

# Certificate of Quality Assurance

**PRODUCT NAME:** 25 mg Softgels with Melatonin

**PRODUCT STRENGTH:** 25 mg PRHO, 1mg Melatonin

**LOT NUMBER:** SG25M-T222

**MANUFACTURER LOT NUMBER:** VG071719GC5

**DATE OF MANUFACTURE:** 9/25/2019

*Expiration date is 18 months under sealed conditions.*

**DATE OF ANALYSIS:** 5/29/2019

**ACTIVE INGREDIENTS:** Phytocannabinoid-Rich Hemp Oil, Melatonin

**INACTIVE INGREDIENTS:** Polysorbate Emusifiers, Medium Chain Triglycerides (MCT Oil), Beta-Caryophyllene **Gelatin Shell:** 150 Bloom Bone Gelatin, Water, Glycerin, Sorbitol

## Physical Attributes of Raw Hemp Oil

Attribute	Acceptance Criteria	Result
Appearance	Viscous Dark Amber Oil Possible Crystal Formation	Conforms
Aroma	Characteristic Hemp Aroma	Conforms
Dissolution	Not Cloudy or Turbid, Characteristic Color	Conforms
Microbial Testing	Total Aerobic Count <2000 cfu/g Total Yeast and Mold <2000 cfu/g	Conforms

## Cannabinoid Potency

Cannabinoid	Weight %
CBD	4.26
CBG	<0.03
CBN	<0.03
THC	ND
CBC	<0.03
THC-A	ND
CBD-A	<0.03

## Pesticides\*

Compound	Result	Compound	Result
Acequinocil	ND	Spinosad	ND
Pyrethrium	ND	Spirotetramat	ND
Spiromesifin	ND	Bifenazate	ND
Abamectin	ND	Fenoxycarb	ND
Imidacloprid	ND	Paclobutrazol	ND

## Terpene Results\*

Compound	Weight %	Compound	Weight %
$\beta$ -Bisabolene	1.0-3.0	Camphene	0.1-0.2
$\beta$ -Farnesene	1.0-2.0	E-Farnesene	0.1-0.2
Gualol	0.5-2.0	Farnesol	0.1-0.2
$\beta$ -Maaliene	0.5-2.0	$\alpha$ -Bisabolol	< 0.1
Calarene	0.5-1.5	p-Cymene	< 0.1
$\beta$ -Caryophyllene	0.1-1.0	Linalool	< 0.1
$\alpha$ -Humulene	0.1-1.0	Myrcene	< 0.1
Cadinene	0.1-1.0	Phytol	< 0.1
$\alpha$ -Gurjunene	0.1-0.5	Isopulegol	< 0.1
d-Limonene	0.1-0.5	Terpinene	< 0.1
Nerolidol	0.1-0.5	Geraniol	< 0.1
$\alpha$ -Pinene	0.1-0.5	Myrcene	< 0.1
Aristolene	0.1-0.3	$\gamma$ -Terpinene	< 0.1
Eucalyptol	0.1-0.2	$\delta$ -3-Carene	< 0.1

## Residual Solvents\*

Solvent	Weight %
Acetone	Compliant with USP<467>
Butane	Compliant with USP<467>
Ethanol	Compliant with USP<467>
Hexane	Compliant with USP<467>
Isobutane	Compliant with USP<467>
Isopropanol	Compliant with USP<467>
Pentane	Compliant with USP<467>

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## Heavy Metals\*

Metal	Result
Cadmium	Compliant with USP<233>
Lead	Compliant with USP<233>
Arsenic	Compliant with USP<233>
Mercury	Compliant with USP<233>

## Analysis Results for Finished Product\*\*

Attribute	Acceptance Criteria	Result
Appearance	Light Yellow Soft Gelatin Capsule	Conforms
Aroma	Characteristic	Conforms
Cannabinoid Content	95% to 110% of Label Claim	Conforms
THC Content	None Detected	Conforms

\* Results based on testing of multiple batches of hemp oil raw material.

\*\* As obtained from supplier COA.

Quality Certified by:

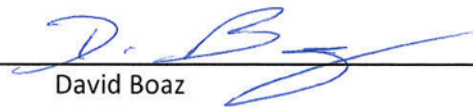


Matthew Plenert, Ph.D  
Head Chemist and Laboratory Manager

10-3-19

Date

QC Unit released by:



David Boaz  
QC Manager

10-3-19

Date



# CERTIFICATE OF ANALYSIS



## SAMPLE INFORMATION

Sample Name: Soft Gel Melatonin  
Sample Id: 139269  
Collected: 09/27/2019 10:38  
Serving Size: 1 capsule / 427.2mg  
Density: 1.01 g/ml

Sample Matrix: Edible  
Batch Id: 5G25M-T222  
Received: 09/27/2019 10:40  
Servings Per Pkg: 1  
Overall Result: **Pass**

## CULTIVATOR INFO

Business Name:  
City:  
Zip Code: n/a

Street Address:  
State:  
License:

