CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

204736Orig1s000

CHEMISTRY REVIEW(S)

Memorandum DEPARTMENT OF HEALTH AND HUMAN SERVICES

PUBLIC HEALTH SERVICE

FOOD AND DRUG ADMINISTRATION

CENTER FOR DRUG EVALUATION AND RESEARCH

Date: March 21, 2013

From: Yichun Sun, Ph.D.

Review Chemist, ONDQA

Division of New Drug Quality Assessment II

ONDQA

Through: Moo-Jhong Rhee, Ph.D.

Chief, Branch IV

Division of New Drug Quality Assessment II

ONDQA

To: CMC Review #1 of NDA 204736

Subject: Final Recommendation

At the time when the CMC review #1 was written, resolution of issues on **Labels and Labeling** was pending.

Evaluation of Label/Labeling

On March 13, 2013, the NDA applicant submitted an amendment providing the finalized mock up container labels. Additionally, the applicant also agreed to all the CMC changes made to the package insert. All the labels/labeling issues are now **satisfactorily resolved.** The CMC sections of the final package insert, and mock up container labels are attached (**Attachment - 1**).

Recommendation:

All pending issues on Label/Labeling are now satisfactorily resolved, and therefore, from the ONDQA's perspective, this NDA is recommended for **APPROVAL** with an expiration dating period of 24 months.

Reference ID: 3280346

Attachment - 1 (CMC Sections of the Finalized Labeling and Labels)

A. Labeling & Package Insert

- 1. Package Insert
- (a) "Highlights" Section

AcipHex Sprinkle (rabeprazole sodium) Delayed-Release Capsules, for oral use Initial U.S. Approval: 1999

DOSAGE FORMS AND STRENGTHS

Delayed-Release Capsules: 5 and 10 mg

Evaluation:

Item	Comments on the Information				
	Provided in NDA				
Drug name (201.57(a)(2))					
Proprietary name and established name	The proprietary name and established name are correctly described. The drug title is: ACIPHEX Sprinkle				
	(rabeprazole sodium) Delayed-				
	Release Capsules.				
	Satisfactory				
Dosage form, route of administration	The dosage form is Delayed-Release				
	Capsules. The administration route is oral.				
	Satisfactory				
Controlled drug substance symbol (if applicable)	N/A				
Dosage Forms and Strengths	The dosage form is Delayed-Release				
(201.57(a)(8))	Capsules. The strengths are 5 and 10				
	mg.				
	Satisfactory				
Whether the drug product is scored	N/A				

This section is satisfactory.

(b) "Full Prescribing Information" Section

#3. Dosage Form and Strength

ACIPHEX Sprinkle Delayed-Release Capsules are provided in strengths of 5 and 10 mg. The 5 mg strength is a transparent blue and opaque white No. 2 capsule. The cap of the capsule is imprinted with "↑" and the body is imprinted with "ACX 5mg". The 10 mg strength is a transparent yellow and opaque white No. 2 capsule. The cap of the capsule is imprinted with "↑" and the body is imprinted with "ACX 10mg".

Evaluation:

Item	Comments on the Information Provided in NDA
Available dosage forms and strengths: in metric system	The dosage form is Delayed-Release Capsules. The strengths of the capsules available are 5 mg and 10 mg. Satisfactory
Active moiety expression of strength with equivalence statement (if applicable)	N/A
A description of the identifying characteristics of the dosage forms, including shape, color, coating, scoring, and imprinting, when applicable.	The 5 mg strength is a transparent blue and opaque white No. 2 capsule. The cap of the capsule is imprinted with "↑" and the body is imprinted with "ACX5 mg". The 10 mg strength is a transparent yellow and opaque white No. 2 capsule. The cap of the capsule is imprinted with "↑" and the body is imprinted with "ACX10 mg". Satisfactory
Other	NA

This section is satisfactory.

