



The Commonwealth of Massachusetts  
 Executive Office of Health and Human Services  
 Department of Public Health  
 Bureau of Health Care Safety and Quality  
**Medical Use of Marijuana Program**  
 99 Chauncy Street, 11<sup>th</sup> Floor, Boston, MA 02111

CHARLES D. BAKER  
 Governor

KARYN E. POLITO  
 Lieutenant Governor

MARYLOU SUDDERS  
 Secretary

MONICA BHAREL, MD, MPH  
 Commissioner

Tel: 617-660-5370  
[www.mass.gov/medicalmarijuana](http://www.mass.gov/medicalmarijuana)

**Title:** 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**

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

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

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

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