

## **Solutions for Cannabis Testing**

Sample Prep Made Simple



Metals	
Potency	
Pesticides	
Terpenes	



## Sample Prep Made Simple

With more countries approving recreational and medical marijuana use each year, the need for accurate testing of cannabis and cannabis based products is critical. Samples ranging from flower to edibles to consumer products and more present challenges in both sample preparation and analysis. Sample preparation is a critical step prior to analysis. Poor sample preparation can lead to inaccurate test results which could cause the product to be rejected or improperly released.

CEM provides systems and support to simplify cannabis testing. For nearly 45 years we have been dedicated to helping our customers analyze their products to ensure they meet regulatory and quality control requirements. As your partner in cannabis testing, our dedicated team of applications chemists is always ready to help you with method development. Our expansive network of service associates will make sure your system is running in peak condition when you need it most and our research scientists are actively working with organizations like AOAC and ASTM to develop official methods to help standardize testing in the cannabis industry.

Microwave digestion has become the industry standard for sample preparation for trace metals analysis. Following both AOAC and ASTM methodologies, the MARS 6™ is the preferred system of cannabis labs across the world. Utilizing a simple to use 3-piece vessel, up to 40 samples can be prepared simultaneously. The MARS 6 does not require peripherals such as pressurized nitrogen or chillers to cool the system. The simplicity of the MARS 6 combined with the highest throughput provides labs with the lowest cost per test of any microwave digestion system.

CEM provides systems for rapid, simple cannabis testing of potency, pesticides, terpenes, and more. Great analysis starts with accurate and repeatable sample preparation. The EDGE® simplifies sample prep by using automation to accurately perform analytical extractions for GC and HPLC analysis, without user intervention. But sample prep is only the first step for accurate analysis. Analyzing THC and other cannabinoids in starting materials and final products ensures compliance with government regulations. Terpene profiling is critical for delivering high quality products by improving flavor and aromatic properties. Determining pesticide contamination levels ensures product safety and compliance.

## Support when you need it, where you need it.

Service and applications support is just around the corner. With global sales and support offices and 24-hour telephone support we are here to help when and where you need it.



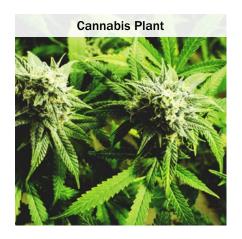
# Microwave Digestion

The MARS 6 is the perfect digestion tool for cannabis industry. CEM scientists were instrumental in working with both AOAC and ASTM working groups to establish the microwave digestion requirements for cannabis products. These methodologies provide for the digestion of all sample types such as flower, isolates and concentrates, edibles, and topicals in a single microwave run. Individual runs based on sample type are a thing of the past. Sample sizes of up to 0.5 grams can be easily prepared in the 110 mL MARSXpress Plus style vessel meeting requirements for states such as California. No other system can match the performance of the MARS 6 for the cannabis and hemp industry.

The CEM applications team has been solving sample preparation problems for nearly 40 years. With a combined experience of over 100 years, our chemists are here to help and we never charge a fee for applications assistance. With CEM, our commitment to you does not end when your system ships, it begins!



#### Digest















### Solvent Extraction

The EDGE extraction system simplifies cannabis sample preparation for potency, pesticides, terpenes, and mycotoxins. The system can perform extractions in as little as 7 minutes in a highly reproducible format with the same extraction efficiencies as classic techniques like Soxhlet and QuEChERS.

The heart of the EDGE centers around the Q-Cup™, the sample cell that assembles in seconds and can be layered with salts, sorbents, and sample to perform both sample clean-up and extraction in a single automated step. In the 7 minute run, the EDGE performs sample clean-up, extraction, filtration, cooling, and a complete system wash, to eliminate carry-over, and produces a sample ready for analysis.



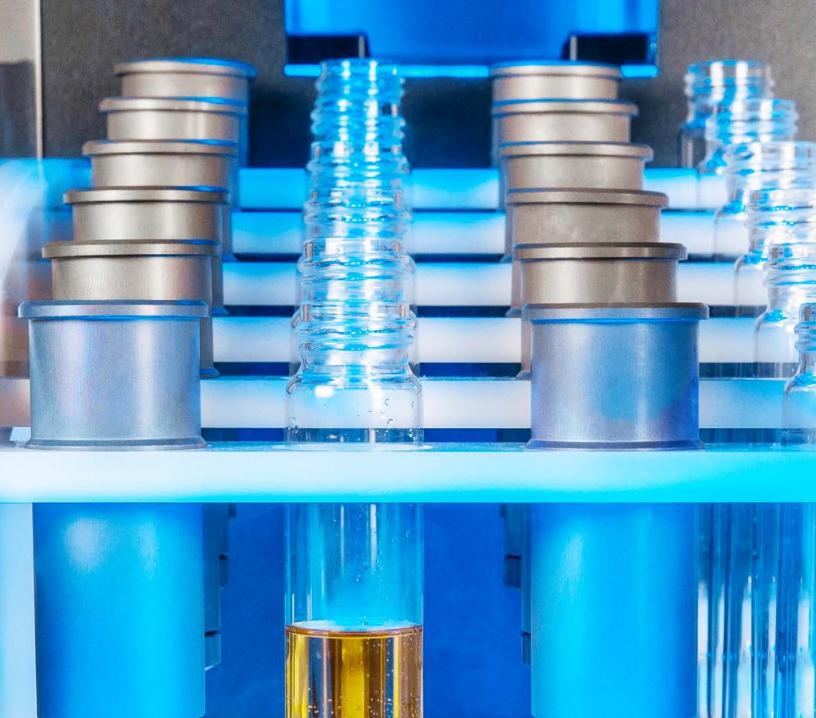
#### Extract

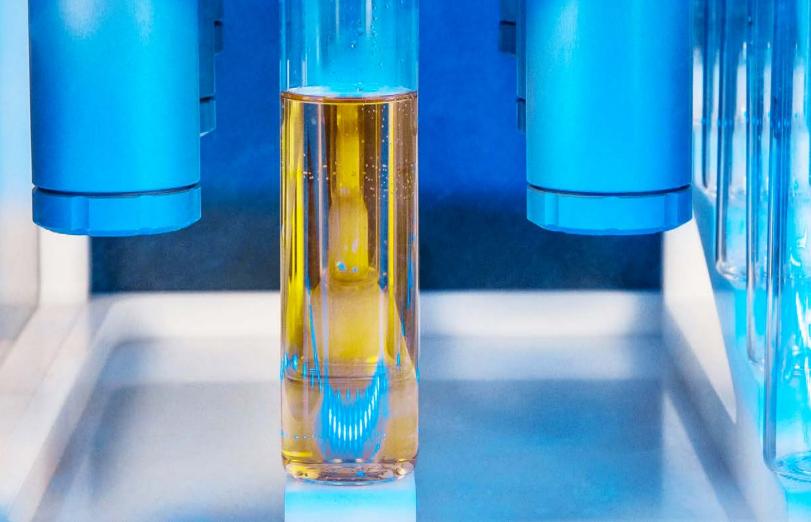
















United States (Headquarters): 800-726-3331 | info@cem.com For distributors and subsidiaries in other regions, visit cem.com/contact

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