





# **USER GUIDE**

<Finished Product Specifications Form User Guide>



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Minister of Health



**Health Products and Food Branch**  
**User Guide**

<p>Our mission is to help the people of Canada maintain and improve their health.</p> <p style="text-align: right;"><i>Health Canada</i></p>	<p>HPFB's Mandate is to take an integrated approach to the management of the risks and benefits to health related to health products and food by:</p> <ul style="list-style-type: none"> <li>• Minimizing health risk factors to Canadians while maximizing the safety provided by the regulatory system for health products and food; and,</li> <li>• Promoting conditions that enable Canadians to make healthy choices and providing information so that they can make informed decisions about their health.</li> </ul> <p style="text-align: right;"><i>Health Products and Food Branch</i></p>
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## FOREWORD

User Guides are meant to provide assistance to industry and health care professionals on **how** to comply with governing statutes and regulations. User Guides also provide assistance to staff on how Health Canada mandates and objectives should be implemented in a manner that is fair, consistent and effective.

User Guides are administrative instruments not having force of law and, as such, allow for flexibility in approach. Alternate approaches to the principles and practices described in this document *may be* acceptable provided they are supported by adequate scientific justification. Alternate approaches should be discussed in advance with the relevant program area to avoid the possible finding that applicable statutory or regulatory requirements have not been met.

As a corollary to the above, it is equally important to note that Health Canada reserves the right to request information or material, or define conditions not specifically described in this guide, in order to allow the Department to adequately assess the safety, efficacy or quality of a therapeutic product. Health Canada is committed to ensuring that such requests are justifiable and that decisions are clearly documented.

This document should be read in conjunction with the accompanying notice and the relevant sections of other applicable guides or guidance documents.

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## 1 INTRODUCTION

### 1.1 Policy Objectives

This guide is intended to explain the new approach to submission of Finished Product Specifications for Product Licence Applications.

### 1.2 Scope and Application


This guide applies to the submission of all non-compendial pre-market submissions of Natural Health Products that fall under the NHP regulations. This document should be read in conjunction with the *Evidence for Quality of Finished Natural Health Products* guidance document.

## 2 GUIDANCE FOR IMPLEMENTATION

The NHPD has developed a new approach to the assessment of the evidence for quality of finished natural health products (NHPs) that will expedite the pre-market authorization process. This new quality assessment process is intended to ensure that specifications meet with acceptable standards. The following document consists of a Finished Product Specifications (FPS) template, and Tables 1, 2 and 3 which outline prescribed tolerance limits for each type of test required for NHPs. A list of NHPD recognized test methods is now also available via the Controlled Vocabulary search in the NHPD Ingredient Database.

By submitting the Finished Product Specifications information in this form, the applicant is meeting the requirements of section 5(i) of the *Natural Health Products Regulations*. The testing requirements listed in the template, the limits in Tables 1-3 and the list of recognized test methods are consistent with the current *Evidence for Quality of Finished Natural Health Products* guidance document, which can be referred to for more detailed guidance. The responsibility to maintain complete quality information, including full test records, remains in place, and documentation must be provided to Health Canada on request. Auditing of documentation may occur during post-market and site-licensing evaluations.

### 2.1 Completing the FPS form

Note: macros must be enabled in Microsoft Word in order to check the boxes on the form. If the boxes cannot be checked, from the Main Menu select 'View', select 'Toolbars', from the drop down list select 'Control Toolbox' and select the 'Exit Design Mode' icon .

#### Brand Name

The brand name must be indicated on the FPS and must match the brand name indicated on the Product Licence Application (PLA) form.

#### Sections A & B

Sections A and B are intended to provide descriptive information about the product. The type of dosage form must be specified in section A, and the types of ingredients contained in the product must be identified in section B. This information is required as it serves to assist both the applicant and the NHPD Assessment Officer in determining what evidence will be required to support the quality of the product. As an example, if a NHP contains both a plant and an isolate, then the applicant is able to attest that microbial contamination limits meet those that pertain to the plant material (the less stringent of the two). As another example, if the product type does not include plants, extracts, homeopathic medicines or traditional medicines, the Assessment Officer is immediately aware that pesticides testing may not be required.

