



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-003819/D003.R000
Report Date: 04/11/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/05/22 11:25

Customer: NW Natural Goods
Product identity: HEMP - HB 0068
Client/Metric ID: .
Laboratory ID: 22-003819-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g [†]	0.231		mg/4g		CBD-Total per 4g 25.7 mg/4g
CBD per 4g	25.7		mg/4g		
CBG per 4g [†]	0.448		mg/4g		THC-Total per 4g <LOQ
(Reported in milligrams per serving)					

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

Analyte	Result (mg/kg)	Limits (mg/kg)	Status
Multi-Residue Pesticide Profile [†]	< LOQ for all analytes		

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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Product identity: HEMP - HB 0068

Client/Metric ID: .

Sample Date:

Laboratory ID: 22-003819-0001

Evidence of Cooling: No

Temp: 18 °C

Relinquished by: Ramos

Serving Size #1: 4 g

Sample Results

Potency per 4g					
Method J AOAC 2015 V98-6 (mod)Units mg/se Batch: 2202988 Analyze: 4/7/22 12:52:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 4g [†]	0.231		mg/4g	0.126	
CBC-A per 4g [†]	< LOQ		mg/4g	0.126	
CBC-Total per 4g [†]	< LOQ		mg/4g	0.237	
CBD per 4g	25.7		mg/4g	0.126	
CBD-A per 4g	< LOQ		mg/4g	0.126	
CBD-Total per 4g	25.7		mg/4g	0.237	
CBDV per 4g [†]	< LOQ		mg/4g	0.126	
CBDV-A per 4g [†]	< LOQ		mg/4g	0.126	
CBDV-Total per 4g [†]	< LOQ		mg/4g	0.236	
CBE per 4g [†]	< LOQ		mg/4g	0.126	
CBG per 4g [†]	0.448		mg/4g	0.126	
CBG-A per 4g [†]	< LOQ		mg/4g	0.126	
CBG-Total per 4g [†]	0.448		mg/4g	0.236	
CBL per 4g [†]	< LOQ		mg/4g	0.126	
CBL-A per 4g [†]	< LOQ		mg/4g	0.126	
CBL-Total per 4g [†]	< LOQ		mg/4g	0.237	
CBN per 4g	< LOQ		mg/4g	0.126	
CBT per 4g [†]	< LOQ		mg/4g	0.126	
Δ8-THCV per 4g [†]	< LOQ		mg/4g	0.126	
Δ8-THC per 4g [†]	< LOQ		mg/4g	0.126	
Δ9-THC per 4g	< LOQ		mg/4g	0.126	
exo-THC per 4g [†]	< LOQ		mg/4g	0.126	
THC-A per 4g	< LOQ		mg/4g	0.126	
THC-Total per 4g	< LOQ		mg/4g	0.237	
THCV per 4g [†]	< LOQ		mg/4g	0.126	
THCV-A per 4g [†]	< LOQ		mg/4g	0.126	
THCV-Total per 4g [†]	< LOQ		mg/4g	0.237	
Total Cannabinoids per 4g	26.4		mg/4g		



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2202935	04/08/22	AOAC 991.14 (Petrifilm)		X
Total Coliforms	< LOQ		cfu/g	10	2202935	04/08/22	AOAC 991.14 (Petrifilm)		X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2202936	04/09/22	AOAC 2014.05 (RAPID)		X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2202936	04/09/22	AOAC 2014.05 (RAPID)		X

Solvents	Method	Residual Solvents by GC/MS				Units	μg/g	Batch	2202997	Analyze	04/07/22	02:02 PM
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes	
1,4-Dioxane	< LOQ	380	100	pass		2-Butanol	< LOQ	5000	200	pass		
2-Ethoxyethanol	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane)	< LOQ		200			
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass		
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< LOQ		200			
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0			
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass		
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass		
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass		
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass		
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	20.0	pass		
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass		
Isopropylbenzene (Cumene)	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200			
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	60.0	pass		
Methylpropane (Isobutane)	< LOQ		200			n-Butane	< LOQ		200			
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0			
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200			
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass		
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass		
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass		

Pesticides	Method	AOAC 2007.01 & EN 15662 (mod)	Units	mg/kg	Batch	2202980	Analyze	04/07/22	11:21 AM
Analyte	Result	Limits	Status	Notes					
Multi-Residue Pesticide Profile†	< LOQ for all analytes								

Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Status	Notes
Arsenic	< LOQ	0.200	mg/kg	0.0191	2202999	04/07/22	AOAC 2013.06 (mod.)	pass	X
Cadmium	< LOQ	0.200	mg/kg	0.0191	2202999	04/07/22	AOAC 2013.06 (mod.)	pass	X
Lead	< LOQ	0.500	mg/kg	0.0191	2202999	04/07/22	AOAC 2013.06 (mod.)	pass	X
Mercury	< LOQ	0.100	mg/kg	0.00954	2202999	04/07/22	AOAC 2013.06 (mod.)	pass	X



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Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Status	Notes
Moisture (Loss on Drying)	18.5		g/100g	0.10	2203006	04/06/22	AOAC 925.10 (mod.)	X	
Water Activity	0.701		Aw	0.030	2202968	04/06/22	AOAC 978.18	X	



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These test results are representative of the individual sample selected and submitted by the client.

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

† = Analyte not NELAP accredited.

Units of Measure

cfu/g = Colony forming units per gram

g = g

g/100g = Grams per 100 Grams

µg/g = Microgram per gram

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/4g = Milligram per 4g

% = Percentage of sample

Aw = Water Activity

% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager



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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)
Abamectin	0.100	Cethodim	0.050	Endrin	0.100
Acephate	0.100	Cethodim Sulfone	0.050	EPN	0.050
Acequinocyl	0.100	Cethodim Sulfoxide	0.050	EPIC	0.100
Acetamiprid	0.020	Cb fenfentazine	0.020	Esfenvalerate/ Fenvalerate	0.200
Acetochlor	0.100	Cbmazone	0.020	Etoconazole	0.100
Acrinathrin	0.100	Cbthianidin	0.200	Ethalfuralin	0.100
Alachlor	0.100	Cumaphos	0.050	Ethiofencarb	0.050
Aldicarb	0.100	Crdoxyphos	0.020	Ethion	0.200
Aldicarb sulfoxide	0.100	Cyanazine	0.020	Ethirimol	0.100
Aldoxycarb (Aldicarb-sulfone)	0.100	Cyanofenphos	0.020	Ethofumesate	0.050
Aldrin	0.100	Cyfluthrin	0.050	Ethoprophos	0.020
Ametoctradin	0.020	Cyazfamid	0.020	Etofenprox	0.020
Ametryn	0.500	Cytoate	0.100	Etozazole	0.020
Aspon	0.100	Cyfluthrin	0.200	Etridiazole	0.100
Asulam	0.100	Cyhalothrin, lambda	0.200	Etrinfos	0.020
Atrazine	0.100	Cymoxanil	0.050	Famoxadone	0.200
Atrazine-desethyl	0.100	Cypermethrin	0.200	Famphur	0.100
Azinphos-ethyl	0.020	Cyprodinil	0.100	Fenamidone	0.020
Azinphos-methyl	0.020	Dadthal	0.100	Fenamiphos	0.020
