

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**20-958**

**CHEMISTRY REVIEW(S)**

Levine

OCT - 6 2000

DIVISION OF GASTROINTESTINAL AND COAGULATION DRUG PRODUCTS  
Review of Chemistry, Manufacturing and Controls

NDA 20-958	CHEM.REVIEW #3	REVIEW DATE:	10/06/00
<b>SUBMISSION TYPE</b>	<b>DOCUMENT DATE</b>	<b>CDER DATE</b>	<b>ASSIGNED DATE</b>
BC Amendment	06/09/00	06/12/00	06/21/00
FAX	10/03/00	10/03/00	10/04/00

**NAME & ADDRESS OF APPLICANT:**  
Merck Research Laboratories  
Sumneytown Pike  
P.O. Box 4, BLA-20  
West Point, PA 19486

**DRUG PRODUCT NAME:**  
PROPRIETARY: PEPCID™ COMPLETE acid reducer + antacid  
NONPROPRIETARY: famotidine/antacid combination tablets [FACT]  
CHEMICAL TYPE/THERAPEUTIC CLASS: 4SN

**INDICATION:** treatment and prevention of heartburn, acid indigestion and sour stomach  
**DOSAGE FORM:** chewable tablets  
**STRENGTH:** 10 mg FAM/800 mg CaCO<sub>3</sub>/165 mg Mg(OH)<sub>2</sub>  
**ROUTE OF ADMINISTRATION:** oral  
**HOW DISPENSED:** CTC  
**CHEMICAL NAME/STRUCTURE, MOL. FORMULA/WEIGHT:** see Review Notes  
**SPOTS:** No

\* See Meeting Minutes Memo dated 10/6/00 in the SUMMARY MEMO section of the action pkg (vol 1) for reference to approval  
JL  
10/13/00

**SUPPORTING DOCUMENTS:**

Type	DMF#	Firm	Material	Status
I				NOTED in Review #1
I				NOTED in Review #1
I				NOTED in Review #1
I				NOTED in Review #1
III				ACCEPTED in Review #1
III				ACCEPTED in Review #1
IV				ACCEPTED in Review #1
III				ACCEPTED in Review #1
III				ACCEPTED in Review #1 for TOP 5-03-11 & TOP 5-03-13. ACCEPTED in Review #3 for SOP 76076
III				ACCEPTED in Review #1 WD Blister in Review #1
III				ACCEPTED in Review #1
III				NOTED in Review #1 ACCEPTED with comment in Review #1
III				ACCEPTED in Review #1
II				ACCEPTED in Review #1
II				"Retired" in Review #1 WD Blister in Review #1
I				ACCEPTED in Review #1
II				ACCEPTED in Review #1
II				ACCEPTED in Review #1
I				NOTED in Review #1
III				ACCEPTED in Review #1
I				NOTED in Review #1
I				NOTED in Review #1
III				ACCEPTED in Review #1

**RFST POSSIBLE COPY**

**DOCUMENTS SUPPORTED BY THIS FILE:** none

**RELATED DOCUMENTS:** See CMC Review #2

**CONSULTS:** Resolved in CMC Review #2

**REMARKS/COMMENTS:** The last issues are being resolved in an accelerated review.

**CONCLUSIONS & RECOMMENDATIONS:**

The proposed application is **APPROVABLE (AE)** pending resolution of the items 2-5 listed in section H of this review.