## CANNABINOID ANALYSIS

**i** Total THC, CBD value(s) have been decarboxylated.

TOTAL THC: ND per serving (ND) (ND)  
TOTAL CBD: 26.34 mg per serving (61.66 mg/mL) (6.105 %)  
TOTAL CANNABINOIDS: 26.34 mg per serving (61.66 mg/mL) (6.105 %)

TEST TYPE RESULT: N/A  
UNIT OF MEASUREMENT: Milligrams per Milliliter(mg/mL)

ANALYTE	RESULT	LOD	LLOQ	ANALYTE	RESULT	LOD	LLOQ
D9THC	ND	0.2500	0.5000	D8THC	ND	0.2500	0.5000
CBG	ND	0.2500	0.5000	CBC	ND	0.2500	0.5000
THCv	ND	0.2500	0.5000	CBD	61.66 mg/mL (6.105 %)	0.2500	0.5000
CBN	ND	0.2500	0.5000	CBDv	<1 mg/ml (<1 mg/ml)	0.2500	0.5000
THCa	ND	0.2500	0.5000	CBGa	ND	0.2500	0.5000
CBDa	ND	0.2500	0.5000				

## ADDITIONAL INFORMATION

Method: SOP-TECH-001  
Instrument: UPLC-DAD

Sample Prepped 10/03/2019 09:32  
Sample Analyzed 10/03/2019 09:53

Sample Approved 10/03/2019 12:23





# CERTIFICATE OF ANALYSIS

## CHEMICAL RESIDUE ANALYSIS

TEST TYPE RESULT: **Pass**  
 UNIT OF MEASUREMENT: **Micrograms per Gram(ug/g)**

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Abamectin	ND	0.0200	0.0400	0.3000 <b>Pass</b>	Acephate	ND	0.0200	0.0400	5.000 <b>Pass</b>
Acequinocyl	ND	0.0200	0.0400	4.000 <b>Pass</b>	Acetamidrid	ND	0.0200	0.0400	5.000 <b>Pass</b>
Aldicarb	ND	0.0200	0.0400	0.0 <b>Pass</b>	Azoxystrobin	ND	0.0200	0.0400	40.00 <b>Pass</b>
Bifenazate	ND	0.0200	0.0400	5.000 <b>Pass</b>	Bifenthrin	ND	0.0200	0.0400	0.5000 <b>Pass</b>
Boscalid	ND	0.0200	0.0400	10.00 <b>Pass</b>	Carbaryl	ND	0.0200	0.0400	0.5000 <b>Pass</b>
Carbofuran	ND	0.0200	0.0400	0.0 <b>Pass</b>	Chlorantranilprole	ND	0.0200	0.0400	40.00 <b>Pass</b>
Chlorfenapyr	ND	0.0200	0.0400	0.0 <b>Pass</b>	Chlorpyrifos	ND	0.0200	0.0400	0.0 <b>Pass</b>
Clofentezine	ND	0.0200	0.0400	0.5000 <b>Pass</b>	Coumaphos	ND	0.0200	0.0400	0.0 <b>Pass</b>
Cyfluthrin	ND	0.1000	0.2000	1.000 <b>Pass</b>	Cypermethrin	ND	0.0400	0.1000	1.000 <b>Pass</b>
Daminozide	ND	0.0200	0.0400	0.0 <b>Pass</b>	Diazinon	ND	0.0200	0.0400	0.2000 <b>Pass</b>
Dichlorvos	ND	0.0200	0.0400	0.0 <b>Pass</b>	Dimethoate	ND	0.0200	0.0400	0.0 <b>Pass</b>
Dimethomorph	ND	0.0099	0.0198	20.00 <b>Pass</b>	Ethoprophos	ND	0.0200	0.0400	0.0 <b>Pass</b>
Etofenprox	ND	0.0200	0.0400	0.0 <b>Pass</b>	Etoxazole	ND	0.0200	0.0400	1.500 <b>Pass</b>
Fenhexamid	ND	0.0200	0.0400	10.00 <b>Pass</b>	Fenoxycarb	ND	0.0200	0.0400	0.0 <b>Pass</b>
Fenpyroximate	ND	0.0200	0.0400	2.000 <b>Pass</b>	Fipronil	ND	0.0200	0.0400	0.0 <b>Pass</b>
Flonicamid	ND	0.0200	0.0400	2.000 <b>Pass</b>	Fludioxonil	ND	0.0200	0.0400	30.00 <b>Pass</b>
Hexythiazox	ND	0.0200	0.0400	2.000 <b>Pass</b>	Imazalil	ND	0.0200	0.0400	0.0 <b>Pass</b>
Imidacloprid	ND	0.0200	0.0400	3.000 <b>Pass</b>	KresoximMethyl	ND	0.0200	0.0400	1.000 <b>Pass</b>
Malathion	ND	0.0200	0.0400	5.000 <b>Pass</b>	Metalaxyl	ND	0.0200	0.0400	15.00 <b>Pass</b>
Methiocarb	ND	0.0200	0.0400	0.0 <b>Pass</b>	Methomyl	ND	0.0200	0.0400	0.1000 <b>Pass</b>
Mevinphos	ND	0.0200	0.0400	0.0 <b>Pass</b>	Myclobutanil	ND	0.0200	0.0400	9.000 <b>Pass</b>
Naled	ND	0.0200	0.0400	0.5000 <b>Pass</b>	Oxamyl	ND	0.0200	0.0400	0.2000 <b>Pass</b>
Paclbutrazol	ND	0.0200	0.0400	0.0 <b>Pass</b>	Permethrins	ND	0.0200	0.0400	20.00 <b>Pass</b>
Phosmet	ND	0.0200	0.0400	0.2000 <b>Pass</b>	PiperonylButoxide	ND	0.0200	0.0400	8.000 <b>Pass</b>
Prallethrin	ND	0.0200	0.0400	0.4000 <b>Pass</b>	Propiconazole	ND	0.0200	0.0400	20.00 <b>Pass</b>
Propoxur	ND	0.0200	0.0400	0.0 <b>Pass</b>	Pyrethrins	ND	0.0178	0.0356	1.000 <b>Pass</b>
Pyridaben	ND	0.0200	0.0400	3.000 <b>Pass</b>	Spinetoram	ND	0.0200	0.0400	3.000 <b>Pass</b>
Spinosad	ND	0.0200	0.0400	3.000 <b>Pass</b>	Spiromesifen	ND	0.0200	0.0400	12.00 <b>Pass</b>
Spirotetramat	ND	0.0200	0.0400	13.00 <b>Pass</b>	Spiroxamine	ND	0.0200	0.0400	0.4000 <b>Pass</b>
Tebuconazole	ND	0.0200	0.0400	2.000 <b>Pass</b>	Thiacloprid	ND	0.0200	0.0400	0.0 <b>Pass</b>
Thiamethoxam	ND	0.0200	0.0400	4.500 <b>Pass</b>	Trifloxystrobin	ND	0.0200	0.0400	30.00 <b>Pass</b>

