

**IN RESPONSE TO BILL C-45
BRIEF IN SUPPORT OF
ORGANIC SOLVENT CANNABIS EXTRACTION**

To: House of Commons of Canada

Submitted By: Abattis Bioceuticals Corporation

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Re: LICENSED ACTIVITIES FOR CANNABIS OIL EXTRACTION

INTRODUCTION

Organic solvent processing is a safe and necessary commercial method of the extraction of oil from the cannabis plant.

Proposed Bill C-45 (the “Act” or “Cannabis Act”) effectively criminalizes organic solvent cannabis processing in its entirety, without providing for any viable alternatives or exclusions.

To wit, the Act provides that:

Production

12 (1) Unless authorized under this Act, it is prohibited

(a) to obtain or offer to obtain cannabis by any method or process, including by manufacturing, by synthesis or by using any means of altering the chemical or physical properties of cannabis; or

(b) to alter or offer to alter the chemical or physical properties of cannabis by the use of an organic solvent.

Authorized alteration

(2) An individual may alter the chemical or physical properties of any cannabis that they are not prohibited by this Act from possessing.

“Organic solvent” is defined in the Act as “any organic compound that is explosive or highly or extremely flammable, including petroleum naphtha and compressed liquid hydrocarbons such as butane, isobutane, propane and propylene.” *Proposed Bill C-45, Part 1, Division 1, Section 12(3)*

While organic solvent processing is the most cost-effective, efficient and commercially viable method of cannabis extraction, the Act provides no alternatives or exclusions for the proper use of organic solvent.

Organic solvent extraction is a safe, viable and even preferred method of cannabis oil extraction – the Act should regulate it accordingly in its role of licensing and overseeing the commercial industry.

Respectfully, the Act should be amended to allow for commercial and industrial organic solvent cannabis extraction under strict regulatory conditions, guidelines and licensing.*

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****Note. Organic solvent processing should only be conducted by properly trained operators with certified equipment in controlled laboratory settings with proper ventilation and under spark proof conditions (e.g., Class 1, Division 1 rooms).***

ABOUT ORGANIC SOLVENT EXTRACTION

Organic extraction, including the use of hydrocarbon solvents, is a common commercial method of extracting essential oils from cannabis and hemp plants utilizing organic solvents such as ethanol, butane, propane and hexane.

The solvents strip the plant of its essential oils including THC, CBD, terpenes, vitamins, antioxidants and other good things, thereby creating a highly potent oil. Hydrocarbon extraction is the most efficient, cost effective and best tasting means of extraction.

ORGANIC HYDROCARBON EXTRACTION:

- is the most efficient means of cannabis extraction
- is the most cost-effective means of cannabis extraction
- is the most widely used method of extraction
- produces a great tasting final product
- isn't harmful to the environment
- is perfectly safe to consume and enjoy

ORGANIC HYDROCARBON EXTRACTION IS THE MOST COST EFFECTIVE & EFFICIENT METHOD OF CANNABIS EXTRACTION

Organic hydrocarbon extraction equipment costs less than half of comparable supercritical CO2 equipment, while providing for 900% more efficient extraction. For example, a CO2 extraction system (costing more than \$150,000) processes 2.4 kilograms of cannabis plant in approximately 8 - 10 hours, while a comparable hydrocarbon unit (costing less than \$50,000) processes the same amount in less than 1 hour.

The cost effectiveness and efficiencies of hydrocarbon extraction are passed along to consumers who benefit from more availability of a wider variety of cannabis oil products at lower retail costs, thereby providing for "reasonable access" for individuals who require marijuana for medical purposes as required by the Federal Court of Canada's February 2016 decision in *Allard v. Canada*.

ORGANIC SOLVENT EXTRACTION IS THE MOST PREVALENT METHOD OF CANNABIS EXTRACTION

Organic solvents, such as butane, propane and ethanol are the most commonly used methods of extraction in the United States cannabis industry with nearly 90% of all extract production being produced with the use of such solvents.

Organic solvent extraction is legal in every regulated jurisdiction in the United States, including Colorado, Washington, Oregon, California, Nevada, Arizona, Michigan, Ohio, Pennsylvania and Massachusetts, with more states coming on line as state laws and regulations.

ORGANIC SOLVENT EXTRACTION IS OPERATOR SAFE

A professional closed loop hydrocarbon extraction system in a controlled lab environment is extremely safe.

