HAMILTON®

Cannabinoid Sample Preparation
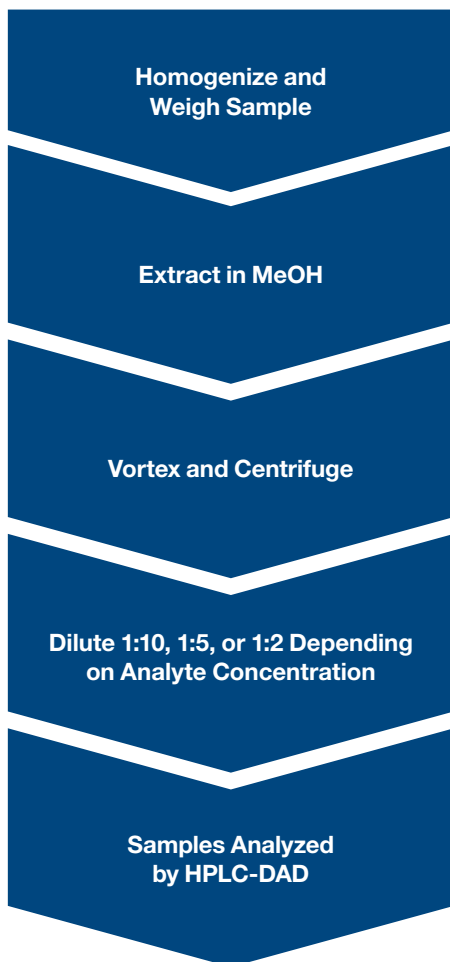## Increased Accuracy and Time Savings for HPLC Analysis

Demand for Accurate Measurements

In today's growing Cannabis industry, customers and state regulations demand accurate measurements of active compounds in cannabis products. The Microlab® 600 Diluter/Dispenser makes measurements more reliable, allows the method to use less consumables, and cuts down on preparation time.

> "My biggest highlights of the Microlab 600 are improved throughput, reduced consumables, and significantly reducing analyst to analyst variability." — *Lucas Mason, Aurum Labs*

Cannabinoid Method Summary

- **Homogenize and Weigh Sample**
- **Extract in MeOH**
- **Vortex and Centrifuge**
- **Dilute 1:10, 1:5, or 1:2 Depending on Analyte Concentration**
- **Samples Analyzed by HPLC-DAD**

Faster Sample Prep and Less User Variation with the Microlab 600 Diluter/Dispenser

- Dramatic time savings (reduction in overall labor and greater throughput)
- Reduced consumable cost
- Virtually eliminates analyst-to-analyst variability
- Inert flow path

Pipettes can be problematic in any laboratory setting. Common problems include: significant variation between users, inconsistencies with different solution types, and performance variation at different elevations. These problems are eliminated with the Microlab 600. The Microlab 600 positive displacement system allows for extremely accurate dilution/dispense volumes on demand. The Microlab 600 can reduce %RSD by more than 50% compared to hand pipetting methods. See Figure 1.
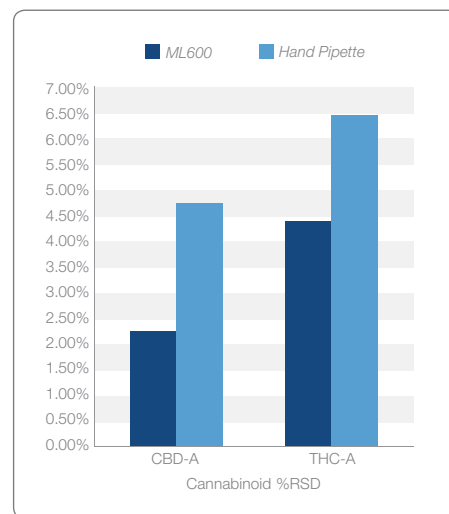

Figure 1: %RSD testing comparison between the ML600 and traditional hand pipetting methods for CBD-A and THC-A.

Reduced User-to-User Variation

The Microlab 600 Diluter/Dispenser automates method steps prone to user variation.

In addition, methods can be saved as favorites for quick and easy access. The instrument performs all the precision work using high resolution syringe pumps, so it is not necessary to use a special technique. Once programmed, the instrument can be handed off to a new user with minimal training and the same results will be obtained when compared to a more experienced user. The instrument utilizes an encoder that ensures the positioning of the syringe drive mechanism, reducing variations between users, equal or greater than 99% accuracy.

Eliminate Expensive Consumables

The Microlab 600 Diluter/Dispenser requires less solution to attain the correct dilution concentration for a sample, which means spending less on solvents and reagents. The instrument remains accurate down to the microliter volume range so the user can get the exact concentration needed at the exact volume desired. Reduce consumables consumption by 50% or more when using the Microlab 600.

Increase Throughput

Because the Microlab 600 Diluter/Dispenser does not require additional glassware to prepare a sample or standard solutions, the time it takes to prepare solutions and clean up afterwards is reduced considerably. Making different dilution concentrations on the fly is as easy as inputting a different solvent volume in the Quickstart or the Dilution Wizard. These improvements to workflow create significant time savings, freeing up your schedule for more important tasks.

Ordering Information

Description	Part Number
Microlab 615 Basic Dual Syringe Diluter	ML615-DIL
Microlab 625 Advanced Dual Syringe Diluter	ML625-DIL
Microlab 610 Basic Single Syringe Dispenser	ML610-DIS
Microlab 620 Advanced Single Syringe Dispenser	ML620-DIS
Microlab 615 Basic Dual Syringe Dispenser	ML615-DIS
Microlab 625 Advanced Dual Syringe Dispenser	ML625-DIS

HAMILTON®