludioxonil	288 - 2756	ND	Spiroxamine 2	21 - 1557	ND
Hexythiazox	41 - 2761	ND	Tebuconazole	296 - 2732	ND
Imazalil	263 - 2758	ND	Thiacloprid	42 - 2746	ND
Imidacloprid	44 - 2755	ND	Thiamethoxam	42 - 2770	ND
Kresoxim-methyl	41 - 2798	ND	Trifloxystrobin	44 - 2749	ND

Final Approval



Karen Winternheimer
03Feb2023
09:29:00 AM MST

PREPARED BY / DATE



Sam Smith
03Feb2023
09:39:00 AM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/8e28bda2-e12f-4271-aafa-89e776d2944f>

Definitions

ND = None Detected (defined by dynamic range of the method)
Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range
ppb = Parts Per Billion

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Prepared for:

Lupulin Brewing Company

570 Humboldt Drive, Ste. 107
Big Lake, MN USA 55309

Smazey - Cherry Lime Blue Raspberry

Batch ID or Lot Number: SMZ3	Test: Microbial Contaminants	Reported: 03Feb2023	USDA License: NA
Matrix: Finished Product	Test ID: T000233133	Started: 31Jan2023	Sampler ID: NA
	Method(s): TM25 (PCR) TM24, TM26, TM27 (Culture Plating)	Received: 31Jan2023	Status: NA

Microbial Contaminants

Contaminants	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
<i>Salmonella</i>	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 ¹ CFU/g	1.0x10 ⁻² - 1.5x10 ⁻⁴	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 ² CFU/g	1.0x10 ⁻³ - 1.5x10 ⁻⁵	None Detected	
Total Coliforms*	TM27: Culture Plating	10 ¹ CFU/g	1.0x10 ⁻² - 1.5x10 ⁻⁴	None Detected	

Final Approval



Brett Hudson
03Feb2023
02:28:00 PM MST

PREPARED BY / DATE



Eden Thompson-Wright
03Feb2023
04:39:00 PM MST

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/97b6c6b9-c187-444e-ad9f-172a0b38821b>

Definitions

* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10² = 100 CFU, 10⁻³ = 1,000 CFU, 10⁻⁴ = 10,000 CFU, 10⁻⁵ = 100,000 CFU
CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection
ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation
STEC = Shiga Toxin-Producing E. coli

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