#11. Description

The active ingredient in ACIPHEX (rabeprazole sodium) Delayed-Release Tablets and in ACIPHEX Sprinkle (rabeprazole sodium) Delayed-Release Capsules is rabeprazole sodium, which is a proton pump inhibitor. It is a substituted benzimidazole known chemically as 2-[[[4-(3-methoxypropoxy)-3-methyl-2-pyridinyl]-methyl]sulfinyl]-1H-benzimidazole sodium salt. It has an empirical formula of C₁₈H₂₀N₃NaO₃S and a molecular weight of 381.42. Rabeprazole sodium is a white to slightly yellowish-white solid. It is very soluble in water and methanol, freely soluble in ethanol, chloroform and ethyl acetate and insoluble in ether and n-hexane. The stability of rabeprazole sodium is a function of pH; it is rapidly degraded in acid media, and is more stable under alkaline conditions. The structural figure is:

ACIPHEX Sprinkle is available for oral administration as 5 mg and 10 mg rabeprazole sodium Delayed-Release Capsules containing enteric coated granules.

ACIPHEX Sprinkle Delayed-Release Capsules contain granules of rabeprazole sodium in a hard hypromellose capsule. Inactive ingredients are colloidal silicon dioxide, diacetylated monoglycerides, ethylcellulose, hydroxypropyl cellulose, hypromellose phthalate, magnesium oxide, magnesium stearate, mannitol, talc, titanium dioxide, carrageenan, potassium chloride, FD&C Blue No. 2 Aluminum Lake (in the 5 mg capsule), FD&C Yellow, No. 6 (in the 10 mg capsule), and gray printing ink.

Evaluation:

Item	Comments on the Information
	Provided in NDA
Proprietary name and established name	The proprietary name and established
	name are correctly described.
	Satisfactory
Dosage form and route of administration	The dosage form is Delayed-Release
	Capsules. The administration route is:
	oral.
	Satisfactory
Active moiety expression of strength with	N/A
equivalence statement (if applicable)	
Inactive ingredient information	All inactive ingredients are listed as
(quantitative, if injectables	follows: colloidal silicon dioxide,
21CFR201.100(b)(5)(iii)).	diacetylated monoglycerides,
	ethylcellulose, hydroxypropyl cellulose,
	hypromellose phthalate, magnesium
	oxide, magnesium stearate, mannitol,
	tale, titanium dioxide, carrageenan,
	potassium chloride, FD&C Blue No.2
	Aluminum Lake (in the 5 mg capsule),
	FD&C Yellow, No. 6 (in the 10 mg
	capsule), and gray printing ink.
0.4 (0.1) (1.7)	Satisfactory
Statement of being sterile (if applicable)	N/A
Pharmacological/ therapeutic class	The pharmacological class, proton
	pump inhibitor, is provided.
Classical and the desired states of the stat	Satisfactory
Chemical name, structural formula,	Chemical name, structural formula and
molecular weight	the molecular weight are correctly
	described in this section.
If and it and it and it is a second of the s	Satisfactory
If radioactive, statement of important nuclear characteristics.	N/A
	None
Other important chemical or physical	None
properties (such as pKa or pH)	

The "Description" section is satisfactory.

#16. How Supplied/Storage and Handling

ACIPHEX Sprinkle (5 mg) is supplied as transparent blue and opaque white capsules containing enteric coated granules. Identification and strength (ACX 5 mg) are imprinted on the body of the capsule. An arrow (↑) imprint on the capsule cap indicates direction for opening a capsule.

Bottles of 30 (NDC 62856-240-30)

ACIPHEX Sprinkle (10 mg) is supplied as transparent yellow and opaque white capsules containing enteric coated granules. Identification and strength (ACX 10 mg) are imprinted on the body of the capsule. An arrow (↑) imprint on the capsule cap indicates direction for opening a capsule.

Bottles of 30 (NDC 62856-241-30)

Store at 25°C (77°F); excursions permitted to 15-30°C (59-86°F) [see USP Controlled Room Temperature]. Protect from moisture.

Evaluation:

