



GUIDANCE NOTES

ACTIVE PHARMACEUTICAL INGREDIENT (API) INFORMATION (PART II S) FOR QUEST3+ PRODUCT REGISTRATION APPLICATION



CENTRE OF PRODUCT AND COSMETIC EVALUATION
NATIONAL PHARMACEUTICAL REGULATORY AGENCY (NPRA)

Please read *Drug Registration Guidance Document (DRGD): Appendix 6 : Guideline on Regulatory Control of Active Pharmaceutical Ingredients (APIs)* and these notes carefully before completing QUEST3+ product registration application form **Part II Section S**. An incomplete application form or dossier (with major deficiencies) is likely to be rejected during submission.

A. New Product Registration Application

- 1) All Part II Section S information should be submitted through QUEST3+ (except for Closed part of Drug Master File (DMF) for DMF option). Please refer to '**Help Button**' in QUEST3+ for assistance during online submission.
- 2) All Part II Section S information in mandatory field should be filled up according to the original dossier.
- 3) Original document should be uploaded to QUEST3+ for all API information (S1 to S10).
- 4) Separate Part II Section S information (in the same product registration application form) should be submitted when:
 - i. A finished product contains more than one API
 - ii. An API is manufactured from more than one manufacturing site
 - iii. An API is manufactured using more than one synthesis route
- 5) Please select the **correct API manufacturer** (with the exact name & address) from QUEST3+ database and ascertain your selection. Changes to the name or address of an API manufacturer are NOT possible once a saved form is created.
- 6) There are three options for Part II Section S information submission. Requirements for each submission option are available in *Drug Registration Guidance Document (DRGD): Appendix 6: Guideline on Regulatory Control of Active Pharmaceutical Ingredients (APIs)*. A summary of these requirements is provided in [Appendix 1](#).
- 7) A change of submission option is NOT allowed once screening approval is obtained.
- 8) Change or addition of API manufacturer is not allowed once screening approval is obtained.
- 9) Please also refer to [Appendix 2](#) for *API Administrative Procedure*.

B. Product Registration Application Using Same Source of an Approved API

- 1) This section outlines the requirements when preparing submissions, whereby the new finished product is manufactured using an approved API of a registered product. Both new and registered product shall use the same API, which is manufactured by the same API Manufacturer, by the same API synthetic route. This new submission shall be made by the same Product Registration Holder (PRH) through the same Part II Section S submission option.
- 2) **Approved API** refers to an API (in a registered product) which is regulated and approved following the implementation of Directive on Regulatory Control of API in Malaysia dated 17 Mar 2011, thus previously reviewed and approved by API Section, Centre for Product Registration, NPRA.
- 3) The PRH should keep the content of their dossier updated with respect to the actual synthesis/manufacturing process. The quality control methods should be kept in line with the current regulatory and scientific requirements. Where there are changes affecting an approved API in a registered product which requires variation application, the variation application shall be made and approved for every affected registered product prior to submission of a new product registration containing an Approved API.
- 4) PRH are required to declare that the quality of the API, in respect of the methods of preparation and control, has been regularly updated by variation procedure to take account of technical and scientific progress. PRH should also declare that, no changes have been made to the API other than those approved by the NPRA.
- 5) In cases where some minor textual changes have been introduced, and not affecting the major content of the dossier, PRH shall be able to provide a summary of changes made to previously approved dossier compared to current dossier. NPRA will review the changes introduced and may consider to accept or reject the dossier as an Approved API.
- 6) Please refer to NPRA's website for template of '*Declaration Letter for An Approved API in New Product Registration Application*'.

C. Regulatory Control of API for Product Registered Before the Implementation of Directive on Regulatory Control of API in Malaysia

- 1) This section is applicable for registered products containing Scheduled Poison in ALL dosage forms with the expiration of the registration period starting 1 January 2020.
- 2) At the point of writing, NPRA has identified anti-infective APIs as the selected category for assessment purposes. This category was selected based on current public health needs and risk-based approach which may be extended to other categories from time to time.
- 3) The PRH shall prepare all required Part II S information. This information shall be uploaded to QUEST3+ between 12 to 15 months prior to expiry of product registration.
 - a. Submission by DMF option- complete DMF (both open & closed part) shall be submitted in electronic copy (preferably in compact disc) together with a Letter of Access and Cover Letter. This document shall reach NPRA before submission of Form RegA2. Open part information shall also be uploaded to QUEST3+.
 - b. Submission by ACTD or CEP option- all documents shall be uploaded to QUEST 3+.