### Section C

The list of medicinal ingredients and/or standardized constituents, their quantities, quantity tolerance limits and test method information, as well as identity testing is all indicated in section C. The quantity and potency (if applicable) of each medicinal ingredient must be included along with its tolerance limits. Three options are provided for quantification of the medicinal ingredient: quantification by input; a finished product assay by a method on the list of NHPD recognized test methods or an equivalent validated in house method; or assay by a test method recorded in section E of the form. Note that when an ingredient is not assayed at the finished product stage (i.e. addition is verified by GMP and in-process controls), a rationale is required to justify the absence of analytical testing. It should be clear whether testing of constituents (potency) for the purpose of standardization is done at the finished product or raw material stage (or both stages) and the test method used should be either from the list of NHPD recognized test methods or else specified in section E of the form. For identity testing, it must be indicated for each medicinal ingredient whether the test methods meet those set out in the List of NHPD Recognized Methods or an equivalent validated in house method, whether the tolerance limits meet the requirements laid out in Table 1, and whether testing occurs at the finished product or raw material stage.

Note: If additional rows are required at any time, move your cursor to the outside right of the table (beside the last row) and press enter; a new row should appear. Alternatively, you may attach separate sheets of the same form if necessary.

### Section D

Section D confirms that the product is tested in accordance with NHPD's *Evidence for Quality of Finished Natural Health Products* guidance document and is subdivided into three sections:

- D(1) relates to general parameters which apply to all NHPs;
- D(2) relates to ingredient-specific testing parameters for both medicinal and non-medicinal ingredients; and
- D(3) relates to performance standards for specific dosage forms.

The NHPD's prescribed limits for the parameters in subsections 1, 2 and 3 are laid out in Tables 1, 2 and 3, respectively (found in Appendix 2). For each applicable test parameter, it must be indicated whether the test methods meet those set out in the List of NHPD Recognized Methods or an equivalent validated in house method, whether the tolerance limits meet the requirements laid out in Tables 1, 2, and 3, and whether testing occurs at the finished product or raw material stage. This can be done by checking the appropriate boxes under each column, i.e. check the box marked "yes" if limits meet the requirements or "no" if they do not meet the requirements and provide the limits in Section F. If the product does not contain the specific ingredient, indicate so by checking the box under 'Product does not contain this ingredient'. If testing is not required (e.g. microbial testing in products containing >50% alcohol), indicate so by checking the box under 'N/A' and provide a rationale. With regards to the list of ingredient-specific parameters in section D(2), there is space at the end of the list to declare any additional specific tests performed that are not identified in section 2; note that the test methods and tolerance limits must be included.

\*Please note that the absence of a check does not equate to 'N/A'.

### Section E

When it is indicated that a test method used is not on the list of NHPD recognized test methods for a specific test parameter in sections C and D, then the test method used must be listed in section E, and a rationale must be provided briefly describing the test method and justifying the use of this method.

### Section F

When it is indicated that the tolerance limits for the test parameter do not meet the NHPD's prescribed limits for the parameters outlined in section D and the relevant tables, the alternative tolerance limits are to be listed in section F, and a rationale must be provided justifying the limits and the expected risk to the consumer which arises from not meeting NHPD limits.

### Section G

Rationales must be scientific, backed by appropriate data and sufficiently justify why the proposed testing will not result in a risk to the consumer. Applicants can refer to the guidance document *Evidence for Quality of Finished Natural Health Products* for more information on acceptable rationales. If a rationale is required by checking 'N/A' for any test parameter, it must be indicated in this section. Absence of a rationale will result in an incomplete FPS.

### Signature Block

Finally, the FPS is to be signed by a Quality Assurance signatory or designated official, confirming that all records relating to the evidence for quality of the NHP are in compliance with the FPS provided.

This new quality assessment process was developed as a parallel to the Natural Health Products Online Solution and reflects the quality process planned for the online system as part of the esubmission builder. The online version of the quality form attached to the e-submission will, however, be simpler than the paper-based quality form as certain portions of the form will not be filled out by the applicant.

For instance, the online system will automatically request only test parameters relevant to the specific product and its ingredients (e.g. PCB testing will only be requested for products containing marine oils). The finished product specification that is built through the e-submission process can be validated for completeness of the information prior to submission of the electronic documents.

