

Protocol for the Sampling and Analysis of Finished Marijuana Products and Marijuana Products for Marijuana Establishments, Medical Marijuana Treatment Centers, and Colocated Marijuana Operations

*Exhibit 4. Analysis Requirements^a and Recommended Limits for Metals in Finished
Medical Marijuana Products*

Implemented March 11, 2021 and Revised December 30, 2021

This document is issued by the Cannabis Control Commission. The applicable Marijuana laws, which include M.G.L. c. 94I, 94G, 935 CMR 500.000 and 935 CMR 501.000, should be reviewed as they may provide or clarify the legal requirements related to this document. This protocol document should be checked periodically for revisions. Questions with regards to this document may be directed to Commission@CCCMass.com.



(a) All Uses^b

Metal	Upper Limit (µg/kg)
Arsenic (inorganic)	200
Cadmium	200
Lead	500
Mercury (total)	100

(b) Ingestion Only^c

Metal	Upper Limit (µg/kg)
Arsenic (inorganic)	1500
Cadmium	500
Lead	1000
Mercury (total)	1500



If the quantification of metals in finished Marijuana is below the upper limits specified for “Ingestion Use Only”, as described in Exhibit 4 (b), the production batch of finished Marijuana must bear the additional label:

“THIS PRODUCT HAS BEEN EVALUATED FOR IMPURITIES BASED ON ORAL CONSUMPTION ONLY. DO NOT INHALE THIS PRODUCT.”

Please note that these Protocols are continually evaluated and revised based upon new scientific and industry information.

^a Analytical testing to determine the upper limits for (a) All Uses, and (b) Ingestion Only, must be performed consistent with the following United States Pharmacopeia (USP) chapter:

- USP Chapter <233> Elemental Impurities— Procedures/Chemical Tests

^b These limits apply to finished plant material, cannabis resin, cannabis concentrates intended for ingestion, inhalation and dermal application. These limits are based in inhalation limits described in USP<232> Elemental Impurities—Limits.

^c These limits apply to finished plant material, cannabis resin, cannabis concentrates intended for ingestion only. These limits are based on limits specified in USP<2232> Elemental Contaminants in Dietary Supplements.