**/S/**

\_\_\_\_\_  
Mike Adams

**/S/**

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Liang Zhou, Ph.D.  
Chemistry Team Leader, HFD-820

cc:

NDA 20-958

HFD-180/div file

HFD-181/CSO/P.Levine

HFD-820/M.Adams

R/D Initial: L.Zhou 10/ /00

Filename: c:\my documents\20958010.3ma.doc

Levine

MAY 8 2000

**DIVISION OF GASTROINTESTINAL AND COAGULATION DRUG PRODUCTS**  
**Review of Chemistry, Manufacturing and Controls**  
**Amendment**

**NDA 20-958      CHEM.REVIEW #2A      REVIEW DATE: 05/05/00**

**SUBMISSION TYPE      DOCUMENT DATE      CDER DATE      ASSIGNED DATE**

See CMC Review #2

**NAME & ADDRESS OF APPLICANT:**

Merck Research Laboratories  
Sumneytown Pike  
P.O. Box 4, BLA-20  
West Point, PA 19486

**DRUG PRODUCT NAME:**

PROPRIETARY: PEPCID™ COMPLETE acid reducer + antacid  
NONPROPRIETARY: famotidine/antacid combination tablets  
CODE NAME: FACT  
CHEMICAL TYPE/THERAPEUTIC CLASS: 4SN

**INDICATION:** treatment and prevention of heartburn, acid indigestion and sour stomach

**DOSAGE FORM:** chewable tablets

**STRENGTH:** 10 mg FAM/800 mg CaCO<sub>3</sub>/165 mg Mg(OH)<sub>2</sub>

**ROUTE OF ADMINISTRATION:** oral

**HOW DISPENSED:** OTC

**CHEMICAL NAME/STRUCTURE, MOL. FORMULA/WEIGHT:** see review notes

**SPOTS:** No

**SUPPORTING DOCUMENTS:** See CMC Review #1

**DOCUMENTS SUPPORTED BY THIS FILE:** none

**RELATED DOCUMENTS:** See CMC Review #2

**CONSULTS:** See CMC Review #2

**REMARKS/COMMENTS:** This amendment is to address the issues from Biopharm Review #3 which recommended a new dissolution procedure and acceptance specification.



Levine

MAY - 1 2000

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page 1

**DIVISION OF GASTROINTESTINAL AND COAGULATION DRUG PRODUCTS**  
**Review of Chemistry, Manufacturing and Controls**

**NDA 20-958      CHEM.REVIEW #2      REVIEW DATE: 05/01/00**

<b>SUBMISSION TYPE</b>	<b>DOCUMENT DATE</b>	<b>CDER DATE</b>	<b>ASSIGNED DATE</b>
BZ Amendment	12/17/99	12/20/99	01/04/00
BC Amendment	01/22/00	01/25/00	02/02/00

**NAME & ADDRESS OF APPLICANT:**

Merck Research Laboratories  
Sumneytown Pike  
P.O. Box 4, BLA-20  
West Point, PA 19486

*1-22-99*

**DRUG PRODUCT NAME:**

**PROPRIETARY:** PEPCID™ COMPLETE acid reducer + antacid  
**NONPROPRIETARY:** famotidine/antacid combination tablets  
**CODE NAME:** FACT  
**CHEMICAL TYPE/THERAPEUTIC CLASS:** 4SN

**INDICATION:** treatment and prevention of heartburn, acid indigestion and sour stomach

**DOSAGE FORM:** chewable tablets

**STRENGTH:** 10 mg FAM/800 mg CaCO<sub>3</sub>/165 mg Mg(OH)<sub>2</sub>

**ROUTE OF ADMINISTRATION:** oral

**HOW DISPENSED:** OTC

**CHEMICAL NAME/STRUCTURE, MOL. FORMULA/WEIGHT:** see review notes

**SPOTS:** No

**SUPPORTING DOCUMENTS:** See CMC Review #1

**DOCUMENTS SUPPORTED BY THIS FILE:** none

**RELATED DOCUMENTS:**

NDA 20-752      Pepcid® AC RPD rapidly disintegrating tablets  
NDA 20-325      Pepcid® AC tablets  
NDA 19-462      Tablets PEPCID®  
NDA 19-510      PEPCID® Injection  
NDA 19-527      PEPCID® for Oral Suspension  
NDA 20-249      PEPCID® Injection Premixed  
NDA 20-801      PEPCID® AC chewable tablets  
NDA 20-902      PEPCID® AC gelcaps

**CONSULTS:**

Biopharm: Review #1 (dated 10/20/98) of the 02/23/98 submission recommended another clinical study and the development of a revised dissolution study. Review #2 is pending.

