

Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries

Exhibit 2. Contaminants of Concern and Testing Requirements for Medical Marijuana Products

Revised – December 1, 2017

This document was issued originally by the Department of Public Health (DPH). As part of the transfer of the medical-use of marijuana program on or before December 31, 2018, the Commission adopted this document. We suggest that before you rely on the contents of this document, you check the applicable medical-use marijuana laws, which include M.G.L. c. 94I and 935 CMR 501.000, as they may provide or clarify the legal requirements related to this document. We also suggest that you periodically check for revisions to this document. Questions with regards to this document may be directed to CannabisCommission@Mass.gov.

Production Stage/Product	Contaminants of Concern	Required Testing
Cultivation <i>[see Protocol for Sampling and Analysis of Environmental Media for Massachusetts Registered Medical Marijuana Dispensaries]</i>	<ul style="list-style-type: none"> • Non-organic pesticide residues, metals, and other organic chemicals (e.g., PCBs) taken up by plants from soil/growing media • Non-organic pesticides, metals, and other organic chemicals taken up by plants from water source • Non-organic pesticides applied to plants in noncompliance • Unidentified non-organic pesticides, metals, and other chemicals in non-pesticide agricultural or hydroponic products • Fungi/microbes growing on plants or equipment 	<p>Test soil or other solid media:</p> <ul style="list-style-type: none"> • Pesticides • Metals, and other organic chemicals (e.g., PCBs) <p>Test water sources:</p> <ul style="list-style-type: none"> • Pesticides, • Metals • Bacteriological contaminants



Production Stage/Product	Contaminants of Concern	Required Testing
Finished Plant Material	<ul style="list-style-type: none"> • Contaminants remaining from cultivation • Fungal/microbial growth during finishing 	<p>All Production Batches:</p> <ul style="list-style-type: none"> • Pesticides and plant growth regulators <p>Production Batches to be Dispensed as Finished Medical Marijuana Product:</p> <ul style="list-style-type: none"> • Metals • Bacteria/fungi/mycotoxins • Cannabinoid profile
Cannabis Resin	<ul style="list-style-type: none"> • Contaminants remaining from cultivation • Solvents if used to extract resin • Fungal/microbial growth during production 	<p>All Production Batches:</p> <ul style="list-style-type: none"> • Solvents(if used) • Metals <p>Only Production Batches to be Dispensed as Medical Marijuana Product:</p> <ul style="list-style-type: none"> • Bacteria/fungi/mycotoxins • Cannabinoid profile
Cannabis Concentrates	<ul style="list-style-type: none"> • Contaminants remaining from cultivation • Solvents used to extract oil • Fungal/microbial growth during production 	<p>All Production Batches:</p> <ul style="list-style-type: none"> • Solvents • Metals <p>Only Production Batches to be Dispensed as Medical Marijuana Product:</p> <ul style="list-style-type: none"> • Bacteria/fungi/mycotoxins • Cannabinoid profile
MIPs	<ul style="list-style-type: none"> • Contaminants in finished marijuana ingredients • Fungal/microbial growth during production 	<p>All Production Batches:</p> <ul style="list-style-type: none"> • Bacteria/fungi/mycotoxins • Cannabinoid profile

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