How Probiotic Natural Health Products are Regulated in Canada

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DISCLAIMER

I am not a lawyer.

Area of experience and expertise is pre-market assessment of Natural Health Products for safety, efficacy and quality.

Any opinions presented herein are my own and not necessarily shared by the Minister of Health or Health Canada.

Please ask about unfamiliar acronyms.
Natural Health Products Directorate (NHPD)

Mandate:

To ensure consumers have ready access to natural health products that are safe, effective, and of high quality, while respecting freedom of choice and cultural and philosophical diversity.

Established as an office within the Health Products and Food Branch of Health Canada in 1999.

Active regulation of Natural Health Products (NHPs) began in 2004 with the introduction of the Natural Health Products Regulations.

Works in conjunction with the Health Products and Foods Branch Inspectorate and the Marketed Health Products Directorate (MHPD) to administer the Natural Health Program of Health Canada.
Probiotic Natural Health Products (NHPs) in Canada

Evidence Needed for Safety & Claims

Foods | NHPs | Biologics

Food-NHP Interface | Health Risks & Benefits | NHP-Biologic Interface

US Dietary Supplements?
US Live Biotherapeutic Products?
Regulation of Natural Health Products in Canada

Natural Health Products (NHPs) are defined in and subject to the Natural Health Products Regulations. NHPs are considered a subset of drugs under the Food and Drugs Act.

Require pre-market assessment and licensing.

Must be supported by evidence of safety and efficacy under recommended conditions of use.

Must be manufactured under Good Manufacturing Practices (as defined in Part 3 of the NHP Regulations).
What is a Natural Health Product in Canada? (Medicinal Ingredients)

Depends on both the nature of the ingredients and on the context. Medicinal ingredients must be naturally occurring substances or synthetic duplicates of naturally occurring substances (Schedule 1 of NHP Regulations).

Medicinal ingredients must not be excluded from NHPs by other regulations (Schedule 2 of NHP Regulations).

Must not contain ingredients that would require individualized risk-benefit assessment or ongoing supervision for safe use (Schedule F of the Food and Drugs Regulations).
What is a Natural Health Product in Canada? (Context)

Context includes product formulation, health claims, and conditions of use.

No health claims which would require supervision of a healthcare practitioner for safe use. (Schedule A of the Food and Drugs Act).

No dosage forms that pierce the skin.

Must be manufactured, sold or represented for use in:

- The diagnosis, treatment, mitigation or prevention of a disease, disorder or abnormal physical state or its symptoms in humans
- Restoring or correcting organic functions in humans
- Modifying organic functions in humans, such as modifying those functions in a manner that maintains or promotes health
Submission of Evidence: Routes to Unique Product Licensing

**NHPD Labelling Standard Route:** Homeopathic Medicines and related products (e.g. Oligotherapy, Flower Essences) and less comprehensive Abbreviated Labelling Standards (e.g. lycopene, taurine): 20 completed, 15 published so far (more on the way) – not as complete as monographs but used to expedite review;

**Traditional Medicines Route:** history of 50+ years of traditional use within a cultural belief system or healing paradigm (e.g. TCM) for claim; safety requires traditional + scientific/clinical evidence;

**Non-Traditional Products Route:** requires the most applicant-provided evidence but allows great flexibility in formulation and claims;

- Full applications can provide evidence to go beyond monographed conditions of use, including exemption from certain generally applicable cautionary label statements where warranted;
- All PLAs can reference NHP monographs, Labelling Standards and other pre-cleared information from NHP Ingredients Database, e.g.: Fish Oils Monograph (St. John’s, NF, consultation) → 525 compendial NPNs, also used to support 261 non-compendial NPNs = 786 authorized products!
NHPD Monographs: The Route to Quick & Easy Licensing

Compendial Stream (NHPD’s Compendium of Monographs):

- Available in both English and French;
- More than 80% have been revised at least once since 2004;
- Fast licensing – 60 day disposition clause in NHPR;
- Minimal administrative/scientific burden, linked to e-PLA;
- Safety, efficacy, quality and all conditions of use of monographed ingredients (Single Ingredient Monographs) and multiple-ingredient product categories (Product Monographs) are pre-cleared.
NHPD Monograph Development Process Map

1A BPRA PLA Priority Recommendation

1B Monographs or LS from EMEA, WHO, TPD etc.

1C PAC or Stakeholder Recommendation

2 Potential Monograph and AbLS List

3 Unit Head assigns item for research

4 Data gathered from published literature

5 Monograph or AbLS draft preparation

6 Review by Unit Head

7 Review by Director or Manager

8 Review by PAC or other experts

9 Not suitable for monograph or AbLS due to lack of evidence for safety or claim

10 Publication in NHPID on web site

11 Periodic review and update

12 Industry and stakeholder input
NHPD Monograph Elements

Introduction;
NHPID Name;
Proper Name(s);
Common Name(s);
Source Material;
Route of Administration;
Dosage Form(s);
Use(s) or Purpose(s);
Dose(s) by subpopulation, claim and preparation;
Duration of Use;
Risk Information: cautions and warnings, contraindications, known adverse reactions;
Non-medicinal Ingredients;
Specifications: product-specific quality requirements;
References Cited;
References Reviewed;
Appendices, e.g. special directions for use; pharmacopoeial standards e.g. USP, BP, EP, etc.
NHPD Probiotics Monograph

Based on FAO/WHO 2006 Guidelines and targeted review of the scientific literature.
Allows 4 specific claims for 3 specific strains of live microorganism.
Allows limited generalized claims for combinations of strains that meet all additional requirements.
Strain-specific evidence regarding identity, safety and efficacy must be attested to and may be requested by NHPD at any time.
Label quantity must be present at expiry.
Stakeholder Feedback on the NHPD Probiotics Monograph

Why strain ABC and not XYZ?
Specifications not sufficiently detailed.
Why do cryoprotectants have to be declared as non-medicinal ingredients?
Why isn’t extrapolation to all strains supported?
Licensed Probiotic NHPs in Canada

As of January 31, 2011:

315 probiotic products licensed through compendial process
24 probiotic product licensed through non-compendial process
290 probiotic submissions in queue
Scientific Challenges with Probiotics

Lactic Acid Bacteria taxonomy.
Exclusion of transferrable antibiotic resistance.
Scientific basis for extrapolation from strain to species.
Validated biomarkers/surrogate endpoints for gut health/immunity.
Validated methods for quality assurance.
Resources

Food and Drugs Act (http://laws-lois.justice.gc.ca/PDF/Statute/F/F-27.pdf)
Food and Drug Regulations (http://laws-lois.justice.gc.ca/PDF/Regulation/C/C.R.C.,_c._870.pdf)
NHPD Ingredients Database (http://webprod.hc-sc.gc.ca/nhpid-bdipsn/)
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Assessment Officers of the Product Assessment Division, Bureau of Product Review and Assessment, NHPD
Thank You!