- 4) Please refer to [Appendix 3](#) for *Administrative Procedure for Regulatory Control of Active Pharmaceutical Ingredient (API) In Registered Product Containing Anti Infective API*; and [Appendix 1](#) for *Active Pharmaceutical Ingredient (API) Submission Checklist For Product Registration*.
- 5) Once all required Part II S information are ready for updating, PRH shall fill and submit *Application Form for Section S Revision for Products (Anti-Infectives) Registered Before the Implementation of Directive on Regulatory Control of API (Form RegA2)*. Form RegA2 is an online form available on NPRA's website.
- 6) All submissions will be screened for eligibility based on product registration expiration date and category of API.
- 7) NPRA will enable "Product Editing" function in QUEST 3+ for the indicated product. PRH will be given strictly 30 calendar days to upload all required Part II S information. Failure to update complete Part II S information by the end of the given timeframe will affect product renewal status.
- 8) During assessment, additional information may be requested via email, if necessary.
- 9) For registered products not containing anti-infective APIs, part II S information shall be kept by the PRH. It is not necessary to upload to QUEST 3+.
- 10) For non-anti-infective APIs, NPRA reserves the right to request for Part II S documents for full assessment (if deemed necessary). If the outcome of the assessment is unsatisfactory or if there is any doubt in the submitted document, appropriate regulatory action may be taken against the relevant product and/or the status of the product registration will be reviewed for product recall, suspension or revoking of registration status.

D. Regulatory Control of Atypical APIs

- 1) Part D of this guidance note is focusing on the content of regulatory control of Atypical API in Malaysia and is applicable for product registration in Malaysia.
- 2) Atypical APIs are excipient, food additive or cosmetic ingredient used as an active ingredient in pharmaceutical products. These substances are known to have lower risk and widely used outside of the pharmaceutical industry, that have meet recognized quality standards, as atypical APIs for the purpose of this guidance.
- 3) A list of Atypical APIs is available in [Appendix 4](#). This list not meant to be exhaustive and will be reviewed by NPRA from time to time.
- 4) Regulatory requirement for Atypical APIs is outlined in [Appendix 5](#). Should a risk to health be identified, NPRA will take appropriate compliance and enforcement action proportional to the risk.
- 5) It is important to note that each lot or batch of the atypical API shall be, prior to its use in manufacturing process of the finished pharmaceutical products, be tested against and

comply with the specifications established by the finished product manufacturer for that atypical API.

- 6) Finished product manufacturer (and product registration holder) are responsible for ensuring products in domestic commerce are safe, suitable and of purported quality.

E. Good Manufacturing Practice Compliance Evidence for Manufacturers Involved

- 1) This section outlines the level evidence required to support that the manufacturing of API (including intermediate manufacturing and milling sites) are complying to an appropriate Good Manufacturing Practices (GMP) quality system.
- 2) The term **Main API Manufacturer** refers to manufacturer involved in final API manufacturing process and responsible for batch release. The GMP compliance evidence accepted for main API manufacturer are:
 - a) GMP Certificate or GMP Inspection Report issued by:
 - i. Pharmaceutical Inspection Co-Operation Scheme (PIC/S) Participating Authorities or;
 - ii. World Health Organization (WHO)or;
 - iii. Drug Regulatory Authority
- 3) Manufacturers involved in manufacturing of **API intermediate** should be able to provide GMP compliance evidence as below:
 - a) GMP Certificate or GMP Inspection Report issued by:
 - i. PIC/S Participating Authorities or;
 - ii. World Health Organization (WHO)or;
 - iii. Drug Regulatory Authority or;
 - b) Self-declaration from competent person of API Intermediate Manufacturer (refer template letter GMP_CP_V1) or;
 - c) Declaration from Qualified Person (QP) (for EU countries)
- 4) When an atypical API (e.g. excipient, food additive or cosmetic ingredient) is used as an active ingredient in pharmaceutical products, the GMP compliance evidence accepted are:
 - a) GMP Certificate or GMP Inspection Report issued by:
 - i. PIC/S Participating Authorities or;
 - ii. World Health Organization (WHO)or;
 - iii. Drug Regulatory Authority or;
 - b) Self-declaration from competent person from Finished Product (FPP) Manufacturer whereby the supplier of atypical API is an approved supplier according to the FPP manufacturer's quality management system (refer template Letter_AAAPV1).
- 5) NPRA reserves the right to determine the acceptability of any GMP compliance evidence.