## **2.2 Recognized Test Methods**

The NHPD has provided a list of recognized test methods. Each of these test methods is suitable for use for a particular product, either as published or modified for use for specific products, however no test methods are appropriate for all products. In selecting one of these test methods from the list for a test parameter you are indicating that you are using this test method or an equivalent validated in-house method for assay or other determination of the test parameter and the test method is suitable for use for your product or raw material. It is the responsibility of the applicant to determine which test methods are appropriate for the product submitted for licensing. This is not an extensive list of methods, and thus test methods for specific products may not be present on the list. Alternate test methods may be listed in Section F of the Finished Product Specifications form.

The list of NHPD recognized test methods is not a complete document; it is part of a dynamic and growing database. As such, if it is felt that a test method used for a given test parameter is widely used in industry but it is not contained in the list, then relevant feedback (including details such as test type, protocols, validation information, etc) should be forwarded to NHPD using the feedback form that is part of the Online Solution, to be considered for addition to the list of recognized methods.



APPENDIX 1: FINISHED PRODUCT SPECIFICATIONS FORM

## Finished Product Specifications

\* **INDICATES MANDATORY FIELDS**

**Primary Brand Name\***

Primary Brand Name

**A. Dosage Form\***

Capsule   
  Tablet   
  Granule   
  Liquid   
  Lotion   
  Extract   
  Tincture   
  Powder  
 Other (specify): \_\_\_\_\_

**B. Product Type(s)\*:** Select each category of medicinal ingredient present in the product.

<input type="checkbox"/> Plant, alga or fungus	<input type="checkbox"/> Non-human animal material	<input type="checkbox"/> Bacterium	<input type="checkbox"/> Homeopathic
<input type="checkbox"/> Extracts	<input type="checkbox"/> Isolates	<input type="checkbox"/> Enzymes	
<input type="checkbox"/> Vitamins	<input type="checkbox"/> Minerals	<input type="checkbox"/> Amino Acids	
<input type="checkbox"/> Essential fatty acids	<input type="checkbox"/> Synthetic Duplicates	<input type="checkbox"/> Probiotics	

**C. Required Test Parameters**  
 Provide tolerance limits for quantity of each medicinal ingredient and the potency for each standardized constituent. Check the box that reflects testing done for the quantity, potency and identity of each medicinal ingredient:

**Quantity\***  N/A as this product is homeopathic

Medicinal Ingredient	Target Quantity in units as per the label (i.e. 100%)	Tolerance limit (upper and lower limits in percent)	Assay is performed at the finished product stage for each medicinal ingredient: Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)		Quantified by Input, rationale provided in section G
			Yes	No	
1.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Medicinal Ingredient	Target Quantity in units as per the label (i.e. 100%)	Tolerance limit (upper and lower limits in percent)	Assay is performed at the finished product stage for each medicinal ingredient: Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)		Quantified by Input, rationale provided in section G
			Yes	No	
8.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. (for additional rows, attach separate sheets)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Potency (if applicable)** Note: does not apply to homeopathic potency (see Homeopathic Guidance Document)

Potency Constituent	Target Amount in units as per the label	Tolerance limit (upper and lower limits in percent)	If Assay is performed at the finished product stage for each potency constituent: Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)		If Raw Material Assay: Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)	
			Yes	No	Yes	No
1.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. (for additional rows, attach separate sheets)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Identity\***

Medicinal Ingredient	Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)		Tolerance limits meet those set out in Table 1 (if No, provide limits in section F)		Testing occurs at	
	Yes	No	Yes	No	Finished Product Stage	Raw Material Stage
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. (for additional rows, attach separate sheets)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**D. Attestation of Product Quality**

**1. General parameters:** Identify all test parameters with respect to general requirements and select 'yes' or 'no' for test methods and tolerance limits for each test parameter that is applicable, and indicate whether testing occurs at the finished product or raw material stage. If a test parameter is not applicable for the product select 'N/A' and provide a rationale in Section G.