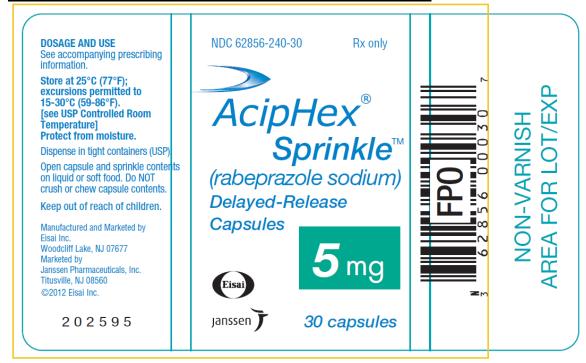
Item	Comments on the Information Provided in NDA				
Strength of dosage form	Strengths are correctly described as 5 mg				
	and 10 mg.				
	Satisfactory				
Available units (e.g., bottles of 100 tablets)	Available units are correctly described as				
	bottles of 30 for both strengths.				
	Satisfactory				
Identification of dosage forms, e.g., shape,	ACIPHEX Sprinkle (5 mg) is supplied as				
color, coating, scoring, imprinting, NDC	transparent blue and opaque white				
number	capsules containing enteric coated				
	granules. Identification and strength				
	(ACX 5mg) are imprinted on the body of				
	the capsule. An arrow (†) imprint on the				
	capsule cap indicates direction for				
	opening a capsule.				
	NDC 62856-240-30				
	ACIPHEX Sprinkle (10 mg) is supplied				
	as transparent yellow and opaque white				
	capsules containing enteric coated				
	granules. Identification and strength				
	(ACX 10mg) are imprinted on the body				
	of the capsule. An arrow (↑) imprint on				
	the capsule cap indicates direction for				
	opening a capsule.				
	NDC 62856-241-30				
	Satisfactory				
Special handling (e.g., protect from light)	Protect from moisture.				
	Satisfactory				
Storage conditions	Storage condition is described as "Store				
	at 25°C (77°F); excursions permitted to				
	15-30°C (59-86°F) [See USP Controlled				
	Room Temperature]."				
	Satisfactory				
Manufacturer/distributor name (21 CFR	Stated at the end of the labeling as:				
201.1(h)(5))	Distributed by Eisai Inc. and marketed by				

	Janssen Pharmaceuticals Inc. Satisfactory
Other	NA

The "How Supplied/Storage and Handling" section is satisfactory.

Immediate container label

Bottle Label for 5 mg Delayed-Release Capsules (30 Capsules)

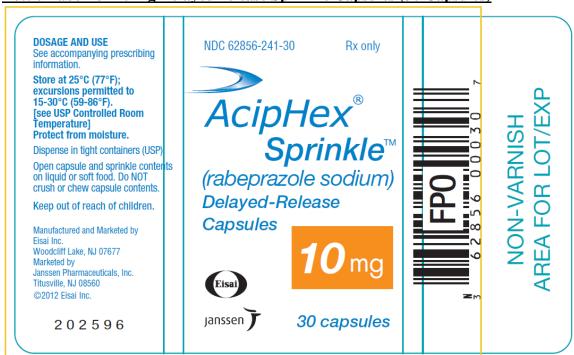


Evaluation:

Item	Comments on the Information			
	Provided in NDA			
Proprietary name, established name (font	The proprietary name and the			
size and prominence (21 CFR	established name are correctly			
201.10(g)(2))	described. The drug title is shown as:			
	AcipHex [®] Sprinkle TM (rabeprazole			
	sodium) Delayed-Release Capsules.			
	Satisfactory			
Dosage strength (21CFR 201.10(d)(1);	Strength (5 mg) is correctly expressed.			
21.CFR 201.100(b)(4))	Satisfactory			
Net contents (21 CFR 201.51(a))	The net content of 30 capsules is			
	described.			
	Satisfactory			
"Rx only" displayed prominently on the	The statement of "Rx only" is			
main panel	prominently displayed.			
	Satisfactory			
NDC number (21 CFR 201.2; 21 CFR	NDC number (62856-240-30) is			
207.35(b)(3)(i))	indicated.			
	Satisfactory			
Lot number and expiration date (21 CFR	There is a space allocated for this			
201.17)	information.			
	Satisfactory			
Storage conditions	Storage condition is correctly			
	described as: Store at 25°C (77°F);			
	excursions permitted to 15-30°C (59-			
	86°F). [see USP Controlled Room			
	Temperature] Protect from moisture.			
	Satisfactory			
Bar code (21CFR 201.25)	Barcode is indicated.			
	Satisfactory			
Name of manufacturer/distributor	The name of manufacturer is correctly			
	described per 21CFR 201.1.			
	Satisfactory			
And others, if space is available	N/A			

The immediate container label is satisfactory.