**SUMMARY OF REQUIRED DOCUMENTS FOR
ACTIVE PHARMACEUTICAL INGREDIENT (API) INFORMATION IN PRODUCT REGISTRATION**

NO.	SECTIONS/ FIELDS	CONTENTS	MANDATORY INFORMATION (✓)			PRH (Please tick ✓)
			ACTD	DMF	CEP	
1.	Submission Option	i) Drug Master File (DMF) ii) Certificate of Suitability (CEP) iii) ASEAN Common Technical Dossier (ACTD) * Refer to DRGD Appendix 6 for description	✓	✓	✓	
2.	Certificate of Suitability	A copy of the most current CEP including all annexes			✓	
		CEP number			✓	
		Date of issue			✓	
		Date of expiry (By default: 5 years from date of issue)			✓	
		Written Statement i) Name of the finished product ii) PRH responsible for the finished product iii) Written assurance that no significant changes in the manufacturing methods or processing have taken place following the granting of the certificate or its last revision and iv) Declaration from the API Manufacturer that the PRH and the NPRA shall be notified of any future change in the API specifications or in the manufacturing process that will likely affect the product's quality or safety			✓	
3.	Quality Overall Summary (QOS)	i) Overall Summary ii) Table of Contents iii) Body of Data	✓	✓	✓	
4.	S1. General information					
	S1.1 Nomenclature	International non-proprietary names/ INN: Chemical names: Synonyms: CAS No: Chemical Abstracts Service	✓	✓	✓	
	S1.2 Structure formula	Structural formula (relative and absolute chemistry) Molecular formula Molecular weight Molecular weight (base)	✓	✓	✓	
	S1.3 General Properties	Physico-chemical properties: i) Colour, physical form (powder, amorphous, crystalline, liquid, etc) ii) Solubility: - Solubility in the <u>water</u> , acid, alkali, common solvent - Solubility (mg/ml) - over the physiological pH range (pH 1.2-6.8) in several buffered media - Solubility (mg/ml) - in 250mL water at pH 1.2, 4.5 and 6.8 performed at 37°C iii) Pka, pH, partition coefficient (log P), Melting point, hygroscopicity, isomerism, chirality and polymorphism	✓	✓	YES, If there are any physicochemical & relevant API properties - not controlled by the CEP, e.g. solubilities and polymorphs	
5	S2. Manufacture					
	S2.1 API Manufacturer(s)	Name and address of manufacturer that produced the API (manufacturer responsible for release of the final API). - Attach GMP certificate in S9 - Attach S2.1 Manufacturer in S10	✓	✓	✓	
	S2.1.1 Other API Manufacture(s) involved	Manufacturers involved in each production steps, including intermediate manufacturer, milling and quality control testing sites. * GMP Compliance evidence is required for all manufacturer involved in API manufacturing process, including intermediate manufacturing and milling sites;	✓	✓	✓	
	S2.1.2 Name of Synthesis Route	State the name of synthesis route. (If no specific name was assigned, please state as "Only One Route").	✓	✓	✓	
	S2.2 Description of Manufacturing Process and Process Controls	i) Detailed Description of the Synthesis (step & process) from starting materials until purification step. ii) Proposed starting material iii) Manufacturing scheme that indicates molecular formula; molecular weights; chemical structures of starting materials, intermediates and the API including	✓	✓		

