

Certificate ID: **114715**

Received: **3/23/23**

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Redeem Therapeutics

Client Sample ID: **Sleep Tincture**

1566 Whiting Way

Lot Number: **SB23001**

Lugoff, SC 29078

Matrix: **Tincture/Infused Oil-MCT Oil**



Authorization: Chris Hudalla, Chief Science Officer	Signature: 	Date: 3/29/2023
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The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]

Analyst: *SD*

Test Date: *3/23/2023*

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations.

114715-CN

ID	Weight %	Concentration (mg/mL)			
Δ9-THC	ND	ND			
THCV	ND	ND			
CBD	6.13	58.2			
CBDV	0.0258	0.245			
CBG	0.237	2.25			
CBC	<LOQ	<LOQ			
CBN	1.06	10.1			
THCA	ND	ND			
CBDA	ND	ND			
CBGA	ND	ND			
CBDVA	ND	ND			
Δ8-THC	ND	ND			
exo-THC	ND	ND			
Total	7.45	70.8	0%	Cannabinoids (wt%)	6.13%
Max THC	ND	ND		Limit of Quantitation (LOQ) =	0.0111 wt%
Max CBD	6.13	58.2		Limit of Detection (LOD) =	0.0037 wt%

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: MAX THC = (0.877 x THCA) + THC. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND=None detected above the limits of detection (LOD), which is one third of Limit of Quantification (LOQ). For values reported as "<LOQ", the estimated value is included in the calculated Total.

HM: Heavy Metal Analysis [WI-10-13]

Analyst: ZDV

Test Date: 3/27/2023

This sample was analyzed by elemental analysis using Inductively Coupled Plasma Mass Spectrometry (ICP-MS) for the identification of heavy metal constituents. External calibration curves for heavy metals were used for quantitation, with an additional internal reference standard. Resulting data was compared with a sample blank. This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

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Symbol	Metal	Conc. ¹ (µg/kg)	RL	Use Limits ² (µg/kg)	Status
As	Arsenic	ND	50.0	1,500	PASS
Cd	Cadmium	ND	50.0	500	PASS
Hg	Mercury	ND	50.0	1,500	PASS
Pb	Lead	ND	50.0	1,000	PASS

1) ND = None detected above the indicated Reporting Limit (RL)

2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.

3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

MY: Mycotoxin Testing [WI-10-05]

Analyst: BB

Test Date: 3/28/2023

This sample was analyzed for mycotoxins using an Immunoaffinity based assay (IA). Data was compared to readings from standard reference materials. This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

114715-MY

Test ID	Date	Results	MDL	Limits	Status*
Total Aflatoxin	3/28/2023	< MDL	2 ppb	< 20 ppb	PASS
Total Ochratoxin	3/28/2023	4.9	3 ppb	< 20 ppb	PASS

PST: Pesticide Analysis [WI-10-11]

Analyst: CJR

Test Date: 3/25/2023

The client sample was analyzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

114715-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.20	10	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	100	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	100	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	3000	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.50	2000	PASS
Dichlorvos	62-73-7	ND	ppb	3.00	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	100	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	5000	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	100	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	3000	PASS
Pyrethrin	8003-34-7	ND	ppb	0.10	10	PASS
Spinosad	168316-95-8	ND	ppb	0.10	10	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	100	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	100	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	100	PASS

* Pesticide results reported against action limits established by the State of California Bureau of Cannabis Control, California Code of Regulations Title 16, Division 42. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (*) indicate analytes for which no recovery was observed for a pre-spiked matrix sample due to matrix interference.




TP: Terpenes Profile [WI-10-37]

Analyst: CS

Test Date: 3/23/2023

The sample was analyzed for terpenes (WI-10-37) utilizing solvent extraction followed by Gas Chromatography (GC) utilizing flame ionization detection (FID). Chromatographic data were processed by quantitatively comparing the analytical peak areas against calibration curves prepared from certified reference standards.

114715-TP

Compound	CAS	Conc. (wt%)	Conc. (ppm)	Qualitative Profile	
alpha-pinene	80-56-8	ND	ND		
camphene	79-92-5	ND	ND		
sabinene	3387-41-5	ND	ND		
beta-pinene	127-91-3	0.0242	242		
beta-myrcene	123-35-3	ND	ND		
alpha-phellandrene	99-83-2	ND	ND		
delta-3-carene	13466-78-9	ND	ND		
alpha-terpinene	99-86-5	ND	ND		
p-cymene	99-87-6	ND	ND		
D-limonene	5989-27-5	0.219	2,190		
eucalyptol	470-82-6	ND	ND		
alpha-ocimene	502-99-8	ND	ND		
beta-ocimene	13877-91-3	ND	ND		
gamma-terpinene	99-85-4	0.0297	298		
L-fenchone	7787-20-4	ND	ND		
terpinolene	586-62-9	ND	ND		
linalool	78-70-6	ND	ND		
isopulegol	89-79-2	ND	ND		
menthol	89-78-1	ND	ND		
geraniol	106-24-1	ND	ND		
beta-caryophyllene	87-44-5	ND	ND		
alpha-humulene	6753-98-6	ND	ND		
cis-nerolidol	3790-78-1	ND	ND		
trans-nerolidol	40716-66-3	ND	ND		
caryophyllene oxide	1139-30-6	ND	ND		
guaial	489-86-1	ND	ND		
alpha-bisabolol	23089-26-1	ND	ND		

Total Terpene: 0.3 wt%

* Certified reference standard not available for this compound. Concentration is estimated using the response factor from alpha-pinene. ND = None Detected. RL = Reporting Limit of 5 ppm.

END OF REPORT