

**CENTER FOR DRUG EVALUATION AND RESEARCH**

**Approval Package for:**

***APPLICATION NUMBER:***

**18-998/S023**

***Trade Name:*** Vastoec

***Generic Name:*** Enalapril maleate

***Sponsor:*** Merck Sharp & Dohme Research Laboratories

***Approval Date:*** July 19, 1990

***Indications:*** The treatment of hypertension.

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

***APPLICATION NUMBER:***

**18-998/S023**

**CONTENTS**

**Reviews / Information Included in this NDA Review.**

<b>Approval Letter</b>	<b>X</b>
<b>Approvable Letter</b>	
<b>Labeling</b>	
<b>Medical Review(s)</b>	
<b>Chemistry Review(s)</b>	<b>X</b>
<b>Pharmacology Review(s)</b>	
<b>Statistical Review(s)</b>	
<b>Microbiology Review(s)</b>	
<b>Clinical Pharmacology/ Biopharmaceutics Review(s)</b>	
<b>Administrative/Correspondence Document(s)</b>	

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**18-998/S023**

**APPROVAL LETTER**

JUL 19 1990

NDA 18-998/S-023

Merck Sharp & Dohme Research Laboratories  
Division of Merck & Co., Inc.  
Attention: Elliott T. Berger  
West Point, Pennsylvania 19486

Dear Dr. Berger:

Please refer to your April 10, 1990 supplemental new drug application submitted under section 505(b)(1) of the Federal Food, Drug and Cosmetic Act for Vasotec (enalapril maleate) Tablets.

This supplemental application provides for an alternate manufacturing process for packaging of Tablets \_\_\_\_\_ in

We have completed the review of this supplemental application and it is approved.

We remind you that you must comply with the requirements for an approved NDA set forth under 21 CFR 314.80 and 314.81.

Sincerely yours,

*RW 7-19-90*

Robert J. Wolters, Ph.D.  
Supervisory Chemist  
Division of Cardio-Renal Drug Products  
Office of Drug Evaluation I  
Center for Drug Evaluation and Research

cc:

Orig.

HFD-110

HFD-110/CSO

HFD-110/SZimmerman/7/13/90

sh/7/13/90;7/16/90;7/17/90:5639h

R/D init: 7/16/90

APPROVAL

Approval Date: 12/24/85

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**18-998/S023**

**CHEMISTRY REVIEW(S)**

<b>CHEMIST'S REVIEW</b> <small>(If necessary, continue any item on 8" x 10 1/2" paper. Key continuation to item by number.)</small>		<b>1. ORGANIZATION</b> HFN-110	<b>2. NDA NUMBER</b> 18-998
<b>3. NAME AND ADDRESS OF APPLICANT (City and State)</b> MSD West Point, Penn. 19486		<b>4. AF NUMBER</b>	
<b>6. NAME OF DRUG</b> Vasotec		<b>7. NONPROPRIETARY NAME</b> Enalapril Maleate	<b>5. SUPPLEMENT(S)</b> NUMBER(S) DATE(S) S-023 4/10/90
<b>8. SUPPLEMENT(S) PROVIDES FOR:</b> of the tablets by an alternate packaging in _____		<b>9. AMENDMENTS AND OTHER (Reports, etc.) DATES</b> S-023 4/10/90	
<b>10. PHARMACOLOGICAL CATEGORY</b> No change	<b>11. HOW DISPENSED</b> <input checked="" type="checkbox"/> RX <input type="checkbox"/> OTC	<b>12. RELATED IND/NDA/DMF(S)</b>	
<b>13. DOSAGE FORM(S)</b> No change	<b>14. POTENCY (see)</b> No change	<b>16. RECORDS AND REPORTS</b> CURRENT <input type="checkbox"/> YES <input type="checkbox"/> NO REVIEWED <input type="checkbox"/> YES <input type="checkbox"/> NO	
<b>15. CHEMICAL NAME AND STRUCTURE</b>		<b>17. COMMENTS</b> Acceptable material will be released by MSD personnel. An Inspection (GMP) Check was made (5/3/90) and an acceptable response was issued (5/14/90) and received on 7/13/90.  # STS=52	
<b>18. CONCLUSIONS AND RECOMMENDATIONS</b> AP action			
<b>19. REVIEWER</b>			
<b>NAME</b> Stuart Zimmerman	<b>SIGNATURE</b>	<b>DATE COMPLETED</b> 7/13/90	
<b>DISTRIBUTION</b>	<input checked="" type="checkbox"/> ORIGINAL JACKET	<input type="checkbox"/> REVIEWER	<input type="checkbox"/> DIVISION FILE

YMW  
7/16/90

CHEMIST'S REVIEW <small>(If necessary, continue any item on 8" x 10 1/2" paper. Key continuation to item by number.)</small>		1. ORGANIZATION HFN-110	2. NDA NUMBER 18-998
3. NAME AND ADDRESS OF APPLICANT (City and State) MSD West Point, Penn. 19486		4. AF NUMBER	
		5. SUPPLEMENT(S) NUMBER(S)      DATE(S) S-023      4/10/90	
6. NAME OF DRUG Vasotec	7. NONPROPRIETARY NAME Enalapril Maleate		9. AMENDMENTS AND OTHER (Reports, etc.) DATES S-023      4/10/90
8. SUPPLEMENT(S) PROVIDES FOR: an alternate packaging of the tablets by _____ in _____			
10. PHARMACOLOGICAL CATEGORY No change	11. HOW DISPENSED <input checked="" type="checkbox"/> RX <input type="checkbox"/> OTC		12. RELATED IND/NDA/DMF(S)
13. DOSAGE FORM(S) No change	14. POTENCY (see) No change		
15. CHEMICAL NAME AND STRUCTURE			16. RECORDS AND REPORTS CURRENT <input type="checkbox"/> YES <input type="checkbox"/> NO
			REVIEWED <input type="checkbox"/> YES <input type="checkbox"/> NO
17. COMMENTS Acceptable material will be released by MSD personnel. An Inspection (GMP) Check was made (5/3/90) and an acceptable response was issued (5/14/90) and received on 7/13/90.  This is a second copy that has available a second page of the Chemist's Review.  ± STS=52			
18. CONCLUSIONS AND RECOMMENDATIONS AP action			
19. REVIEWER			
NAME Stuart Zimmerman		SIGNATURE	DATE COMPLETED 7/13/90
DISTRIBUTION		<input type="checkbox"/> ORIGINAL JACKET	<input checked="" type="checkbox"/> REVIEWER
		<input checked="" type="checkbox"/> DIVISION FILE	<input type="checkbox"/> CSO

DMF \_\_\_\_\_

The DMF describes a plant constructed in 1985 for the manufacture/packaging of finished drug products. It was constructed under the supervision of \_\_\_\_\_ following the principle of CGMP's. Volume 1.1 deals with this in the August 1985 submission. Assurances are offered to provide a tight and constant control. Production equipment is summarized with respect to site. Protocols appear to be acceptable for receiving and the quarantine of incoming goods.

The name and address is:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Bioavailability Status: Satisfactory.

The proposed change deals only with the use of an alternate packager and so this would not be expected to impact on any bioavailability concerns that could be considered.

Stuart Zimmerman, Ph.D.

cc:Orig.  
HFD-110  
HFD-110/CSO  
HFD-110/SZimmerman  
sh/7/19/90:5652h