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To Whom It May Concern,

The following is a summary of the analytical methods implemented by Infinite Chemical Analysis Labs for analysis of cannabis/cannabis-derived products:

Pesticide & Mycotoxin Analysis: The concentrations of regulated mycotoxins and pesticides in cannabis/cannabis-containing products are determined using a combination of gas chromatography triple quad mass spectrometry (GC MS/MS) and liquid chromatography triple quad mass spectrometry (LC-MS/MS). Mycotoxins & Pesticide residues are extracted from homogenized samples using a solvent prepared in-house which contains surrogate standards to account for any losses from extraction. Extracts are diluted and filtered appropriately before injection into instruments. Analyte concentrations detected above the limits of quantitation are quantified against a calibration curve prepared using certified reference materials. In addition to retention times, multiple ion transitions are monitored to verify analyte identity.

Potency Analysis: Concentrations of cannabinoids (∆9-THC, ∆8-THC, CBD, THCa, CBDa, CBG, CBGA, CBN, THCV, CBDV, CBC and others upon request) are determined using ultra high performance liquid chromatography coupled with a diode array detector (UHPLC-DAD). Depending on the sample, homogenization is achieved using several methods including cryo-grinding, blending,and milling. Cannabinoids are extracted from homogenized samples with an appropriate solvent, and generally incorporating additional processing steps such as vortexing and/or sonication. Extracts are diluted according to matrix type and filtered appropriately before injection into the instrument. Cannabinoid concentrations are quantified against a calibration curve prepared from certified reference materials. Calibration checks are implemented regularly to ensure high accuracy in quantitation.

Heavy Metal Analysis: The concentrations of arsenic (As), cadmium (Cd), mercury (Hg), and lead (Pb) in cannabis/cannabis-containing material are determined using inductively-coupled plasma mass spectrometry (ICP-MS). Homogenized samples are weighed in a microwave reaction vessel and digested with nitric acid in a microwave reactor. The resulting sample digest is diluted and centrifuged before injection into the instrument. Analyses are conducted in kinetic energy discrimination (KED) mode using helium as the collision gas and argon as the carrier gas. Internal standards are used to optimize accuracy and precision.

Residual Solvent Analysis: Concentrations of residual solvents are determined by headspace gas chromatography single quad mass spectrometry (HS-GC-MS). Residual solvents are extracted from samples using a non-interfering solvent; additional steps such as vortexing are implemented if necessary. Extracts are accurately aliquoted into headspace vials prior to injection into the HS-GC
MS. Calibration standards are prepared using certified reference material standards. In addition to retention times, confirming ions are monitored to verify analyte identity.

Terpene Analysis: Terpene concentrations are determined by HS-GC-MS. Terpenes are extracted from samples with an appropriate solvent containing a number of internal standards to ensure accuracy. Extracts are diluted further if necessary and aliquoted into a headspace vial. Detected terpenes are quantified against a calibration curve prepared from certified reference materials. In addition to retention times, confirming ions are monitored to verify analyte identity.

Microbial Analysis: Real-Time Polymerase Chain Reaction (qPCR) is used to perform microbial analysis that determines the presence of potentially pathogenic microbes. After a sample is collected and homogenized, an aliquot is taken from the batch, enriched with a broth, and incubated for 24 hours to

encourage microbial growth. After incubation, cells in the sample are lysed and the newly exposed DNA is extracted. The isolated DNA is washed and added to a mixture containing fluorescent probes that intercalate into DNA sequences found in the target microbes. The fluorescent probes activate upon DNA replication in a thermal cycler and fluorescence is measured to determine the absence or presence of the target microbes.

Foreign Material Testing: Samples are examined for foreign particles including insect fragments, hairs, mammalian excreta, mold, sand, soil, cinders, and dirt. While most can be seen by eye, a digital microscope magnifier is used for closer examination.

Moisture Analysis: Moisture content of cannabis material is determined by a moisture analyzer. A sample of appropriate quantity is weighed in the analyzer and loss of moisture is calculated gravimetrically.

Water Activity Analysis: Water activity of solid samples is measured using a water activity meter. A sample of appropriate mass is placed in the sealed chamber of the water activity meter, and the sample is permitted to equilibrate for a predetermined period of time. Water activity values are measured against a calibration curve prepared from certified reference materials and calibration checks are implemented regularly.

Regards,

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