

HIGH NORTH ID:
00453218
Date: 2024-03-19
Certificate: 1710891561



High North Inc.
241 Hanlan Rd, Unit 7
Woodbridge, ON, L4L 3R7
1-416-864-6119
LIC-P4PNJMAC20-2022

Client: HASHTEK

Name: Aleks

Product: HASH

Lot: HK240311FD

Matrix: Oil

Sub-matrix: Hash Rosin

Sampled: 2024-03-11

Received: 2024-03-13

Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC]			60.4457	604.4575
Total CBD [(CBDA x 0.877) + CBD]			0.2057	2.0578
THCA-A	0.1	0.2	65.1640	651.6405
D9-THC	0.1	0.2	3.2969	32.9688
CBGA	0.1	0.2	1.2706	12.7063
CBCA	0.1	0.2	0.6781	6.7807
THCVA	0.1	0.2	0.4156	4.1559
CBG	0.1	0.2	0.2346	2.3464
CBDA	0.1	0.2	0.2346	2.3464
CBC	0.1	0.2	ND	ND
D8-THC	0.1	0.2	ND	ND
CBCVA	0.1	0.2	ND	ND
CBN	0.1	0.2	ND	ND
CBCV	0.1	0.2	ND	ND
THCV	0.1	0.2	ND	ND
CBD	0.1	0.2	ND	ND
CBDV	0.1	0.2	ND	ND
CBDVA	0.1	0.2	ND	ND
Total of all quantified cannabinoids:			71.2944	712.9450

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Trans-Caryophyllene	0.0008	0.025	2.5381
Farnesene*	0.0055	0.050	1.7595
(R)-(+)-Limonene	0.0007	0.025	1.1429
Alpha-Humulene	0.0005	0.025	0.9359
Linalool	0.0007	0.025	0.4930
Alpha-Bisabolol	0.0008	0.025	0.3584
Beta-Pinene	0.0008	0.025	0.1380
Alpha-Terpineol	0.0008	0.025	0.1207
Alpha-Pinene	0.0007	0.025	0.1045

Abbreviations: wt% = percentage of weight, CFU = colony forming units, ppm = Parts per million, ppb = Parts per billion, ND = None Detected, BLQ = Below Limit of Quantification, LOQ = Limit of Quantification, LOD = Limit of Detection, RL = Reporting Limit, * = Mixture of Isomers

Authorized by:

Kintesh Sutaria
QA Specialist

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Terpene Analysis	LOD (%)	LOQ (%)	wt%
(R)-Endo-(+)-Fenchyl Alcohol	0.0010	0.025	0.1033
Caryophyllene oxide	0.0007	0.025	0.0741
Beta-Myrcene	0.0005	0.025	0.0581
Farnesol*	0.0016	0.050	BLQ
Camphene	0.0017	0.025	0.0301
Terpinolene	0.0008	0.025	BLQ
Borneol	0.0007	0.025	BLQ
Fenchone	0.0008	0.025	BLQ
Carvone	0.0007	0.025	ND
Pulegone	0.0007	0.025	ND
Verbenone	0.0007	0.025	ND
Citral*	0.0021	0.025	ND
Geraniol	0.0007	0.025	ND
Safranal	0.0004	0.025	ND
Nerol	0.0010	0.025	ND
Citronellol	0.0008	0.025	ND
Octyl Acetate	0.0009	0.025	ND
Terpinen-4-ol	0.0010	0.025	ND
Camphor	0.0008	0.025	ND
Isoborneol	0.0006	0.025	ND
Menthol (Hexahydrothymol)	0.0010	0.025	ND
Menthone*	0.0007	0.025	ND
Squalene	0.0029	0.050	ND
Phytol*	0.0018	0.050	ND
Nootkatone	0.0018	0.025	ND
Phytane	0.0009	0.025	ND
(+)-Cedrol	0.0006	0.025	ND
Guaiol	0.0005	0.025	ND
trans-Nerolidol	0.0006	0.025	ND
cis-Nerolidol	0.0015	0.025	ND
Valencene	0.0005	0.025	ND
Eugenol	0.0023	0.025	ND
Alpha-Cedrene	0.0006	0.025	ND
Geranyl acetate	0.0009	0.025	ND
Carvacrol	0.0009	0.025	ND
Thymol	0.0012	0.025	ND
d-Valerolactam (2-piperidone)	0.0012	0.025	ND
(-)-Piperitone	0.0017	0.025	ND
Isobornyl Acetate	0.0018	0.025	ND
Isopulegol	0.0007	0.025	ND
Alpha-Thujone	0.0005	0.025	ND
Sabinene Hydrate	0.0010	0.025	ND
Gamma-Terpinene	0.0007	0.025	ND
Eucalyptol	0.0006	0.025	ND

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Terpene Analysis	LOD (%)	LOQ (%)	wt%
Cymene*	0.0006	0.025	ND
Ocimene	0.0005	0.025	ND
Alpha-Terpinene	0.0004	0.025	ND
Alpha-Phellandrene	0.0010	0.025	ND
(1S)-3-Carene	0.0009	0.025	ND
Sabinene	0.0009	0.025	ND
Total of all quantified terpenes:			7.857

