

Marco Krause  
 Dr. MAK's Apothecary  
 3435 Greystone Drive  
 Austin, TX 78731



Project # 133839  
 Control # 121496

Project 23.001

Sample Soothe kratom/kava shot

Matrix liquid

Date/Time Taken

Date/Time Rec'd Nov 17, 2023

### CERTIFICATE OF ANALYSIS

<u>Analyte</u>	<u>CAS</u>	<u>Result</u>	<u>Units</u>	<u>LOQ</u>	<u>Method</u>	<u>Criteria</u>	<u>Status</u>
<b>Mitragynines</b>							
7-OH-mitragynine	174418-82-7	0.14	%	0.1	LC-MS/MS	<2	Pass
Mitragynine	4098-40-2	43.6	mg/bottle	0.2	LC-MS/MS	32 - 48	Pass
Total mitragyna alkaloids	4098-40-2	52.1	mg/bottle	0.2	LC-MS/MS		
<b>Kavalactones</b>							
Total kavalactones	500-64-1	10.5	mg/bottle	0.2	LC-MS/MS	8 - 10	Pass
<b>Microbiology</b>							
E. Coli		Negative	CFU	2	FDA/BAM	<2	Pass
Listeria Mono		Negative	CFU	2	FDA/BAM	<2	Pass
Salmonella spp		Negative	CFU	2	FDA/BAM	<2	Pass
<b>Elemental Analysis</b>							
Arsenic	7440-38-2	0.0051	mg/Kg	0.005	2015.01	0.010	Pass
Cadmium	7440-43-9	Below LOQ	mg/Kg	0.001	2015.01	0.005	Pass
Lead	7439-92-1	0.0032	mg/Kg	0.001	2015.01	0.015	Pass
Mercury	7439-97-6	Below LOQ	mg/Kg	0.001	2015.01	0.002	Pass
<b>Multiresidue Pesticides</b>							
Acephate	30560-19-1	ND	mg/Kg	0.01	USP561	0.10	Pass
Aldrin	309-00-2	ND	mg/Kg	0.02	USP561	0.050	Pass
Dieldrin	60-57-1	ND	mg/Kg	0.01	USP561		
Alachlor	15972-60-8	ND	mg/Kg	0.01	USP561	0.050	Pass
Azinphos-ethyl	2642-71-9	ND	mg/Kg	0.01	USP561	0.10	Pass
Azinphos-methyl	86-50-0	ND	mg/Kg	0.01	USP561	1.0	Pass
Bromophos-ethyl	4824-78-6	ND	mg/Kg	0.01	USP561	0.050	Pass
Bromophos-methyl	2104-96-3	ND	mg/Kg	0.01	USP561	0.050	Pass
Bromopropylate	18181-80-1	ND	mg/Kg	0.01	USP561	3.0	Pass
Chlordanes		ND	mg/Kg	0.04	USP561	0.050	Pass
cis-Chlordane	5103-71-9	ND	mg/Kg	0.01	USP561		
trans-Chlordane	5103-74-2	ND	mg/Kg	0.01	USP561		
oxy-Chlordane	27304-13-8	ND	mg/Kg	0.02	USP561		
Chlorfenvinphos	470-90-6	ND	mg/Kg	0.01	USP561	0.50	Pass
Chlorpyrifos-ethyl	2921-88-2	ND	mg/Kg	0.01	USP561	0.20	Pass

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 LOQ - limit of quantification. ND - not detected above the LOQ  
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 ISO/NELAP TX02610