The finished product meets the tolerance limits set out in Table 1, and test methods meet those set out in the List of NHPD Recognized Methods with respect to the following test parameters:

<b>Test Parameters</b>	<b>If test parameter is not applicable</b>	<b>If test parameter is applicable:</b>
------------------------	--	---

	N/A, Rationale provided in Section G	Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)		Tolerance limits meet those set out in Table 1 (if No, provide limits in section F)		Testing occurs at	
		Yes	No	Yes	No	Finished Product Stage	Raw Material Stage
Microbial contaminants*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy metals*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solvent residues *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stability *		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**2. Ingredient specific parameters:** Identify all test parameters with respect to ingredient-specific requirements and select 'yes' or 'no' for test methods and tolerance limits for each test parameter that is applicable, and indicate whether testing occurs at the finished product or raw material stage. If a test parameter is not applicable for the product select "product does not contain this ingredient" OR 'N/A' and provide a rationale in Section G.

The finished product meets the tolerance limits set out in Table 2, and test methods meet those set out in the List of NHPD Recognized Methods with respect to the following test parameters:

Test Parameters	If test parameter is not applicable		If test parameter is applicable:					
	Product does not contain this ingredient	N/A, Rationale provided in Section G	Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)		Tolerance limits meet those set out in Table 2 (if No, provide limits in section F)		Testing occurs at	
Please Note: Test parameters apply to medicinal and non-medicinal ingredients			Yes	No	Yes	No	Finished Product Stage	Raw Material Stage
			Pesticides *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(for products containing plant material, an alga, a bacterium, a fungus or a non-human animal material or an extract or isolate)								
Mycotoxin/Aflatoxin *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(for products containing peanuts, ginseng, blue-green algae, ingredients of fungal origin)								
Oxidative stability *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(for products containing unsaturated oils)								

Test Parameters  Please Note: Test parameters apply to medicinal and non-medicinal ingredients	If test parameter is not applicable		If test parameter is applicable:					
	Product does not contain this ingredient	N/A, Rationale provided in Section G	Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)		Tolerance limits meet those set out in Table 2 (if No, provide limits in section F)		Testing occurs at	
			Yes	No	Yes	No	Finished Product Stage	Raw Material Stage
PCBs * (for products containing fish and seal oil)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCDD/PCDFs * (for products containing fish and seal oil)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thiaminase activity * (for products containing horse tail)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antibiotic residues * (for products containing honey or royal jelly)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antibiotic resistance* (for products containing probiotics)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dicyandiamide, Dihydrotriazines, creatinine* (for products containing creatine monohydrate)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diethylene glycol and related compounds* (for products containing glycerin, unless glycerin is a used as a constituent of a capsule)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sterility of Nosodes (for homeopathic products; sterilization technique for nosodes in compliance with the sterility requirements in the HPUS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Impurities (must specify impurity):			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (must specify):			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (must specify):			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Test Parameters  Please Note: Test parameters apply to medicinal and non-medicinal ingredients	If test parameter is not applicable		If test parameter is applicable:					
	Product does not contain this ingredient	N/A, Rationale provided in Section G	Test methods meet those set out in the List of NHPD Recognized Methods (if No, provide test method in Section E)		Tolerance limits meet those set out in Table 2 (if No, provide limits in section F)		Testing occurs at	
Yes			No	Yes	No	Finished Product Stage	Raw Material Stage	
Other (must specify):  (for additional rows, attach separate sheet)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**3. Dosage form specific parameters:** Identify all test parameters with respect to dosage form-specific requirements and select 'yes' or 'no' for test methods and tolerance limits for each test parameter that is applicable. If a test parameter is not applicable for the product select 'N/A' and provide a rationale in Section G.

The finished product meets the tolerance limits set out in Table 3, and test methods meet those set out in the List of NHPD Recognized Methods with respect to the following test parameters:

Test Parameter	N/A, rationale provided in Section G	Test methods meet those set out in the List of NHPD Recognized Methods (if no, provide test method in Section E)		Tolerance limits meet those set out in Table 3 (if no, provide limits in section F)	
		Yes	No	Yes	No
Uniformity of dosage unit* (for discrete dosage form; e.g. capsule or tablet)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disintegration/dissolution testing* (for discrete dosage form)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antimicrobial effectiveness* (non-routine test for products containing preservatives)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (must specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (must specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E. Test Methods not Specified in the List of Recognized Test Methods**  
When test method for specific test parameters cannot meet those outlined in the List of NHPD Recognized Methods, provide the test

method used and a suitable scientific rationale justifying the use of this test method. For additional rows move cursor to the outside right of the table and press enter.