**ADDITIONAL INFORMATION**

Method: SOP-TECH-002  
 Instrument: LC-MS/MS

Sample Prepped 09/30/2019 13:47  
 Sample Analyzed 09/30/2019 14:04

Sample Approved 10/01/2019 15:38







# CERTIFICATE OF ANALYSIS

## CHEMICAL RESIDUE GC ANALYSIS

TEST TYPE RESULT: **Pass**  
 UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Captan	ND	0.1000	0.2000	5.000 <b>Pass</b>	Chlordane	ND	0.0400	0.1000	0.0 <b>Pass</b>
MethylParathion	ND	0.0400	0.1000	0.0 <b>Pass</b>	PCNB	ND	0.0200	0.0400	0.2000 <b>Pass</b>

**ADDITIONAL INFORMATION**

Method: SOP-TECH-010      Sample Prepped 09/30/2019 13:47      Sample Approved 10/01/2019 15:49  
 Instrument: GC-MS/MS      Sample Analyzed 09/30/2019 14:06

## MICROBIAL ANALYSIS

TEST TYPE RESULT: **Pass**  
 UNIT OF MEASUREMENT: Cycle Threshold (Ct)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
A.fumigatus	ND	33.00	0.0	0.0 <b>Pass</b>	A. flavus	ND	33.00	0.0	0.0 <b>Pass</b>
A. niger	ND	33.00	0.0	0.0 <b>Pass</b>	A. terreus	ND	33.00	0.0	0.0 <b>Pass</b>
STEC	ND	33.00	0.0	0.0 <b>Pass</b>	Salmonella spp	ND	33.00	0.0	0.0 <b>Pass</b>

**ADDITIONAL INFORMATION**

Method: SOP-TECH-016, SOP-TECH-022      Sample Prepped 09/30/2019 06:28      Sample Approved 09/30/2019 13:25  
 Instrument: qPCR      Sample Analyzed 09/30/2019 06:33

## HEAVY METALS

TEST TYPE RESULT: **Pass**  
 UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Arsenic	ND	0.0200	0.0500	1.500 <b>Pass</b>	Cadmium	ND	0.0050	0.0500	0.5000 <b>Pass</b>
Lead	0.0704 ug/g	0.0100	0.0500	0.5000 <b>Pass</b>	Mercury	ND	0.0030	0.0500	3.000 <b>Pass</b>

**ADDITIONAL INFORMATION**

Method: SOP-TECH-013      Sample Prepped 10/01/2019 09:49      Sample Approved 10/01/2019 13:23  
 Instrument: ICP-MS      Sample Analyzed 10/01/2019 09:55





## CERTIFICATE OF ANALYSIS

This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented, or abstracted in any manner. Any violation of these conditions renders the report and its results void.

All LQC samples required by state regulations were performed and met the acceptance criteria.

### DATA REVIEWED AND APPROVED BY

10/03/2019

Swetha Kaul, PhD  
Chief Scientific Officer

Date

