

# CERTIFICATE OF ANALYSIS

**SAMPLE NAME:** 25% B  
**SAMPLE CODE:** KTM-230213-008

**BATCH RESULT:** NA



1230 Woodmere Ave  
 Traverse City, MI 49686  
 231.252.3669



**MATRIX NAME:** Kratom - Extract - Free

**BATCH CODE:** R304101

Base

**BATCH SIZE:** 1U

**SAMPLE TYPE:** Compliance

**SAMPLE SIZE:** 1U

**RECEIVED DATE:** Tuesday, Feb 14

**PUBLISHED DATE:** N/A



**LAB-TM-047**  
 Kratom Alkaloids



**LAB-TM-005**  
 Heavy Metals Analysis  
 by ICP-MS



**LAB-TM-004**  
 Residual Solvent  
 Analysis by GC-MS



**LAB-TM-015**  
 Total Yeast and Mold

*Leslie Varela*

**RESULTS REVIEWED BY: Leslie Varela**

Laboratory Director  
 Cambium Analytica  
 N/A

*Douglas Smith*

**RESULTS REVIEWED BY: Douglas Smith**

VP - Scientific Operations  
 Cambium Analytica  
 N/A

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## KRATOM ALKALOIDS

ALK-KTM-230213-008-01 - MONDAY, FEB 13

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
7-Hydroxymitragynine	0.037 %	N/A	0.01 ug/kg	0.03 ug/kg	N/A
Mitragynine	32.595 %	N/A	0.01 ug/kg	0.03 ug/kg	N/A
Mitraphylline	0 %	N/A	0.01 ug/kg	0.03 ug/kg	N/A
Paynantheine	6.649 %	N/A	0.01 ug/kg	0.03 ug/kg	N/A
Speciociliatine	6.5 %	N/A	0.01 ug/kg	0.03 ug/kg	N/A
Speciogynine	4.52 %	N/A	0.01 ug/kg	0.03 ug/kg	N/A
Total Alkaloids	50.3 %	N/A	N/A	N/A	N/A

## HEAVY METALS ANALYSIS BY ICP-MS

MET-KTM-230213-008-01 - MONDAY, FEB 13

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Arsenic	0.0328 ug/g	N/A	0.1985 ug/kg	0.6616 ug/kg	N/A
Cadmium	0.0014 ug/g	N/A	0.0817 ug/kg	0.2724 ug/kg	N/A
Chromium	0.9292 ug/g	N/A	0.6272 ug/kg	2.0907 ug/kg	N/A
Copper	5.1144 ug/g	N/A	0.1546 ug/kg	0.5152 ug/kg	N/A
Lead	0.033 ug/g	N/A	0.0845 ug/kg	0.2817 ug/kg	N/A
Mercury	0.0012 ug/g	N/A	0.0171 ug/kg	0.0571 ug/kg	N/A
Nickel	0.6904 ug/g	N/A	0.3213 ug/kg	1.0709 ug/kg	N/A

## RESIDUAL SOLVENT ANALYSIS BY GC-MS

SOL-KTM-230213-008-02 - THURSDAY, FEB 16

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
1,2-Dichloroethane	ND	N/A	0.4 ug/g	1.34 ug/g	N/A
2-Methylbutane	ND	N/A	1.54 ug/g	5.14 ug/g	N/A
2-Methylpentane	ND	N/A	N/A	N/A	N/A
2,2-Dimethylbutane	ND	N/A	0.98 ug/g	3.27 ug/g	N/A
2,3-Dimethylbutane	ND	N/A	2.19 ug/g	7.32 ug/g	N/A
3-Methylpentane	ND	N/A	0.73 ug/g	2.44 ug/g	N/A
Acetone	0 ug/g	N/A	1.57 ug/g	5.23 ug/g	N/A
Acetonitrile	0 ug/g	N/A	1.85 ug/g	6.17 ug/g	N/A
Benzene	ND	N/A	0.18 ug/g	0.59 ug/g	N/A
Butane	ND	N/A	1.68 ug/g	5.59 ug/g	N/A
Butanes (Sum of Butane and Isobutane)	0 ug/g	N/A	N/A	N/A	N/A
Butyl Acetate	ND	N/A	N/A	N/A	N/A
Chloroform	0 ug/g	N/A	0.78 ug/g	2.59 ug/g	N/A
Ethanol	ND	N/A	6.02 ug/g	20.1 ug/g	N/A
Ethyl Acetate	0 ug/g	N/A	1.95 ug/g	6.49 ug/g	N/A
Ethyl Ether	ND	N/A	1.37 ug/g	4.55 ug/g	N/A
Ethylene Oxide	ND	N/A	0.15 ug/g	0.49 ug/g	N/A
Heptane	ND	N/A	1.31 ug/g	4.37 ug/g	N/A
Hexane	ND	N/A	1.42 ug/g	4.74 ug/g	N/A
Hexanes (Sum of Hexane, 2,2-Dimethylbutane, 2,3-Dimethylbutane, 2-Methylpentane, and 3-Methylpentane)	0 ug/g	N/A	N/A	N/A	N/A
Isobutane	ND	N/A	1.6 ug/g	5.34 ug/g	N/A
Isopropyl Alcohol	ND	N/A	4.9 ug/g	16.3 ug/g	N/A
Methanol	0 ug/g	N/A	7.89 ug/g	26.4 ug/g	N/A
Methylene Chloride	627.573 ug/g	N/A	1.36 ug/g	4.53 ug/g	N/A
Neopentane	ND	N/A	1.49 ug/g	4.97 ug/g	N/A
Pentane	ND	N/A	1.46 ug/g	4.87 ug/g	N/A
Pentanes (Sum of Pentane, 2-Methylbutane, and Neopentane)	0 ug/g	N/A	N/A	N/A	N/A
Propane	ND	N/A	1.95 ug/g	6.51 ug/g	N/A
Propyl Acetate	ND	N/A	N/A	N/A	N/A
Toluene	ND	N/A	1.88 ug/g	6.26 ug/g	N/A
Total Xylenes	ND	N/A	2.02 ug/g	6.72 ug/g	N/A
Trichloroethylene	ND	N/A	0.29 ug/g	0.96 ug/g	N/A

## TOTAL YEAST AND MOLD

TYMC-KTM-230213-008-01 - MONDAY, FEB 13

ANALYTE	VALUE	ACTION LIMIT	LOD	LOQ	STATUS
Total Yeast and Mold	10 CFU/g	N/A	N/A	N/A	N/A