Bottle Label for 10 mg Delayed-release Sprinkle Capsules (30 Capsules)



Evaluation:

Item	Comments on the Information			
	Provided in NDA			
Proprietary name, established name (font	The proprietary name and the			
size and prominence (21 CFR	established name are correctly			
201.10(g)(2))	described. The drug title is shown as:			
	AcipHex [®] Sprinkle TM (rabeprazole			
	sodium) Delayed-Release Capsules.			
	Satisfactory			
Dosage strength (21CFR 201.10(d)(1);	Strength (10 mg) is correctly			
21.CFR 201.100(b)(4))	expressed.			
	Satisfactory			
Net contents (21 CFR 201.51(a))	The net content of 30 capsules is			
	described.			
	Satisfactory			
"Rx only" displayed prominently on the	The statement is prominently			
main panel	displayed.			
	Satisfactory			
NDC number (21 CFR 201.2; 21 CFR	NDC number (62856-241-30) is			
207.35(b)(3)(i))	indicated.			
	Satisfactory			
Lot number and expiration date (21 CFR	There is a space allocated for this			
201.17)	information.			
	Satisfactory			
Storage conditions	Storage condition is correctly			
	described as: Store at 25°C (77°F);			
	excursions permitted to 15-30°C (59-			
	86°F). [see USP Controlled Room			
	Temperature] Protect from moisture.			
	Satisfactory			
Bar code (21CFR 201.25)	Barcode is indicated.			
	Satisfactory			
Name of manufacturer/distributor	The name of manufacturer is correctly			
	described per 21CFR 201.1.			
	Satisfactory			
And others, if space is available	N/A			

The immediate container label is satisfactory.

MOO JHONG RHEE 03/21/2013 Chief. Branch IV





NDA 204736

ACIPHEX Sprinkle (rabeprazole sodium) Delayed-Release Capsules 5 mg and 10 mg

Eisai Inc.

Yichun Sun, Ph.D.

Branch IV
Division of New Drug Quality Assessment II
Office of New Drug Quality Assessment

CMC REVIEW OF NDA 204736

For the Division of Gastroenterology and Inborn Errors Products
(HFD-180)





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C DEN

CHEMISTRY REVIEW



Chemistry Review Data Sheet

Chemistry Review Data Sheet

1. NDA: 204736

2. REVIEW #: 1

3. REVIEW DATE: 28-February-2013

4. REVIEWER: Yichun Sun, Ph.D.

5. PREVIOUS DOCUMENTS:

Previous Documents	<u>Document Date</u>	
IND 33,985	10-March-1999	
Pre-sNDA meeting minutes	12-July-2011	

6. SUBMISSION(S) BEING REVIEWED:

Submission(s) Reviewed	Document Date		
Original	27-September-2012		
Amendment	10-January-2013		
Amendment	15-January-2013		
Amendment	01-February-2013		
Amendment	15-February-2013		

7. NAME & ADDRESS OF APPLICANT:

Name: Eisai Inc.

Address: 155 Tice Boulevard

Woodcliff Lake NJ 07677

Representative: Amanda Goodwin

Telephone: 201-949-4158

8. DRUG PRODUCT NAME/CODE/TYPE:

a) Proprietary Name: AcipHex Sprinkle

b) Non-Proprietary Name (USAN): Rabeprazole Sodium





Chemistry Review Data Sheet

- c) Code Name/# (ONDQA only): N/A
- d) Chem. Type/Submission Priority (ONDQA only):
 - Chem. Type: 3
 - Submission Priority: Priority Review
- 9. LEGAL BASIS FOR SUBMISSION: 505 (b) (1)
- 10. PHARMACOL. CATEGORY: Proton-pump inhibitor
- 11. DOSAGE FORM: Delayed-Release Capsules
- 12. STRENGTH/POTENCY: 2.5, 5 or 10 mg of rabeprazole sodium per capsule
- 13. ROUTE OF ADMINISTRATION: Oral
- 14. Rx/OTC DISPENSED: X Rx OTC
- 15. SPOTS (SPECIAL PRODUCTS ON-LINE TRACKING SYSTEM):

____SPOTS product – Form Completed

X Not a SPOTS product

16. CHEMICAL NAME, STRUCTURAL FORMULA, MOLECULAR FORMULA, MOLECULAR WEIGHT:

 $1 H-Benzimi dazole, 2- \hbox{\tt [[[4-(3-methoxypropoxy)-3-methyl-2-pyridinyl]]} methyl] sulfinyl]-, so dium salta and the sulfinyl s$

Structural Formula of Rabeprazole Sodium

Empirical formula: C₁₈H₂₀N₃NaO₃S

Molecular weight: 381.42





Chemistry Review Data Sheet

17. RELATED/SUPPORTING DOCUMENTS:

A. DMFs:

DMF #	TYPE	HOLDER	ITEM REFERENCED	CODE ¹	STATUS ²	DATE REVIEW COMPLETED	COMMENTS
(2)(1)	III		(b) (4)	4	Adequate	NA	NA
	III			4	Adequate	NA	NA
	III			4	Adequate	NA	NA
	III			4	Adequate	NA	NA
	IV			4	Adequate	NA	NA
	IV			4	Adequate	NA	NA

Action codes for DMF Table:

1 – DMF Reviewed.