Respectfully submitted,

Mark C. Krause

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Chlorpyrifos-methyl	5598-13-0	ND	mg/Kg	0.01	USP561	0.10	Pass
Chlorthal-dimethyl	1861-32-1	ND	mg/Kg	0.01	USP561	0.010	Pass
Cyfluthrin	68359-37-5	ND	mg/Kg	0.02	USP561	0.10	Pass
lambda-Cyhalothrin	68085-85-8	ND	mg/Kg	0.01	USP561	1.0	Pass
Cypermethrins	52315-07-8	ND	mg/Kg	0.02	USP561	1.0	Pass
DDT		ND	mg/Kg	0.06	USP561	1.0	Pass
o,p-DDT	72-54-8	ND	mg/Kg	0.01	USP561		
p,p-DDT	67-56-1	ND	mg/Kg	0.01	USP561		
o,p-DDE	3424-82-6	ND	mg/Kg	0.01	USP561		
p,p-DDE	72-55-9	ND	mg/Kg	0.01	USP561		
o,p-DDD	789-02-6	ND	mg/Kg	0.01	USP561		
p,p-DDD	50-29-3	ND	mg/Kg	0.01	USP561		
Deltamethrin	52918-63-5	ND	mg/Kg	0.01	USP561	0.50	Pass
Diazinon	333-41-5	ND	mg/Kg	0.01	USP561	0.50	Pass
Dichlofluanid	1085-98-9	ND	mg/Kg	0.01	USP561	0.10	Pass
Dichlorvos	62-73-7	ND	mg/Kg	0.02	USP561	1.0	Pass
Dicofol	115-32-2	ND	mg/Kg	0.01	USP561	0.50	Pass
Dimethoate	60-51-5	ND	mg/Kg	0.01	USP561	0.10	Pass
Omethaote	1113-02-6	ND	mg/Kg	0.01	USP561		
Dithiocarbamates as CS2		ND	mg/Kg	0.1	USP561	2.0	Pass
Dithiocarbamate, manganese	12427-38-2	ND	mg/Kg	0.05	USP561		
Dithiocarbamate, zinc	14324-55-1	ND	mg/Kg	0.05	USP561		
Endosulfans		ND	mg/Kg	0.03	USP561	3.0	Pass
Endosulfan I	959-98-8	ND	mg/Kg	0.01	USP561		
Endosulfan II	33213-65-9	ND	mg/Kg	0.01	USP561		
Endosulfan sulfate	1031-07-8	ND	mg/Kg	0.01	USP561		
Endrin	72-20-8	ND	mg/Kg	0.01	USP561	0.050	Pass
Ethion	563-12-2	ND	mg/Kg	0.01	USP561	2.0	Pass
Etrimphos	38260-54-7	ND	mg/Kg	0.01	USP561	0.050	Pass
Fenchlorphos	299-84-3	ND	mg/Kg	0.02	USP561	0.10	Pass
Fenchlorphos oxon	38260-54-7	ND	mg/Kg	0.01	USP561		

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Fenitrothion	122-14-5	ND	mg/Kg	0.01	USP561	0.50	Pass
Fenpropathrin	39515-41-8	ND	mg/Kg	0.01	USP561	0.030	Pass
Fensulfothion	115-90-2	ND	mg/Kg	0.04	USP561	0.050	Pass
Fensulfothion-oxon	6552-21-2	ND	mg/Kg	0.01	USP561		
Fensulfothion-oxonsulfone	6132-17-8	ND	mg/Kg	0.01	USP561		
Fensulfothion-sulfone	14255-72-2	ND	mg/Kg	0.01	USP561		
Fenthion	55-38-9	ND	mg/Kg	0.05	USP561	0.050	Pass
Fenthion oxon	6552-12-1	ND	mg/Kg	0.01	USP561		
Fenthion oxonsulfone	14086-35-2	ND	mg/Kg	0.01	USP561		
Fenthion oxonsulfoxide	6552-13-2	ND	mg/Kg	0.01	USP561		
Fenthion sulfone	3761-42-0	ND	mg/Kg	0.01	USP561		
Fenthion sulfoxide	3761-41-9	ND	mg/Kg	0.01	USP561		
Fenvalerate	51630-58-1	ND	mg/Kg	0.04	USP561	1.5	Pass
Esfenvalerate	66230-04-4	ND	mg/Kg	0.02	USP561		
Flucythrinate	71611-31-9	ND	mg/Kg	0.01	USP561	0.050	Pass
Fluvalinate	102851-06-9	ND	mg/Kg	0.01	USP561	0.050	Pass
Fonophos	944-22-9	ND	mg/Kg	0.01	USP561	0.050	Pass
Heptachlor	76-44-8	ND	mg/Kg	0.02	USP561	0.050	Pass
Heptachlor epoxide (cis/trans)	1024-57-3	ND	mg/Kg	0.01	USP561		
Hexachlorobenzene	118-74-1	ND	mg/Kg	0.01	USP561	0.10	Pass
Hexachlorohexanes		ND	mg/Kg	0.03	USP561	0.30	Pass
alpha-Hexachlorocyclohexane	319-84-6	ND	mg/Kg	0.01	USP561		
beta-Hexachlorocyclohexane	319-85-7	ND	mg/Kg	0.01	USP561		
delta-Hexachlorocyclohexane	319-86-8	ND	mg/Kg	0.01	USP561		
Lindane	58-89-9	ND	mg/Kg	0.01	USP561	0.60	Pass
Malathion	121-75-5	ND	mg/Kg	0.02	USP561	1.0	Pass
Malathion oxon	1634-78-2	ND	mg/Kg	0.01	USP561		
Mecarbam	2595-54-2	ND	mg/Kg	0.01	USP561	0.050	Pass
Methacriphos	62610-77-9	ND	mg/Kg	0.01	USP561	0.050	Pass
Methamidophos	10265-92-6	ND	mg/Kg	0.01	USP561	0.050	Pass
Methadathion	950-37-8	ND	mg/Kg	0.01	USP561	0.20	Pass