		<p>stereochemistry; reagents, catalysts and solvents used in each step until purification step.</p> <p>iv) Catalyst & solvents used (ICH class & limit).</p> <p>v) Control strategy of solvents. (if skip testing, etc).</p> <p>vi) Quantities of materials used, operating conditions and yield ranges in the description of the process.</p> <p>vii) Recycling of filtrates/mother liquors (maximum holding time /maximum number of times the material may be recycled/Evidence / Data on the impurity levels).</p> <p>viii) Final Steps (eg. Purification procedure)</p> <p>ix) Commercial and Maximum batch size (batch range in kg)</p> <p>x) Alternatives steps (no changes in the impurity profile)</p> <p>xi) Re-processing; identified the process/step, method, frequency/limit of reprocess, same specification of the final API, no changes in the impurity profile, control of impurity levels, etc.</p> <p>xii) Reworking: equivalent quality as original process, impurity profile, etc</p> <p>xiii) Recovery of materials or solvents: step its introduced in the process, source, ratio (or range of mixtures) of fresh and recovered solvents, specifications (including justification of specification), impurity levels</p> <p>xiv) Blending of batches; each batch tested & comply to final API specification</p>				
	S.2.2.1 Manufacturing Process Flowchart	Manufacturing Process Flow that indicates molecular formula; molecular weights; chemical structures of starting materials, intermediates and the final API, including its stereochemistry; reagents, catalysts and solvents used in each step until purification step.	✓	✓		
	S2.3 Control of Materials	<p>i) Starting materials; Justification on selection of starting materials, Specification, Name & address of each supplier, CoA of starting material issued by each of suppliers, CoA of starting material issued by the API manufacturer (for each of suppliers), Preparation of starting materials (Brief description), characterisation.</p> <p>ii) All materials (solvent, catalyst or reagent) used during manufacturing process [Specification, function and control strategy].</p> <p>iii) Others. e.g. benzene contamination, Quality of water etc.</p>	✓	✓		
	S.2.3.1a TSE Risk Free Statement	<p>i) Declaration; starting materials, reagents and all materials used to manufacture the API are of animal or human origin.</p> <p>ii) Document to demonstrate compliance on TSE/BSE requirement</p>	✓	✓	✓	
	S2.4 Controls of Critical Steps and Intermediates	<p>Controls of Critical Steps</p> <p>- critical steps & process control including tests and acceptance criteria (with justification including experimental data).</p> <p>Controls of Intermediates</p> <p>- List of Intermediates, specification, analytical procedure</p>	✓	✓		
	S2.5 Process validation and/or evaluation	Applicable to sterile API only	✓	✓	YES, If CEP did not specify sterile API	
	S2.6 Manufacturing Process Development	<p>i) Description and discussion of significant changes made to the manufacturing process and/or manufacturing site of the API used in producing non-clinical, clinical, scale-up, pilot and if available, production scale batches.</p> <p>ii) The development history of the manufacturing process as described in S 2.2</p> <p>iii) To state the date of changes.</p>	✓	✓		
6	S3. Characterisation and Impurities					
	S3.1 Elucidation of Structure and other Characteristics	<p>i) Pharmacopoeia API:</p> <p>- Comparison of spectral data between pharmacopoeia reference standard & API (If comparison is not available, assess as per non-pharmacopoeia API).</p> <p>ii) Non pharmacopoeia API:</p> <p>- Elemental analysis</p> <p>- Infrared Spectrophotometry (IR)</p>	✓	✓	✓	

		<ul style="list-style-type: none"> - Ultraviolet absorption spectrum (UV) - Mass Spectrometry - Nuclear Magnetic Resonance Spectrometry (NMR) ; ¹H-NMR, ¹³C-NMR - X-ray Diffraction - Differential Scanning Calorimetry (DSC) - Thermogravimetric analysis (TGA) - Others <p>iii) Polymorphism</p> <ul style="list-style-type: none"> - Description & characteristics of various polymorphic forms - Potential for formation of the polymorphic forms - Stability of the polymorphic forms - Evidence to prove the commercial scale process consistently produce desired polymorphic forms <p>iv) Particle size distribution</p> <p>v) Isomerism</p>				
	S3.2 Impurities	<p>Organic Impurities, Inorganic Impurities, Residual solvents, Genotoxic Impurities</p> <ul style="list-style-type: none"> - Possible carryover of impurities (during the synthesis and from the preparation of starting material and intermediates to the final API). - If possible potential impurities that may arise from the starting materials, route of synthesis and possible degradation products should be listed with name, structure, origin, LOD and LOQ and ranges of results in at least 3 consecutive batches as well as the proposed limits taking into account the requirements of ICH guideline. - Any impurity greater than qualification threshold should be qualified and a rationale for establishing impurity limit/ acceptance criteria that includes safety considerations (eg. data from toxicology study, or batch analysis data of batches used in clinical trial with observed impurities content are equal or more than limit in the specification) should be provided. - discussion on impurities that stated in another pharmacopeia (if applicable) 	✓	✓		
7	S4. Control of Drug Substance/ API					
	S.4.1 Specification	Table of Specification of API from both API Manufacturer & Product Manufacturer (with Specification version no. & effective date).	✓	✓	✓	
	S4.2 Analytical Procedures	<p>i) The analytical procedures used for testing of API should be provided in sufficient details to enable reproducible testing by another laboratory</p> <p>ii) Compendial methods or appropriate information from the manufacturer</p>	✓	✓		
	S4.3 Validation of Analytical Procedures	<p>i) Analytical validation information, including experimental data for the analytical procedures used for testing the API</p> <p>ii) Typical validation characteristics to be considered:</p> <ul style="list-style-type: none"> - Selectivity - Precision(repeatability, intermediate precision and reproducibility) - Accuracy - Linearity - Range - Limit of Quantitation - Limit of detection - Robustness - System suitability <p>iii) Non-compendial methods</p>	✓	✓		
	S4.4 Batch Analysis	<p>i) Batch analysis results of at least 3 batches</p> <p>ii) Information in table form e.g.: batch number, batch size, manufacturing date, manufacturing site and batch use (validation, stability, commercial etc.)</p>	✓	✓	✓	
	S.4.4.1 Certificates of Analysis(COA)	<p>i) From API Manufacturer (2 Batches)</p> <p>ii) From Product Manufacturer (2 Batches)</p>	✓	✓	✓	
	S.4.5 Justification of Specification	i) Discussion on inclusion/ omission of tests and analytical procedures	✓	✓	✓ (For non-	