Other codes indicate why the DMF was not reviewed, as follows:

- 2 Type 1 DMF
- 3 Reviewed previously and no revision since last review
- 4 Sufficient information in application
- 5 Authority to reference not granted
- 6 DMF not available
- 7 Other (explain under "Comments")

B. Other Documents: NA

² Adequate, Inadequate, or N/A (There is enough data in the application, therefore the DMF did not need to be reviewed)





Chemistry Review Data Sheet

18. STATUS:

ONDQA:

CONSULTS/ CMC RELATED REVIEWS	RECOMMENDATION	DATE	REVIEWER
Biometrics	N/A		
EES	Acceptable	05-February- 2013	R. Safaai-jazi
Pharm/Tox	N/A		
Biopharm	Acceptable	26-February- 2013	H. Mahayni
LNC	N/A		
Methods Validation	N/A		
DMEPA	N/A		
EA	Claim for Categorical Exclusion is granted. See p.144	26-Bebruary- 2013	Y. Sun
Microbiology	N/A		



CHEMISTRY REVIEW TEMPLATE



Chemistry Assessment Section

The Chemistry Review for NDA 204736

The Executive Summary

I. Recommendations

A. Recommendation and Conclusion on Approvability

The applicant of this NDA has provided sufficient CMC information to assure the identity, strength, purity, and quality of the drug product.

The Office of compliance has made a final "Acceptable" recommendation on the facilities involved.

Issues on label/labeling are not satisfactorily resolved.

Therefore, from the ONDQA perspective, this NDA is not ready for approval in its present form per 21 CFR 314.125(b)(6).

B. Recommendation on Phase 4 (Post-Marketing) Commitments, Agreements, and/or Risk Management Steps, if Approvable

The applicant (Eisai) commits to conduct an in vitro study to assess the effect of alcohol on the drug release of AcipHex Sprinkle Delayed Release Capsules and commits to report the study results no later than August 8, 2013 according to the amendment dated February 15, 2013.

II. Summary of Chemistry Assessments

A. Description of the Drug Product(s) and Drug Substance(s)

Drug Substance

The drug substance, rabeprazole sodium, a substituted benzimidazole, is a chemically synthesized compound known chemically as 1H-Benzimidazole, 2-[[[4-(3-methoxypropoxy)-3-methyl-2-pyridinyl]methyl]sulfinyl]-, sodium salt. It is used as a proton pump inhibitor. Rabeprazole sodium is a white to slightly yellowish-white solid. It is very soluble in water and methanol, freely soluble in ethanol, chloroform and ethyl acetate, and insoluble in ether and hexane. It is unstable when dissolved in acidic media. Rabeprazole is currently marketed globally under the trade names AcipHex® and Pariet® as enteric-coated (EC) 10 mg or 20 mg rabeprazole tablets. In the US, a 10 mg tablet is approved in adults but is not currently marketed.

Rabeprazole sodium drug substance used for preparation of rabeprazole sodium delayed-release capsules is manufactured and controlled by the currently approved methods. All information related to manufacturing and control of the drug substance is cross referenced to NDA 20973, which was approved on August 19, 1999.



CHEMISTRY REVIEW TEMPLATE



Chemistry Assessment Section

Drug Product

The drug product, rabeprazole sodium delayed-release capsules, is proposed to be used to treat Gastroesophageal Reflux Disease (GERD) in pediatric patients aged 1 to 11 years. The strengths of rabeprazole sodium capsules are available at 2.5, 5 and 10 mg per capsule (Note: Only the 5 and 10 mg capsules are sought for marketing according to the amendment dated February 1, 2013). Rabeprazole sodium capsules are hypromellose hard capsules, each containing enteric coated granules. The different strengths are achieved by . The 2.5 mg strength is The 5 mg strength is a transparent blue and opaque white No (4) capsule. The 10 mg strength is a transparent yellow and opaque white No capsule. The manufacturing process of rabeprazole sodium capsules consists of drug substance The in-process controls implemented during the manufacturing process are: The identity, strength, purity and quality (except for dissolution acceptance criterion) of the drug product are adequately controlled by the drug product specification. The rabeprazole sodium delayed-release sprinkle capsules are packaged into high density polyethylene (HDPE) bottles (bottles of 30 capsules). The proposed expiration dating period of 24 months is supported by the long-term and accelerated stability data provided. The drug product would qualify for categorical exclusion from the preparation