Azoxystrobin	0.020	Daminozide	0.100	Fenamiphos sulfone	0.020
Beralaxyl	0.020	DCPMU	0.050	Fenamiphos sulfoxide	0.020
Berthocarb	0.020	DDD, o,p'-	0.100	Fenazaquin	0.100
Berthuralin	0.100	DDD, p,p'-	0.100	Fenbuconazole	0.100
Berthoxacor	0.050	DDE, o,p'-	0.100	Fenchlorphos	0.100
Bersulide	0.050	DDE, p,p'-	0.100	Fenchlorphos-oxon	0.100
BHC alpha isomer	0.100	DDT, o,p'-	0.100	Fenhexamid	0.100
BHC beta isomer	0.100	DDT, p,p'-	0.100	Fenitrothion	0.100
BHC delta isomer	0.500	DEF (Tribufos)	0.100	Fenobucarb	0.050
Bifenazate	0.020	Detamethrin	0.100	Fenoxycarb	0.020
Bifenthrin	0.020	Desmedipham	0.100	Fenpropathrin	0.050
Boscalid	0.020	Diallate	0.100	Fenpyroximate	0.020
Bromophos-ethyl	0.100	Diazinon	0.020	Fenson	0.100
Bromophos-methyl	0.200	Diazoxon	0.100	Fensulfthion	0.020
Bromopropylate	0.100	Dichlobenil	0.100	Fensulfthion oxon	0.020
Bromuconazole	0.100	Dichlofluanid	0.100	Fensulfthion sulfone	0.100
Bupimate	0.020	Dichlorvos	0.100	Fensulfthion-oxon-sulfone	0.020
Buprofezin	0.050	Diclobutrazol	0.050	Fenthion	0.050
Butachlor	0.500	Dicofol	0.100	Fenthion oxon	0.020
Butralin	0.200	Dicrotophos	0.050	Fenthion oxon sulfone	0.100
Butylate	0.100	Dieldrin	0.100	Fenthion sulfone	0.050
Cadusafos	0.020	Diethofencarb	0.020	Fenuron	0.020
Captan	1.000	Diethyltoluamide (DEET)	0.050	Fipronil	0.100
Carbaryl	0.050	Difenoconazole	0.100	Fonicamid	0.100
Carbendazim	0.100	Dimethenamid	0.050	Fuchloralin	0.100
Carbendofuran	0.020	Dimethoate	0.050	Flucythrinate	0.100
Carbophenothion	0.200	Dimethomorph	0.050	Fludioxonil	0.200
Carboxin	0.020	Diniconazole	0.200	Flufenacet	0.020
Carfentrazone-ethyl	0.100	Dinotefuran	0.200	Flumioxazin	0.100
Chlorantraniliprole	0.020	Dioxathion	0.100	Flumeturon	0.020
Chlordane, cis-	0.200	Diphenamid	0.020	Flupicolide	0.050
Chlordane, trans-	0.200	Diphenylamine	0.100	Flupyrrom	0.020
Chlorfenapyr	0.500	Disulfoton	0.100	Fluxastrobin	0.050
Chlorfenson	0.200	Disulfoton sulfone	0.100	Flupyradifurone	0.020
Chlorfenvinphos	0.050	Disulfoton sulfoxide	0.100	Fluridone	0.100
Chlorobenzilate	0.100	Diuron	0.050	Flusilazole	0.020
Chloroneb	0.200	Edifenphos	0.050	Flutolanil	0.020
Chlorpyrifos	0.050	Endosulfan alpha	0.200	Flutriafol	0.020
Chlorpyrifos-methyl	0.200	Endosulfan beta	0.200	Fluvalinate, tau-	0.100
CIPC	1.000	Endosulfan sulfate	0.100	Fluxapyroxad	0.020