Because the plant's essential oils easily attach to hydrocarbon solvents, hydrocarbon extractions require very low pressures, usually never more than 150 PSI. Compare that to CO2 extractors, which require pressure often well in excess of 1,500 PSI and as much as 8,700 PSI.

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While organic solvents are combustible, when used in a regulated Class 1, Division 1 laboratory, with certified hydrocarbon extraction equipment and properly trained operators, hydrocarbon extraction is extremely safe. This is because if there is no spark, there is no risk of combustion. A Class 1, Division 1 room (which is spark free and rapidly exchanges air) is common for other applications in the oil and natural gas industry, soy industry, and paint production.

The United States has over 2,500 licensed and regulated cannabis-processing companies using organic solvent methods of extraction, including hydrocarbon. Furthermore, the practice of organic hydrocarbon solvent extraction already exists for the production of soybean oil extraction in dozens of licensed facilities throughout Canada.

Certified hydrocarbon extraction systems that meet CSA and CRM requirements are compliant for use in all Canadian jurisdictions when all applicable codes are interpreted and presented.

ORGANIC HYDROCARBON EXTRACTION IS ENVIRONMENT AND CONSUMER SAFE

With a certified closed loop hydrocarbon extraction system, virtually all butane and propane solvents are reclaimed during the process and not released into the atmosphere. Furthermore, what may be left over is purged (or cooked off) during post processing of the cannabis oil. Not unlike your backyard propane barbecue grill. And the resulting cannabis extract is delicious. Organic hydrocarbon extraction has won more consumer awards than all other extraction methods combined.

ORGANIC HYDROCARBON EXTRACTION IS ALREADY A HEALTH CANADA APPROVED EXTRACTION METHOD

Hexane solvent, for example, is widely used in the extraction of vegetable oil from seeds such as soybeans, corn, canola, safflower, sunflower, cotton, and flax. In addition, hexane solvent can be used to extract fish protein, shea butter, and a variety of flavor extracts. Extracts made from organic hydrocarbon extraction are in food products we consumer and enjoy every day. This is a commonly used extraction method in Canada.

CONCLUSION/RECOMMENDATION

Organic solvent extraction is the most cost effective and efficient method of cannabis extraction. Allowing for regulated commercial hydrocarbon and other organic solvent extraction, including ethanol, would provide for increased “reasonable access” to individuals who require marijuana for medical purposes by increasing cannabis oil production, thereby increasing supply and lowering retail costs.

Organic solvent cannabis processing is extremely safe when done in a controlled and professional laboratory or industrial environment, pursuant to established rules and regulations.

Organic solvent hydrocarbon extraction is already a Health Canada approved extraction method that should be applied to the cannabis industry, to the benefit of producers and consumers alike.

The Cannabis Act should not criminalize legitimate, commercially viable, efficient and safe means of cannabis extraction, when properly licensed and regulated.

Respectfully, the Act should be amended to allow for commercial and industrial organic solvent cannabis extraction under strict regulatory conditions, guidelines and licensing.

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About Abattis Bioceuticals Corporation:

Based in Vancouver, British Columbia, Abattis Bioceuticals Corporation (“Abattis”) is publicly traded specialty agricultural technology and biotechnology company which aggregates, integrates, and invests in agricultural technologies and biotechnology services for the legal cannabis industry developing in Canada. The Company has successfully developed and licensed natural health products, medicines, extractions, and ingredients for the biologics, nutraceutical, bioceutical, and cosmetic markets. In addition, Abattis owns one of the few Health Canada approved testing labs with a Controlled Substance License to formulate, test and develop cannabis derivatives and related products through formulation and patented extraction technologies. The Company follows strict standard operating protocols and adheres to the applicable laws of Canada and foreign jurisdictions. For more information, please visit www.abattis.com.

About Precision Extraction Corporation:

Precision Extraction Corporation is the purveyor of the Precision® Extraction Solutions brand of extraction equipment and services. Based in metropolitan Detroit, Michigan USA, and providing services worldwide, Precision® is the industry leader in cannabis extraction site planning, industrial design, equipment, training and consulting. Precision® works with local, state, provincial and federal units of government in promulgating laws and regulations that provide for cannabis extraction that ensures proper operation for efficient commercial processing and the safety of persons, property and consumers. For more information, please visit www.precisionextraction.com.

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