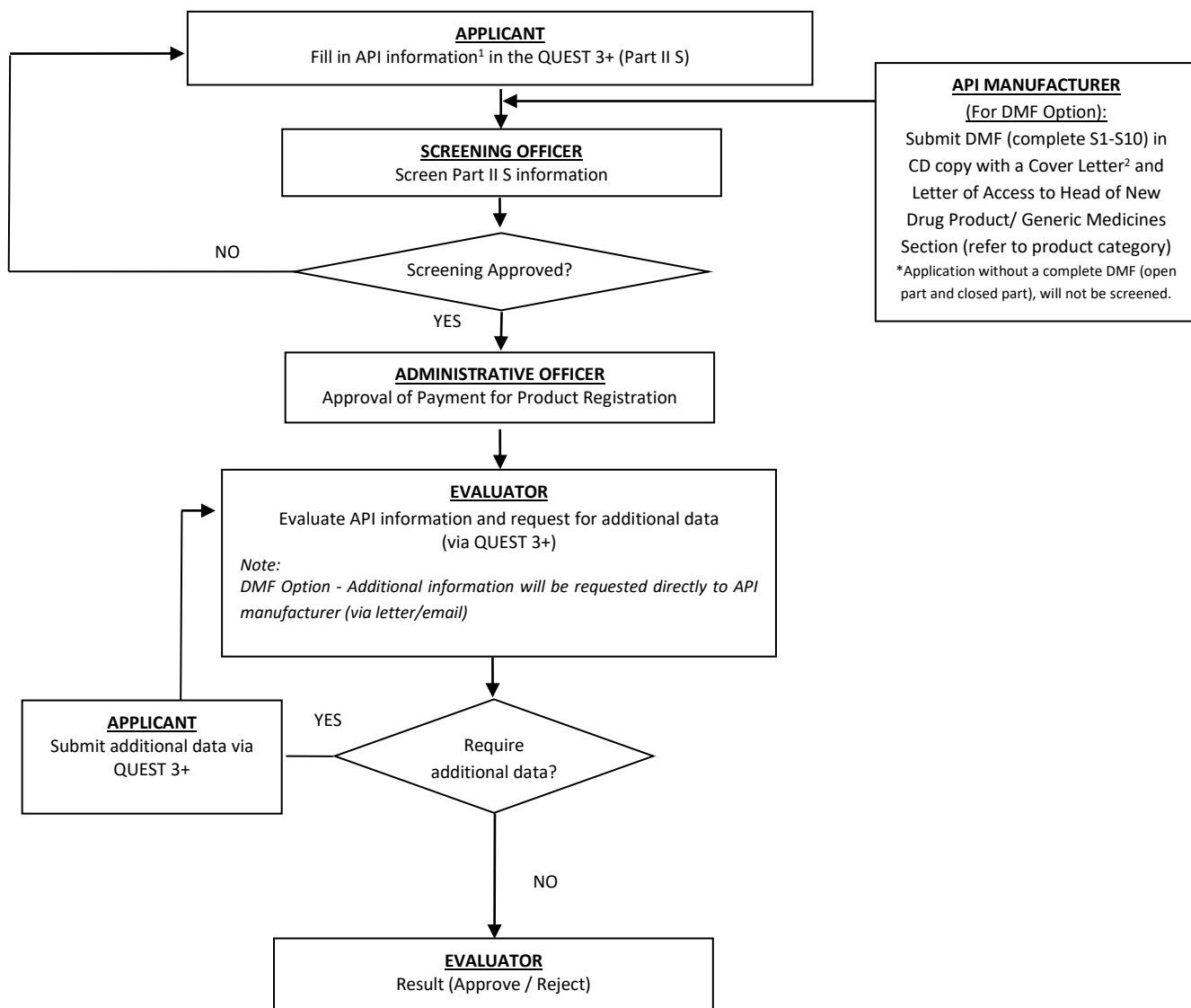
		ii) Justification on range of acceptance criteria set for in-house tests			monograph tests)	
8	S5. Reference Standards or Materials					
	From API Manufacturer	i) Clearly stating: <ul style="list-style-type: none"> - Official reference standard used, with batch number - Primary reference standard used, with batch number - Working standard used, with batch number ii) For each Reference Standard should provide: <ul style="list-style-type: none"> - CoA of Reference Standard - IR spectra of reference standard - Overlaid IR spectra comparing the primary & working standards. - Reference standards available for impurities/related substances 	✓	✓	✓	
	From Product Manufacturer	i) Clearly stating: <ul style="list-style-type: none"> - Official reference standard used, with batch number - Primary reference standard used, with batch number - Working standard used, with batch number ii) For each Reference Standard should provide: <ul style="list-style-type: none"> - CoA of Reference Standard - IR spectra of reference standard - Overlaid IR spectra comparing the primary & working standards. - Reference standards available for impurities/related substances 	✓	✓	✓	
9	S6.Container Closure System					
	S.6 Container Closure System (CCS)	i) Description: primary packaging, secondary packaging, specifications,	✓	✓	✓	
		ii) IR spectra of primary packaging material, CoA, Functional secondary packaging components (If applicable),	✓	✓	YES, - If CEP did not specify a CCS or - CCS (in S.6) is different from CCS (in CEP)	
		iii) Suitability: Moisture and light, compatibility (e.g: Sorption or leeching)				
10	S7. Stability					
	Re-test Period or shelf life	Select (months) the proposed retest period based on stability study conclusion.	✓	✓	✓	
	Storage Condition	State API storage condition (including special label, if needed) based on study condition of stability data provided (eg: "Store below 25 °C, protect from light").	✓	✓	✓	
	Stability Data	i) Stress Testing Study <ul style="list-style-type: none"> - API batch details (eg: moisture, light, acidic, basic, oxidative and thermal stress conditions). 	✓	✓		
		ii) Long Term Stability Data <ul style="list-style-type: none"> - Minimum of 3 batches, (with recent results) - Batch information (manufacturing date, site, batch size, - Temperature/RH/Packaging iii) Accelerated Stability Data <ul style="list-style-type: none"> - Minimum of 3 batches, (with 6 months data) - Batch information (manufacturing date, site, batch size) - Temperature/RH/Packaging iv) Post-approval Stability Protocol and Stability Commitment	✓	✓	YES, If CEP did not specify a retest period with specific storage condition (CCS and specific temperature). or - CCS (in S.6 & S7) is different from CCS (in CEP)	
11	S8.Drug Master File(DMF)					
	General Note	i) The API manufacturer may submit the DMF (both open part & closed part) via electronic copy (CD) with a Cover Letter* & Letter of Access directly to **Head of New Drug Product/ **Head of Generic Medicine Section*, Centre of Product and Cosmetic Evaluation, NPRA to maintain confidentiality of the content. ii) The DMF should reach NPRA at the point of screening submission. Failure to do so may result in submission rejection. * Please refer to template of Cover Letter available on NPRA website ** refer to product category				