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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ(mg/ kg)	Compound	LOQ(mg/ kg)	Compound	LOQ(mg/ kg)
Fomesafen	0.100	Mexacarbate	0.020	Propamocarb	0.050
Fonofos	0.100	MGK 264	0.020	Propanil	0.050
Forchlorfenuron	0.050	Mirex	0.100	Propargite	0.050
Formetanate	0.050	Molinate	0.050	Propazine	0.020
Furathiocarb	0.020	Monocrotophos	0.100	Propetamphos	0.050
Heptachlor	0.100	Monolinuron	0.020	Propham	0.050
Heptachlor epoxide	0.100	Myclobutanil	0.050	Propiconazole	0.050
Heptenophos	0.100	Naled	0.100	Propoxur	0.050
Hexachlorobenzene	0.100	Napropamide	0.050	Propoxycarbazona Na	0.050
Hexaconazole	0.100	Neburon	0.020	Propyzamide	0.050
Hexazinone	0.100	Nitrapyrin	0.100	Prothiofos	0.100
Hexythiazox	0.020	Norflurazon	0.050	Pyraclostrobin	0.020
Imazalil	0.100	Omethoate	0.100	Pyrazophos	0.050
Imidacloprid	0.100	O-Phenylphenol	0.100	Pyrethrins	0.050
Indaziflam	0.020	Oxadixyl	0.100	Pyridaben	0.020
Indoxacarb	0.020	Oxamyl	0.100	Pyridafol	0.100
Iprobenfos	0.100	Oxamyl-oxime	0.100	Pyridate	0.020
Iprodione	0.100	Oxychlorane	0.100	Pyrimethanil	0.050
Isobenzan	0.100	Oxydemeton-Methyl	0.100	Pyriproxifen	0.020
Isocarbophos	0.500	Oxythioquinox	0.200	Pyroxasulfone	0.020
Isodrin	0.100	Padlobutrazol	0.050	Pyroxulam	0.020
Isofenphos	0.050	Paraaxon-ethyl	0.020	Quinalphos	0.050
Isofenphos-methyl	0.020	Paraaxon methyl	0.100	Quinoxifen	0.050
Isofenphos oxon	0.050	Parathion ethyl	0.100	Quintozene (PQN)	0.200
Isoprocarb	0.020	Parathion methyl	0.200	Resmethrin	0.050
Isopropalin	0.200	Perconazole	0.050	Rotenone	0.050
Isoprothiolane	0.050	Perdimethalin	0.050	S421	0.100
Isoproturon	0.050	Perflufen	0.020	Simaizine	0.100
Isoxaben	0.050	Pertachloroaniline	0.100	Simetryn	0.200
Isoxaflutole	0.050	Pertachloroanisole	0.100	Spinetoram	0.020
Kresoxim-methyl	0.050	Pentachlorobenzene (PCB)	0.100	Spinosad	0.050
Lactofen	0.500	Pentachlorothiobenzene (PCTA)	0.100	Spirodiclofen	0.100
Lenadi	0.100	Perthiopyrad	0.020	Spiromesifen	0.050
Lindane (gammaBHC)	0.100	Permethrin	0.050	Spirotetramat	0.050
Linuron	0.020	Pethane	0.100	Spiroxamine	0.020
Malaoxon	0.050	Phenmedipham	0.050	Sulfotep	0.050
Malathion	0.050	Phenthoate	0.050	Sulfoxafloz	0.050
Mandipropamid	0.020	Phorate	0.050	Sulprofos	0.020
Mecarbam	0.020	Phorate Sulfone	0.050	Tebuconazole	0.100
Mepanipyrim	0.050	Phorate Sulfoxide	0.050	Tebufenozide	0.020
Merphos	0.500	Phosalone	0.050	Tebuthiuron	0.020
Metalaxyl	0.050	Phosmet	0.100	Tecnazene	0.100
Metaldehyde	0.050	Phosphamidon	0.050	Tefluthrin	0.100
Metconazole	0.100	Phoxim	0.050	Terbufos	0.020
Methacifos	0.100	Pinoxaden	0.020	Terbufos sulfone	0.050
Methamidophos	0.050	Piperonyl butoxide	0.050	Terbufos sulfoxide	0.050
Methidathion	0.050	Pirimicarb	0.020	Terbutylazine	0.020
Methiocarb	0.050	Pirimiphos-methyl	0.050	Terbutryn	0.020
Methiocarb sulfone	0.100	Pirimiphos-ethyl	0.020	Tetrachlorvinphos	0.050
Methiocarb sulfoxide	0.100	Prallethrin	0.100	Tetraconazole	0.050
Methomyl	0.100	Prochloraz	0.020	Tetradifon	0.200
Methoxychlor	0.100	Procyimdone	0.100	Tetramethrin	0.050
Methoxyfenozide	0.020	Prfenofos	0.100	Tetrasul	0.100
Metobromuron	0.050	Prfluralin	0.100	Thiabendazole	0.100
Metolachlor	0.100	Promecarb	0.050	Thiabendazole, 5-hydroxy	0.100
Metolcarb	0.050	Prometon	0.100	Thiadoprid	0.050
Metrafenone	0.050	Prometryn	0.020	Thiamethoxam	0.100
Metribuzin	0.100	Propachlor	0.020	Thiobencarb	0.050
Mevinphos	0.100			Thiodicarb	0.050
				Thiophanate-methyl	0.050



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Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)
Tolclofos-methyl	0.100	Triazophos	0.020	Trifloxystrobin	0.020
Triforin	0.100	Tolyfluarid	0.050	Triticonazole	0.050
Tralkoxydim	0.100	Tridiphane	0.500	Vindozolin	0.100
Triadimefon	0.050	Triflumizole	0.020	Zoxamide	0.020
Triallate	0.100	Trifluralin	0.100		

LOQ=Limit of Quantitation, mg/kg

Factors affecting the LOQ include instrumentation sensitivity for a particular analyte, sample size, moisture content (percent solids) of the sample, effectiveness of the cleanup on the sample extract, and especially the type of sample matrix.



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