

Metal Certified Reference Material Mixes

Cannabis Testing

It is critical to accurately monitor levels of elemental impurities in cannabis products, both to ensure regulatory compliance—and more importantly—to ensure consumer and patient safety. Trace levels of heavy metals such as arsenic, cadmium, mercury and lead may accumulate in plant material through uptake from soil and, more commonly, may be introduced through the use of certain fertilizers.

With a new line of Supelco[®] heavy metal mixes, spend less time preparing standards, leaving more time to help solve your customers' challenges. These mixes are each tailored to US state specific regulations and offer concentrations that match your specific regulatory bodies' action and reporting limits. And with certification under ISO/IEC 17025 and ISO 17034 for all *TraceCERT*[®] mixes, you can be sure sure that you have the most accurate, consistent and stable certified reference materials available.

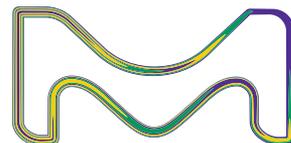
Unique Features

- Solutions are specifically designed to meet the state specific heavy metal limits
- Concentration ratios correspond to state requirements: easily bracket action levels
- Minimize handling steps and reduce error sources
- All metal solutions are Certified Reference Materials (CRMs), produced under the double accreditation of ISO/IEC 17025 and ISO 17034
- Innovative packaging format ensures certified concentrations during storage
- Comprehensive certificate of analysis provided for each batch

Our high standards match yours.

Please check our website for more information:

SigmaAldrich.com/cannabis



Notwithstanding recent changes in certain state laws, federal law remains unchanged and the cultivation, possession, and/or sale of marijuana and related cannabis products continues to be illegal under federal law. In addition, the distribution of marijuana to minors under the age of 21 years remains illegal under state law.

Product List

Cat. No.	Description	Certified Metal Concentrations (mg/L)			
		As	Cd	Hg	Pb
All mixes are in 12% HNO ₃ . Unit Volume: 100 mL					
45-94846	Heavy metal mix I, TraceCERT®, acc. to California state regulation (inhalable cannabis and cannabis products) and Arkansas state regulation	20	20	10	50
45-94794	Heavy metal mix II, TraceCERT®, acc. to California state regulation for other cannabis & cannabis products	15	5	30	5
45-94772	Heavy metal mix III, TraceCERT®, acc. to Colorado state regulation	40	40	20	100
45-95094	Heavy metal mix IV, TraceCERT®, acc. to Nevada and Washington state regulation	200	82	40	120
45-95117	Heavy metal mix V, TraceCERT®, acc. to Connecticut, and New Mexico state regulation	14	9	29	29
45-04295	Heavy metal mix VI, TraceCERT®, acc. to Vermont state regulation	100	41	20	100
45-03056	Heavy metal mix VII, TraceCERT®, acc. to Pennsylvania state regulation	15	3	5	10
45-95562	Heavy metal mix VIII, TraceCERT®, acc. to New Hampshire state regulation	5	3	9	9

Additional Information

So far, 10 U.S. states have legalized cannabis for recreational use, and 33 for medical use. Australia (medical), Uruguay and Canada (medical & recreational) also legalized the use of cannabis. Alongside tests for cannabinoids, terpenes, residual solvents, pesticides and microbiological contamination, it is important to test for harmful heavy metals such as Cd, As, Hg and Pb.

When processing cannabis into concentrations and extracts, monitoring for elemental impurities becomes even more important. This is because the common industrial techniques, such as supercritical fluid and hydrocarbon extraction, have the potential to

concentrate not only the compounds of interest—cannabinoids and/or terpenes—but also impurities such as heavy metals.

When preparing standards for calibration and QC of the ICP instruments used to monitor elemental impurities, labs typically need to accurately prepare stock solutions consisting of several different standards. This involves multiple handling steps with hazardous acids and introduces the potential for increased error/uncertainty with each transfer and dilution.

Not anymore: with our comprehensive portfolio of Supelco® certified reference material mixes for cannabis samples, your heavy metal analysis will be accurate, and also meet your specific regulatory compliance needs.

To get an overview on our cannabis testing offer, visit us at SigmaAldrich.com/cannabis

To place an order or receive technical assistance

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Safety-related Information: SigmaAldrich.com/safetycenter

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