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Australian Government

Department of Health and Ageing
Therapeutic Goods Administration

Draft Compositional Guideline for XXXX

Name of the ingredient

XXXX (AAN) (check the ARTG permitted ingredients list for the correct name and type of substance)

Definition of the ingredient

The substance should be defined as to its origin (eg, genus, species, part of the organism, geographical location of harvest) and method of manufacture (cultivated or wild, extracted, dried, distilled purified by ion-exchange chromatography etc). This must be the same as the process against which the safety/toxicology data was evaluated by the TGA.

Molecular formula (*if applicable*):

CAS Number (*if applicable*):

Table 1. Ingredient specific requirements

Test	Method reference	Acceptance criteria
Description *This should include all physical properties such as appearance, odour, colour, etc*	*Where there is no formal testing regime required e.g. appearance or smell, a description such as 'visual' or 'organoleptic' is satisfactory*	*Criteria should be such that an incorrectly labelled substance could be identified as non-compliant*

Test	Method reference	Acceptance criteria
Characteristics *Properties of the substance that ensure its quality. Pharmacopoeial tests and limits for comparable substances should be considered when determining what to include. Some examples include:* Loss on drying *Residue on ignition/ Sulfated ash (for inorganic material only; for organic material, see Table 2)* Solubility Melting Point pH of solution	*Refer to pharmacopoeial methods where possible (attach details of proprietary methods)*	*Amounts should be declared as a percentage, e.g. < 1 % w/w.* *Ranges should be stated rather than single values. Consideration should be given to the number of significant figures, e.g. pH 3.5 – 4.5 is preferable to pH 4 in line with pharmacopoeial practice*
Identification *The identification test must be able to unambiguously distinguish the substance from any other similar substance, and may include 'fingerprint' tests such as TLC or IR which must be compared to an authenticated reference material. More than one test may be appropriate. For pure substances, chromatographic retention time alone is generally considered inadequate as a method of identification.*	*List methods of identification. Refer to pharmacopoeial methods where possible (attach details of proprietary methods)*	*Complies, e.g. Matches spectrum of authenticated reference material*
Assay *Describe quantitative or specific tests that determine the presence and amount of a specific substance. More than one substance can be assayed*	*State and if necessary describe methods of assay or provide brief details.*	*Limits for assay(s) taking into account practical but reasonable biological, physical and chemical variation*
Notes		

Table 2. Incidental constituents

Where justified, certain tests for incidental constituents may be excluded based on the origin and processing of the substance, e.g. a dried leaf, otherwise unprocessed, may be exempted from residual solvent testing. Other incidentals, such as scheduled contaminants (e.g. bromides, ephedrine) or radioactivity should be included where appropriate.

Test	Method reference	Acceptance criteria
Solvent residues *Specifically address those solvents that are included in the default standard.* *Address any additional solvents that may be used in the production, preparation, manufacturing or formulation.*	*List methods of assay, E.g. BP 2011 (Appendix VIII L, Residual solvents; Ph Eur method 2.4.24)*	*Total limits of solvents* *Solvent specific limits*
Incidental metals and non-metals *Specifically address the metals in the current BP or other default standard (Ph Eur, USP) limit tests for heavy metals.* *Include any limits for specific metals or non-metals e.g. cadmium, arsenic, lead, mercury*	*List methods of assay e.g. BP 2011 (Appendix VIII C)*	*Total limit of heavy metals* *Metal specific limits*
Pesticide residues and environmental contaminants: (including agricultural and veterinary substances) *Specifically address the limits stipulated in the current BP (or Ph Eur, USP), and whether the product would comply with these limits. In addition, state any additional residue limits that may be relevant.*	*List methods of assay e.g. BP 2011 (appendix XI L, Pesticide residues; PH Eur method 2.8.13)*	*E.g. Complies with limits in BP 2011*

Test	Method reference	Acceptance criteria
Other organic or inorganic impurities or toxins *Include other substances that may be of safety or therapeutic significance.* *What specific substance are assayed? E.g. dioxins, PCBs, mycotoxins* *Give consideration to related substances such as by-products, co-extracted substances, inactive isomers and degradation products* *Ash/Residue on Ignition/Sulfated ash* *Peroxide value*	*List methods of assay e.g. BP, Ph Eur, USP*	*Total limit of impurities in substance* *Impurity specific limits* *Amounts should be declared as a percentage, e.g. < 1 % w/w.*
Microbiology	While substance manufacturers are encouraged to include limits for objectionable microorganisms, it is the product into which those substances are formulated that is subject to a legally binding set of criteria. The Therapeutic Goods Order No. 77 *'Microbiological Standards for Medicines'* mandates that any finished product which contains the ingredient, alone or in combination with other ingredients, must comply with the microbial acceptance criteria set by Clause 9 of the Order.	
Notes		

Key to abbreviations: - insert any additional from above

BP = British Pharmacopoeia

HPLC = high-pressure liquid chromatography;

IR = infrared spectroscopy.

Ph Eur = European Pharmacopoeia

TLC = Thin layer chromatography

USP = United States Pharmacopoeia