B. Description of How the Drug Product is Intended to be Used

of an environmental assessment according to 21 CFR 25.31(b).

The rabeprazole sodium delayed-release capsules are indicated for pediatric patients aged 1 to 11 years for:

- Healing and improvement of symptoms of gastroesophageal reflux disease (GERD)
- Maintenance of healing of GERD

The capsules should be opened and the enteric coated granules in the capsule should be sprinkled on a small amount of soft food or mixed with a small amount of infant formula and then be swallowed. The granules should not be chewed or crushed.

C. Basis for Not-Approval Recommendation

21CFR 314.125 (b)(6)

Issues of labels have not been fully resolved. (see the **List of Deficiencies** on p. 145)



CHEMISTRY REVIEW TEMPLATE



Chemistry Assessment Section

III. Administrative

A. Reviewer's Signature /s/ Y. Sun, Ph.D. B. Endorsement Block Yichun Sun, Ph.D. Reviewer Date Marie Kowblansky, Ph.D. CMC lead Moo-Jhong Rhee, Ph.D. Branch Chief Date

C. CC Block

Cathy Tran-Zwanetz, M.S.

Project Manager

138 Page(s) has been Withheld in Full as b4 (CCI/TS) immediately following this page

Date

MOO JHONG RHEE 02/28/2013 Chief, Branch IV

Initial Quality Assessment Branch 3

Pre-Marketing Assessment Division 2

FILING CHECKLIST

NDA Number: Supplement Number and Type: Established/Proper Name:

NDA 204736 Original Rabeprazole sodium

Applicant: Letter Date:

Stamp Date:

Eisai Inc. September 27, 2012

The following parameters are necessary in order to initiate a full review, i.e., complete enough to review but may have deficiencies. On **initial** overview of the NDA application for filing:

	A. GENERAL			
	Parameter	Yes	No	Comment
1.	Is the CMC section organized adequately?			
2.	Is the CMC section indexed and paginated (including all PDF files) adequately?	√		
3.	Are all the pages in the CMC section legible?	V		
4.	Has all information requested during the IND phase, and at the pre-NDA meetings been included?	√		

Reference ID: 3217199

	B. FACILITIES*					
	Parameter	Yes	No	Comment		
5.	Is a single, comprehensive list of all involved facilities available in one location in the application?		V	The sites involved in the manufacture and test of the drug substance and drug product are provided in the application.		
6.	For a naturally-derived API only, are the facilities responsible for critical intermediate or crude API manufacturing, or performing upstream steps, specified in the application? If not, has a justification been provided for this omission? This question is not applicable for synthesized API.			Not applicable		
7.	Are drug substance manufacturing sites identified on FDA Form 356h or associated continuation sheet? For each site, does the application list: Name of facility, Full address of facility including street, city, state, country FEI number for facility (if previously registered with FDA) Full name and title, telephone, fax number and email for on-site contact person. Is the manufacturing responsibility and function identified for each facility?, and DMF number (if applicable)		V	The sites involved in the manufacture of the drug substance are provided in the application.		
8.	Are drug product manufacturing sites are identified on FDA Form 356h or associated continuation sheet. For each site, does the application list: Name of facility, Full address of facility including street, city, state, country FEI number for facility (if previously registered with FDA) Full name and title, telephone, fax number and email for on-site contact person. Is the manufacturing responsibility and function identified for each facility?, and DMF number (if applicable)		1	The manufacture site of the drug product is provided in the application.		