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Methoxychlor	72-43-5	ND	mg/Kg	0.01	USP561	0.050	Pass
Mirex	2385-85-5	ND	mg/Kg	0.01	USP561	0.010	Pass
Monocrotophos	6923-22-4	ND	mg/Kg	0.01	USP561	0.10	Pass
Parathion-ethyl	56-38-2	ND	mg/Kg	0.02	USP561	0.50	Pass
Paraoxon ethyl	311-45-5	ND	mg/Kg	0.01	USP561		
Parathion-methyl	298-00-0	ND	mg/Kg	0.02	USP561	0.20	Pass
Paraoxon methyl	950-35-6	ND	mg/Kg	0.01	USP561		
Pendimethalin	40487-42-1	ND	mg/Kg	0.01	USP561	0.10	Pass
Pentachloroanisole	1825-21-4	ND	mg/Kg	0.01	USP561	0.010	Pass
Permethrins	52645-53-1	ND	mg/Kg	0.02	USP561	1.0	Pass
cis-Permethrin	61949-76-6	ND	mg/Kg	0.01	USP561		
trans-Permethin	61949-77-7	ND	mg/Kg	0.01	USP561		
Phosalone	2310-17-0	ND	mg/Kg	0.01	USP561	0.10	Pass
Piperonyl butoxide	51-03-6	ND	mg/Kg	0.01	USP561	3.0	Pass
Pirimiphos ethyl	23505-41-1	ND	mg/Kg	0.01	USP561	0.050	Pass
Pirimiphos methyl	29232-93-7	ND	mg/Kg	0.03	USP561	4.0	Pass
N-desethylpirimiphos methyl	67018-59-1	ND	mg/Kg	0.02	USP561		
Procymidone	32809-16-8	ND	mg/Kg	0.01	USP561	0.10	Pass
Profenofos	41198-08-7	ND	mg/Kg	0.01	USP561	0.10	Pass
Prothiophos	34643-46-4	ND	mg/Kg	0.01	USP561	0.050	Pass
Pyrethrum		ND	mg/Kg	0.3	USP561	3.0	Pass
Cinerin I	25402-06-6	ND	mg/Kg	0.05	USP561		
Cinerin II	121-20-0	ND	mg/Kg	0.05	USP561		
Jasmoline I	4466-14-2	ND	mg/Kg	0.05	USP561		
Jasmoline II	4466-14-2	ND	mg/Kg	0.05	USP561		
Pyrethrin I	121-21-1	ND	mg/Kg	0.05	USP561		
Pyrethrin II	121-29-9	ND	mg/Kg	0.05	USP561		
Quinalphos	13593-03-8	ND	mg/Kg	0.01	USP561	0.050	Pass
Quintozene	82-68-8	ND	mg/Kg	0.09	USP561	1.0	Pass
Pentachloroaniline	527-20-8	ND	mg/Kg	0.02	USP561		
Methyl pentachlorophenyl sulfide	1825-19-0	ND	mg/Kg	0.05	USP561		

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Tecnazene	117-18-0	ND	mg/Kg	0.01	USP561	0.050	Pass
S-421	127-90-2	ND	mg/Kg	0.01	USP561	0.020	Pass
Tetradifon	116-29-0	ND	mg/Kg	0.01	USP561	0.30	Pass
Vinclozolin	50471-44-8	ND	mg/Kg	0.01	USP561	0.40	Pass

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