	DMF Version No.	Current DMF version number with effective date, &		✓		
	S.8.1 Letter of Access	The letter of Access authorizes NPRA to refer to the DMF, in support of the application for a finished product. Thus, the Letter of Access must state the following: <ul style="list-style-type: none"> - The name of the finished product (product name, dosage form and product strength to be registered); - The local applicant responsible for product registration; and - A declaration that the local applicant and NPRA shall be notified shall be notified of any changes in the API specification or in the manufacturing process that will likely affect the product's quality or safety. 		✓		
	S8.2 Name and complete address (including phone/fax no.) of DMF holder	S.8.2.1 Name of DMF Holder S.8.2.2 Address of DMF Holder S.8.2.3 Phone No. of DMF Holder S.8.2.4 Email address of Contact Person-DMF Holder		✓		
12	S9. Certificate of Good Manufacturing Practice (GMP) for API Manufacturer					
	S9. GMP Certificate	S.9. Attach a valid copy of GMP Certificate S.9.2 GMP Issuing Body S.9.3 Date of Issue of Certificate of GMP S.9.4 Date of Expiry of Certificate of GMP	✓	✓		
13	S10. Other Supporting Document					
	S10. Other Supporting Document	<ul style="list-style-type: none"> - Provide attachment for S2.1 Manufacturer in S10. - Official compendial monograph (if available) - Other supporting documents* 	✓	✓	✓	
	Additional documents for Approved (API)	Declaration Letter from PRH (To state the changes if any) <i>(refer template letter)</i>	✓	✓	✓	
		Declaration Letter from API Manufacturer <i>(refer template letter)</i>	✓	✓		
		List of Additional Data <ul style="list-style-type: none"> - Provide all the additional data which has been requested during previous submission (approved API) 	✓	✓	✓	
		List of Approved Variation Application <ul style="list-style-type: none"> - Provide list of all variation application which was approved 	✓	✓	✓	
		Summary of other changes Table of comparison (Approved API & New submission)	✓	✓	✓	