Statistics: None

EER: EES submissions made 07/17/98, 02/15/00 and 02/17/00.

EA: Request for categorical exclusion accepted in CMC Review #1.

Trademark: Submitted to LNC (D.Boring) by CSO; concluded that the proposed name was unacceptable. New labels and labeling include revised product name; to be resolved by OTC reviewers.

**REMARKS/COMMENTS:**

The firm provided a LOA to the DMF for — responded to the 02/19/99 NA letter, and made additional changes [new trade name; revised FAM — coating process, grade of Mg(OH)<sub>2</sub>; and assay/purity method for uncoated FAM — and an alternate site for stability storage & testing for release and stability. The submission re the dissolution process and specification were consulted to Biopharm without review.

APPEARS THIS WAY  
ON ORIGINAL

APPEARS THIS WAY  
ON ORIGINAL



**DIVISION OF GASTROINTESTINAL AND COAGULATION DRUG PRODUCTS**  
**Review of Chemistry, Manufacturing and Controls**

FEB 11 1999

**NDA 20-958      CHEM.REVIEW #1      REVIEW DATE: 02/01/99**

<b>SUBMISSION TYPE</b>	<b>DOCUMENT DATE</b>	<b>CDER DATE</b>	<b>ASSIGNED DATE</b>
Original NDA	02/20/98	02/23/98	02/27/98
BC Amendment <sup>1</sup>	03/06/98	03/09/98	03/23/98
FAX <sup>2</sup>	05/08/98		
Correspondence <sup>3</sup>	07/01/98		
BC amendment <sup>4</sup>	07/22/98	07/24/98	08/05/98
BC Amendment <sup>5</sup>	11/19/98		

- 1 Establishment information
- 2 Request from HFD-180 for further CMC, Clinical and Biopharm information
- 3 Response from the firm to Clinical and Biopharm comments in the 05/08/98 FAX
- 4 Response from the firm to CMC comments in the 05/08/98 FAX
- 5 Additional stability data

**NAME & ADDRESS OF APPLICANT:**

Merck Research Laboratories  
Sumneytown Pike  
P.O. Box 4, BLA-20  
West Point, PA 19486

**DRUG PRODUCT NAME:**

PROPRIETARY: PEPCID<sup>®</sup> \_\_\_\_\_  
NONPROPRIETARY: Famotidine/Antacid Combination Tablets  
CODE NAME: FACT  
CHEMICAL TYPE/THERAPEUTIC CLASS: 1S

**INDICATION:** treatment and prevention of heartburn, acid indigestion and sour stomach

**DOSAGE FORM:** chewable tablet

**STRENGTH:** 10 mg famotidine/800 mg CaCO<sub>3</sub>/165 mg Mg(OH)<sub>2</sub>

**ROUTE OF ADMINISTRATION:** oral

**HOW DISPENSED:** OTC

**CHEMICAL NAME/STRUCTURE, MOL. FORMULA/WEIGHT:** see review notes

**SUPPORTING DOCUMENTS:**

DMF \_\_\_\_\_  
DMF \_\_\_\_\_  
DMF \_\_\_\_\_  
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*/S/*      *02/11/99*

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Mike Adams  
Review Chemist, HFD-180

*/S/*

*2/11/99*

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Eric P. Duffy, Ph.D.  
Chemistry Team Leader, HFD-180

cc:

NDA 20-958

HFD-180/div file

HFD-181/CSO/M.Folkendt

HFD-820/M.Adams

R/D Initial: E.Duffy 02/ /99

WMA/dob **F/T 2-10-99** \ N:\wordfiles\chem\20958029.1MA.doc