9.	Are additional manufacturing, packaging and control/testing laboratory sites are identified on FDA Form 356h or associated continuation sheet. For each site, does the application list: • Name of facility, • Full address of facility including street, city, state, country • FEI number for facility (if previously registered with FDA) • Full name and title, telephone, fax number and email for on-site contact person. • Is the manufacturing responsibility and function identified for each facility?, and • DMF number (if applicable)	V	The site involved in the packaging and test of the drug product is provided in the application.
10.	Is a statement provided that all facilities are ready for GMP inspection at the time of submission?	√	

^{*} If any information regarding the facilities is omitted, this should be addressed ASAP with the applicant and can be a *potential* filing issue or a *potential* review issue.

	C. ENVIRONMENTAL ASSESMENT				
	Parameter	Yes	No	Comment	
11.	Has an environmental assessment report or categorical exclusion been provided?	√		Claim of categorical exclusion	

	D. DRUG SUBSTANCE/ACTIVE PHARMACEUTICAL INGREDIENT (DS/API)				
	Parameter	Yes	No	Comment	
12.	Does the section contain a description of the DS manufacturing process?		√	Referenced to NDA 20973	
13.	Does the section contain identification and controls of critical steps and intermediates of the DS?		√	Referenced to NDA 20973	
14.	Does the section contain information regarding the characterization of the DS?		√	Referenced to NDA 20973	
15.	Does the section contain controls for the DS?		√	Referenced to NDA 20973	
16.	Has stability data and analysis been provided for the drug substance?		√	Referenced to NDA 20973	
17.	Does the application contain Quality by Design (QbD) information regarding the DS?		√	Not a filing issue	
18.	Does the application contain Process Analytical Technology (PAT) information regarding the DS?		√	Not a filing issue	

	E. DRUG PRODUCT (DP)				
	Parameter	Yes	No	Comment	
19.	Is there a description of manufacturing process and methods for DP production through finishing, including formulation, filling, labeling and packaging?	1			
20.	Does the section contain identification and controls of critical steps and intermediates of the DP, including analytical procedures and method validation reports for assay and related substances if applicable?	√			
21.	Is there a batch production record and a proposed master batch record?	√			
22.	Has an investigational formulations section been provided? Is there adequate linkage between the investigational product and the proposed marketed product?	1		BE studies were conducted to confirm bioequivalence between all the formulations.	
23.	Have any biowaivers been requested?			Not needed	
24.	Does the section contain description of to-be- marketed container/closure system and presentations)?	√			
25.	Does the section contain controls of the final drug product?	√			
26.	Has stability data and analysis been provided to support the requested expiration date?	√			
27.	Does the application contain Quality by Design (QbD) information regarding the DP?		√	Not a filing issue	
28.	Does the application contain Process Analytical Technology (PAT) information regarding the DP?		√	Not a filing issue	

	F. METHODS VALIDATION (MV)						
	Parameter	Yes	No	Comment			
29.	Is there a methods validation package?		√	Although no separate validation package has been submitted, there appears to be sufficient methods validation information in the body of the submission. Contact information to request samples of drug substance, working standards, drug product, and rabeprazole sodium enteric coated granules for rabeprazole sodium sprinkle capsules is provided.			

	G. MICROBIOLOGY					
	Parameter	Yes	No	Comment		
30.	If appropriate, is a separate microbiological section included assuring sterility of the drug product?		V	Tests of microbial limits and acceptance criteria are listed in the drug product specification.		

	H. MASTER FILES (DMF/MAF)				
	Parameter	Yes	No	Comment	
31.	Is information for critical DMF references (i.e., for drug substance and important packaging components for non-solid-oral drug products) complete?	√			

	I. LABELING				
	Parameter	Yes	No	Comment	
32.	Has the draft package insert been provided?	√			
33.	Have the immediate container and carton labels been provided?	√			

	J. FILING CONCLUSION					
	Parameter	Yes	No	Comment		
34.	IS THE PRODUCT QUALITY SECTION OF THE APPLICATION FILEABLE?	√				
35.	If the NDA is not fileable from the product quality perspective, state the reasons and provide filing comments to be sent to the Applicant.			Not applicable		
36.	Are there any potential review issues to be forwarded to the Applicant for the 74-day letter?		1	No issues for inclusion in the 74- day letter		

{See appended electronic signature page}

Yichun Sun, Ph.D. CMC Reviewer Branch IV, Division of Pre-Marketing Assessment II Office of New Drug Quality Assessment

{See appended electronic signature page}

Moo-Jhong Rhee, Ph.D. Branch Chief Branch IV, Division of Pre-Marketing Assessment II Office of New Drug Quality Assessment 11/15/2012