* Additional information may be requested if deemed necessary

**API ADMINISTRATIVE PROCEDURE FOR NEW PRODUCT APPLICATION FOR NCE & GENERIC
(CONTAINING SCHEDULED POISONS: ALL DOSAGE FORMS)**

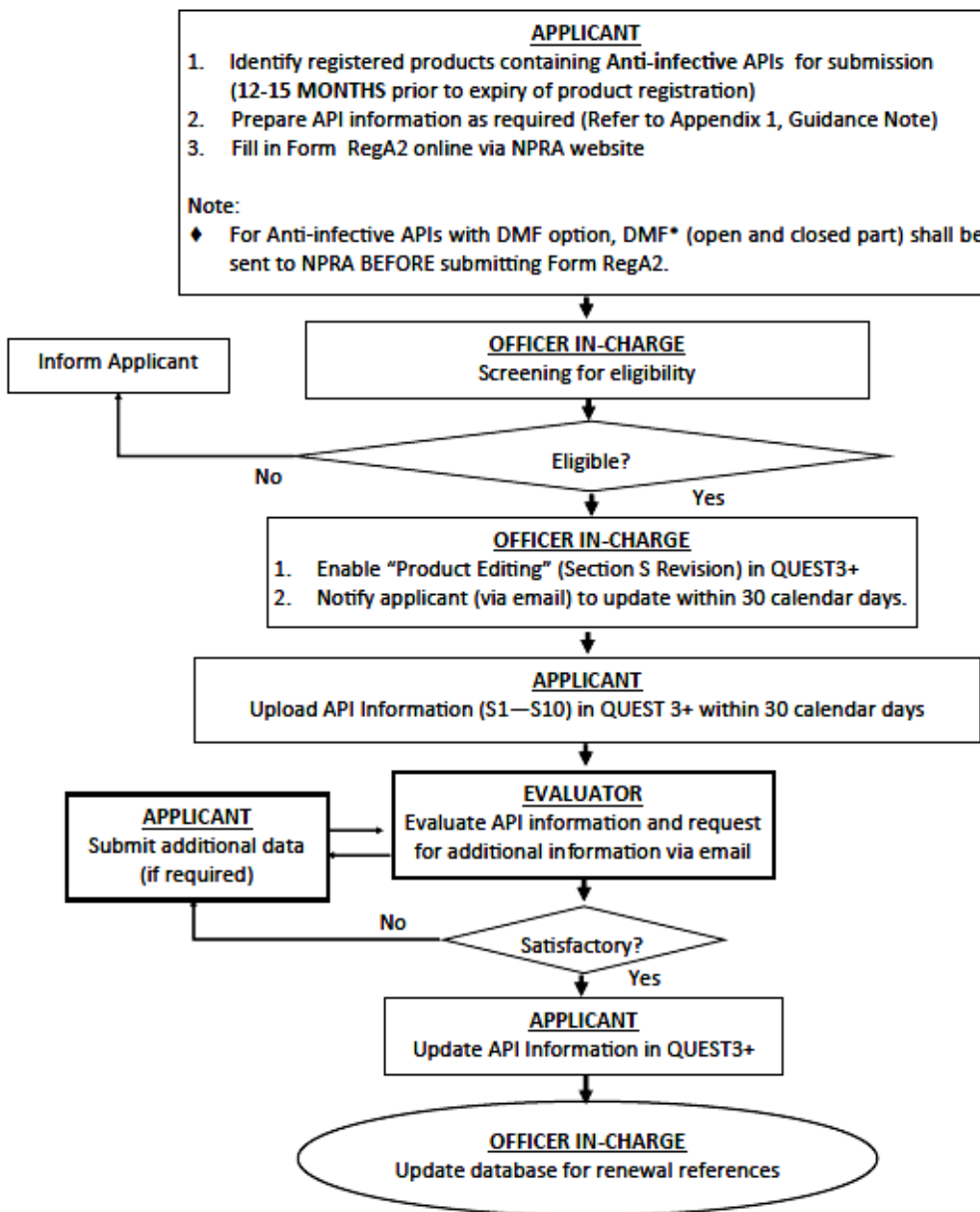
[Effective 2 Dec 2019]



Note:

1. Please Refer to Appendix 6: Guideline on Regulatory Control of API, from website www.npra.moh.gov.my (Guidelines Central→Active Pharmaceutical Ingredients (API))
2. Template of Cover Letter is available on NPRA website

ADMINISTRATIVE PROCEDURE FOR REGULATORY CONTROL OF ACTIVE PHARMACEUTICAL INGREDIENT (API) IN REGISTERED PRODUCT CONTAINING ANTI INFECTIVE API



Footnote:

1. *CD copy of DMF (open and closed part) with a Letter of Access and Cover Letter should be sent to: *Head of New Drug Product Section/ *Head of Generic Medicines Section (*refer to product category)
2. For registered products not containing anti-infective APIs, part II S information shall be kept by the PRH. It is not necessary to upload to Quest 3+ system.

LIST OF ATYPICAL ACTIVE PHARMACEUTICAL INGREDIENT (API)

Examples of Atypical API:

No.	Substance Name
1	Aluminum Hydroxide
2	Ammonium Chloride
3	Ascorbic Acid
4	Calcium carbonate
5	Calcium chloride
6	Glucose / Dextrose
7	Glycerol / Glycerin
8	Glycine
9	L-Alanine
10	L-Alanyl-L-Glutamine
11	L-Arginine
12	L-Aspartic Acid
13	L-Cysteine
14	L-Glutamic Acid
15	L-Glutathione
16	L-Histidine
17	L-Isoleucine
18	L-Leucine
19	L-Lysine Acetate
20	L-Methionine
21	L-Phenylalanine
22	L-Proline
23	L-Serine
24	L-Threonine
25	L-Tyrosine
26	L-Valine
27	Magnesium Carbonate
28	Magnesium Chloride
29	Magnesium Hydroxide
30	Magnesium Oxide
31	Olive Oil
32	Potassium chloride
33	Potassium phosphate
34	Sodium Acetate
35	Sodium Bicarbonate
36	Sodium Chloride
37	Sodium Glycerophosphate
38	Sodium Hydroxide
39	Sodium Phosphate
40	Soybean Oil
41	Zinc Acetate
42	Zinc Carbonate
43	Zinc Chloride
44	Zinc Citrate
45	Zinc Gluconate
46	Zinc Oxide
46	Zinc Sulfate

Note: This list is not meant to be exhaustive and will be reviewed from time to time.

**SUMMARY OF REQUIRED DOCUMENTS FOR
ATYPICAL ACTIVE PHARMACEUTICAL INGREDIENT (API) INFORMATION**

Section S / Field		Mandatory (✓)	Remarks
S1.1	Nomenclature	✓	
S1.2	Structure formula	✓	
S1.3	General Properties	✓	
S2.1	API Manufacturer(s)	✓	
S2.1.1	Other API Manufacture(s) involved	✓ (if any)	
S2.1.2	Name of Synthesis Route	✓ (if any)	
S2.2	Description of Manufacturing Process and Process Controls	✓ (Brief description)	Brief description for: - Manufacturing process - Materials
S.2.2.1	Manufacturing Process Flowchart	✓	
S2.3	Control of Materials	Non-Mandatory	Should statement 'refer to restricted part' is given, information will be requested
S.2.3.1a	TSE Risk Free Statement	✓	
S2.4	Controls of Critical Steps and Intermediates	Non-Mandatory	
S2.5	Process validation and/or evaluation	Non-Mandatory	
S2.6	Manufacturing Process Development	Non-Mandatory	
S3.1	Elucidation of Structure and other Characteristics	Non-Mandatory	
S3.2	Impurities	Non-Mandatory	
S.4.1	API Specification from: i) API Manufacturer and ii) Finished Product Manufacturer	✓	
S4.2	Analytical Procedures	Non-Mandatory	
S4.3	Validation of Analytical Procedures	Non-Mandatory	
S4.4	Batch Analysis	Non-Mandatory	
S.4.4.1	Certificates of Analysis (COA) (2 batches each) from: i) API Manufacturer and ii) Finished Product Manufacturer	✓	
S.4.5	Justification of Specification from: i) API Manufacturer and ii) Finished Product Manufacturer	✓	
S5	Reference Standards or Materials from: i) API Manufacturer and ii) Finished Product Manufacturer	✓	If not available, please provide justification
S.6	Container Closure System (CCS)	✓	Description only
S7	Stability	Non-Mandatory	
S9	GMP Certificate	GMP Certificate <u>Or</u> Declaration on Quality Management System by Competent Person	Refer to template <i>Declaration on Quality of AAPI_V1</i> provided on NPRA Website
S10	Other information	✓	Additional information (including <u>non-mandatory information</u>) may be requested if deemed necessary