Test Parameter	Method	Rationale

**F. Tolerance limits outside of NHPD Limits**

When tolerance limits for specific test parameters cannot meet those outlined in Tables 1, 2 or 3, provide the applicable tolerance limits used and a suitable scientific rationale justifying the excessive limits including support for the safe use of the product in humans (e.g. solvent residue exceed ICH tolerance limits as this product is a tincture containing ethanol). For additional rows move cursor to the outside right of the table and press enter.

Test Parameter	Tolerance limits	Rationale

**G. Rationales:**

Include scientific rationales to justify quantification by input, absence of testing, test methods not specified in the list of recognized test methods and tolerance limits outside of the NHPD limits. For additional rows go to "Table" and select "Insert", "row below"

Test Parameter	Rationale

**Signature Block**

I, the undersigned, confirm that

- 1) The information provided in this finished product specification is accurate and complete;
- 2) Records (e.g. quality assurance signed specifications, master production document and records of testing conducted) are maintained to support the compliance of the natural health product to these specifications as per the Natural Health Products

Regulations;

- 3) These records will be available and provided upon request to Health Canada

Name of Quality Assurance Officer or other designated official (Print)	Signature	Date (yyyy/mm/dd)
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## APPENDIX 2: ACCEPTABLE TOLERANCE LIMITS FOR QUALITY TEST PARAMETERS

<b>Table 1:</b> General limits for the quality of finished natural health products.			
<b>Test Parameters</b>		<b>Product/Ingredient</b>	<b>Tolerance limits</b>
Physical Identity		For all products	Conforms to standard
Identity of Medicinal Ingredients		For all ingredients (raw material or finished product stage)	Conforms to reference material
Quantity		Most ingredients	80-120% of the label claim
		Enzymes	80%-150% of label claim
		Vitamins, amino acids, minerals	pharmacopoeial limits or, in their absence, 80 -120% of label claim
		Probiotics	80%-300% of label claim
		Lutein	90-130% of label claim
Potency (for standardized extracts)		Most constituents	80-120% of the label claim
		Enzymes	80%-150% of label claim
		Vitamins, amino acids, minerals	pharmacopoeial limits or, in their absence, 80 -120% of label claim
		Lutein	90-130% of label claim
		Zeaxanthin	90-260% of label claim
Purity – microbial	Total aerobic count (does not apply for probiotics)	Plants, plant material, algae, bacteria, fungus, non-human animal material Extracts and isolates Essential fatty acids	< 1 X 10 <sup>5</sup> CFU/g or ml
		Vitamins, amino acids, synthetic duplicates and minerals	< 3 X 10 <sup>3</sup> CFU/g or ml
		Probiotics and other bacteria	N/A
	Contaminating fungus	Plants, plant material, algae, bacteria, fungus, non-human animal material Extracts and isolates Essential fatty acids, extracts and isolates, essential fatty acids and probiotics	< 1 X 10 <sup>4</sup> CFU/g or ml
		Vitamins, amino acids, synthetic duplicates and minerals	< 3 X 10 <sup>2</sup> CFU/g or ml
		<i>E. coli</i>	Extracts, isolates,

		vitamins, amino acids, essential fatty acids, minerals and probiotics	1 g or ml)
		Plants, plant material, non-human animal, algae and bacteria	Absent (not detected in 1 g or ml) for all internal use except for teas, decoctions or topical dosage form: < 1 X 10 <sup>2</sup> CFU/g or ml
	<i>Salmonella</i> spp.	All products	Absent (not detected in 10 g or 10 ml)
	<i>S. aureus</i>	Vitamins, amino acids, synthetic duplicates, minerals, essential fatty acids, probiotics, extracts and isolates	Absent (not detected in 1 g or ml)
		Unprocessed material: plants,	< 1 X 10 <sup>2</sup> CFU/ g or ml for all internal use except for teas, decoctions or topical dosage forms: < 1 X 10 <sup>4</sup> CFU/g or ml
	<i>P. aeruginosa</i> (liquids with < 50% alcohol)	Plants, plant material, algae, bacteria, fungus, non-human animal material and probiotics	N/A
		Extracts, isolates, vitamins, minerals, amino acids, essential fatty acids, synthetic duplicates	Absent (not detected in 1 g or ml)
	<i>Enterobacter</i> spp.	probiotics and bacteria	< 1 X 10 <sup>2</sup> CFU/g or ml
Purity – chemical	Total Arsenic	All products (except topical)	< 0.14 µg/kg b.w./day
	Organic arsenic	<u>only</u> if total arsenic limit is exceeded	<20 µg/kg bw/day.
	Inorganic arsenic	<u>only</u> if total arsenic limit is exceeded	<0.03 µg/kg bw/day
	Cadmium	All products (except topical)	< 0.09 µg/kg b.w./day
	Lead	All products (except topical)	< 0.29 µg/kg b.w./day
	Total mercury	All products (except topical)	< 0.29 µg/kg b.w./day
	Total heavy metals	Topical products	<10 ppm (testing for each individual heavy metal not required)