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Details of Testing

Cannabinoid Analysis

LAB-MTD-020: Determination of 16 Cannabinoids in Cannabis Flowers, Extracts, Topicals, Tablets and Isolates by HPLC
LAB-MTD-039: Determination of 11 Cannabinoids in Cannabis Edibles by HPLC
LAB-MTD-051: Assay of Cannabinoids in Cannabis Flower as per DAB by HPLC
LAB-MTD-052: Identification of CBD and THCA as per DAB by Thin-Layer Chromatography

Terpene Analysis

LAB-MTD-044: Determination of Terpene Content in Cannabis Dried Flower, Fresh Flower and Extracts by GC-MS

Pesticide Analysis

LAB-MTD-010: Determination of Health Canada Pesticide Residues and Toxins in Dried Cannabis Flower by LC-MS/MS and GC-MS/MS
LAB-MTD-040: Determination of EP 2.8.13 Pesticide Residues in Cannabis Extracts by GC-MS/MS
LAB-MTD-041: Determination of EP 2.8.13/USP 561 Pesticide Residues in Cannabis Flower by GC-MS/MS and LC-MS/MS
LAB-MTD-046: Determination of Health Canada Pesticides and Toxins in Cannabis Extracts by LC-MS/MS
LAB-MTD-048: Determination of Health Canada Pesticide Residues and Toxins in Fresh Cannabis Flower by LC-MS/MS and GC-MS/MS
LAB-MTD-055: Determination of Israel Pesticide Residues in Dried/Fresh Cannabis by LC-MS/MS and GC-MS/MS

Mycotoxin Analysis

LAB-MTD-010: Determination of Health Canada Pesticide Residues and Toxins in Dried Cannabis Flower by LC-MS/MS and GC-MS/MS
LAB-MTD-029: Determination of Toxins in Tablet Samples by LC-MS/MS
LAB-MTD-037: Determination of Mycotoxins in Topical/Cream Samples by LC-MS/MS
LAB-MTD-046: Determination of Health Canada Pesticides and Toxins in Cannabis Extracts by LC-MS/MS
LAB-MTD-048: Determination of Health Canada Pesticide Residues and Toxins in Fresh Cannabis Flower by LC-MS/MS and GC-MS/MS

Flavonoid Analysis

LAB-MTD-045: Determination of Flavonoids in Cannabis Dried Flower, Fresh Flower, and Extracts by LC-MS/MS

Peroxide Value, p-Anisidine and Acidity (FFA) Analysis

LAB-MTD-049: Determination of Peroxide Value, p-Anisidine, and Acidity (FFA)

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Details of Testing

Microbial Analysis

- MIC-MTD-001: Microbial Analysis of Cannabis Flower and Oil by qPCR
- MIC-MTD-006: Determination of Viruses in Cannabis via qPCR and ELISA
- MIC-MTD-007: Microbial Analysis of Cannabis by Culture Techniques
- MIC-MTD-009: Cannabis Gender Determination by qPCR
- MIC-MTD-010: Identification A and Identification B of Cannabis by DAB Monograph
- MIC-MTD-011: Analysis of Shigella Species in Cannabis and Cannabis Infused Products
- MIC-MTD-008: Analysis of Listeria Monocytogenes in Cannabis and Cannabis Infused Products
- MIC-MTD-012: Microbial Analysis of Cannabis and Cannabis Infused Products by TEMPO

Moisture Analysis

- LAB-MTD-017: Determination of Moisture Content in Cannabis Flower
- LAB-MTD-031: Water Activity Meter Setup and Operation
- LAB-MTD-053: Determination of Moisture Content by Loss on Drying Technique using Vacuum Oven
- LAB-MTD-056: Determination of Moisture Content by Karl Fischer Titration

Sample Appearance and Foreign Matter

- LAB-MTD-022: Sample Appearance and Detection of Foreign Matter Content in Cannabis Samples

Total Ash Analysis

- LAB-MTD-043: Total Ash by Muffle Furnace in Cannabis Products

Residual Solvents Analysis

- LAB-MTD-036: Determination of Residual Solvents in Cannabis Oil by GC-MS
- LAB-MTD-028: Determination of Residual Solvents in Tablet Samples by GC-MS
- LAB-MTD-034: Determination of Propane and Butane in Cannabis Oil by GC-MS
- LAB-MTD-038: Determination of Toluene in Cannabis Isolate by GC-MS
- LAB-MTD-054: Determination of Acetic Acid in Flavour, Cannabis Vape Mix Oil and Cannabis Infused Flower by GC-MS

Heavy Metal Analysis

- LAB-MTD-027: Determination of Heavy Metals in Cannabis Samples (Cream/Topicals, Tablets and Edibles) by ICP-MS
- LAB-MTD-050: Multi-Element Analysis of Cannabis Dried Flower, Fresh Flower, Extracts, and Rolling Papers by ICP-MS
- LAB-MTD-058: Determination of Palladium (Pd) in Cannabis Dried Flower, Fresh Flower and Extracts by ICP-MS

pH Analysis

- MIC-MTD-013: Determination of pH using pH Meter

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