	Solvent residues (extracts and isolates)	For extracts, isolates, synthetic duplicates	ICH Q3C or pharmacopoeial limits
Stability	Stability Note: enumeration testing required for probiotics and activity testing required for enzymes	For all products	Meets site requirements  Meets requirements in specifications at the end of shelf life.

**Table 2: Ingredient specific limits for the quality of finished natural health products.**

Ingredient	Test Parameter	Tolerance limit
Products containing plants, plant material, fungi, algae, cyanobacteria, non-human animal material or their extracts (and their isolates)	Pesticides	Pharmacopoeial or WHO limits
Ginseng, nuts, blue-green algae, ingredients of fungal origin and other suspected plants, plant material and extracts	Mycotoxins or aflatoxins	Aflatoxins < 20 µg/kg (ppb) of substance
Products containing extracts, isolates, synthetic duplicates	Related impurities -Product and/or process related impurities, <i>if applicable</i> (e.g., co-extracted substances, inactive isomers, degradation product, intermediate product, reagents, catalysts)	Conforms to pharmacopoeial limits
Fish oil, seal oil	PCDFs and PCDDs	PCDDs & PCDFs: As per the CRN Monograph*
	PCBs	PCBs: As per the CRN Monograph*
	Peroxide Value (PV)	max. 5 mEq/kg
	p-Anisidine Value (AV)	max. 20
	TOTOX Value	Max 26 (calculated as 2PV + AV)
Oils containing unsaturated fatty acids	Peroxide Value (PV)	Conforms to pharmacopoeial limits when available
Cyanobacterial materials	Cyanobacterial toxins	Limits based on available toxicity data
Royal jelly and honey	Antibiotic residues	absent
Horsetail ( <i>Equisetum arvense</i> L.)	Thiaminase activity (horsetail)	Free of thiaminase activity
When suspected	Radioactivity	When suspected
Glycerin (products)	Diethylene glycol and related	0.1% of any individual impurity,

\* Council for Responsible Nutrition's Monograph at: <http://www.crnusa.org/pdfs/O3FINALMONOGRAPHdoc.pdf>

containing glycerin, not including glycerin in capsules)	compounds	not more than 1.0% of total impurities
Products containing creatine monohydrate	Dicyandiamide	≤ 50 ppm
	Dihydrotriazines	Not detected (detection limit of ≤ 5 ppm)
	Creatinine	≤ 100 ppm
Other specific ingredient	Other (specify): _____	Provide specific limits (e.g. conforms to pharmacopoeia)
for microbially derived enzymes and probiotics	Antibiotic resistance	To be determined Contact NHPD for more information

**Table 3: Dosage form specific limits for the quality of finished natural health products.**

Product	Test Parameter	Tolerance limit	Comments
Discrete dosage forms	Uniformity of dosage unit	Conforms to pharmacopoeial limits	(e.g. capsule, tablet, lozenge)
Capsules and tablets	Disintegration or dissolution	uncoated tablet NMT 45 min	Dissolution profile to be provided for controlled-release products
		plain coated tablet NMT 60 min	
		Enteric coated: NLT 60 min in gastric fluid NMT 60 min in simulated intestinal fluid	Enteric coated tablets to be tested in accordance with the pharmacopoeia (USP or Ph.Eur.)
	Dissolution	Controlled release: Dissolution profile to be provided for controlled-release products	
Delayed release:		2 stage testing will be required	
Products containing preservatives	Antimicrobial Effectiveness	Meets pharmacopoeial requirements	(e.g. potassium sorbate, sodium benzoate)