

# CENTER FOR DRUG EVALUATION AND RESEARCH

## Approval Package for:

*APPLICATION NUMBER:*

**NDA 20-021/S-002**

*Name:* Efidac/24 (Pseudoephedrine HCl) Extended Release  
Tablets, 240 mg

*Sponsor:* ALZA Corporation

*Approval Date:* May 21, 1993

# CENTER FOR DRUG EVALUATION AND RESEARCH

*APPLICATION NUMBER:*  
**NDA 20-021/S-002**

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**CENTER FOR DRUG EVALUATION AND RESEARCH**

***APPLICATION NUMBER:***

**NDA 20-021/S-002**

**APPROVAL LETTER**

MAY 21 1993

NDA 20-021/S-002

Alza Corporation  
P.O. Box 10950  
950 Page Mill Road  
Palo Alto, CA 94303-0802

Attention: Harriet Benson  
Vice President, Regulatory Affairs

Gentlemen:

Please refer to your supplemental new drug application dated January 29, 1993 submitted pursuant to section 505(b) of the Federal Food, Drug, and Cosmetic Act for Efidac/24 (Pseudoephedrine HCl) Extended Release Tablets.

We also acknowledge your additional communications dated March 16, 1993, May 11, 1993 and May 18, 1993 amending the supplemental application.

The supplemental application provides for an alternate facility to package the drug product. The facility is \_\_\_\_\_ located at \_\_\_\_\_  
\_\_\_\_\_. The tablets are shipped in bulk from Vacaville California to \_\_\_\_\_. The same blister packaging materials used in Alza's Vacaville CA facility are also used by \_\_\_\_\_

We have completed our review of the supplemental application and it is approved. We remind you that you must comply with the requirements set forth under 21 CFR 314.80 and 314.81 for approved new drugs.

Sincerely yours,

Guirag Poochikian, Ph.D.  
Supervisory Chemist  
Division of Oncology and  
Pulmonary Drug Products  
Office of Drug Evaluation I  
Center for Drug Evaluation and Research

CC:

NDA 20-021/S-002

HFD-150/Division File

HFD-150/GKPoochikian

HFD-150/MCTheodorakis

HFD-150/CSchumaker

R/D Init. by: LNg for GPoochikian/5-19-93

F/T by: DEFoxx/5-20-93

DOC.\ALZA\20021-02.SLA

*MCTheodorakis 5/20/93*

*DF 5/20/93*

APPROVAL

**APPEARS THIS WAY  
ON ORIGINAL**

**CENTER FOR DRUG EVALUATION AND RESEARCH**

*APPLICATION NUMBER:*  
**NDA 20-021/S-002**

**CHEMISTRY REVIEW(S)**

<b>CHEMIST'S REVIEW</b>		<b>Organization</b> FDA/ HFD-150	<b>NDA Number</b> 20-021
<b>Name and Address of Applicant:</b> Alza Corporation 950 Page Mill Road, P.O. Box 10950 Palo Alto, CA 94303-0802 tel.: 415-494-5022, fax: 415-494-5050 Attention: Dr. Harriet Benson			<b>AF Number</b>
<b>Name of Drug</b> Efidac/24 Extended Release Tablets	<b>Nonproprietary Name</b> Pseudoephedrine HCl Extended Release Tablets		<b>Supplement Number Date</b> S-002 1/29/93
<b>Supplement Provides for</b> an alternate packager of the drug product. The packager is _____ located at _____  The same blister packaging materials used in Alza's Vacaville CA facility are also used by			<b>Amendment &amp; dates</b> 3/16/93 5/11/93 5/18/93
<b>Pharmacological Category</b>	<b>How Dispensed</b> Rx   OTC x		<b>Related INDs, NDAs and DMF</b>
<b>Dosage Form:</b> Extended Release Tablets	<b>Potency:</b> 240 mg/tablet		
<b>Chemical Name and Structure</b> See USP (XXII) p. 1186.		<b>Records &amp; Reports</b>	
		<b>Current</b> yes no	
		<b>Reviewed</b> yes no	
<b>COMMENTS:</b> See page 2.			
<b>CONCLUSIONS and RECOMMENDATIONS:</b> It is recommended that approval be granted to this supplemental application.			
CC: NDA 20-021/S-002 HFD-150/Division File HFD-150/MTheodorakis HFD-150/GPoochikian HFD-150/CSO R/D Init. by: <u>JN for GP</u> 5/19/93 F/T by: MCT/ DOC. \ALZA\20021-02.SUP			
<b>REVIEWER</b> <b>NAME</b> Michael C. Theodorakis Ph.D.		<b>SIGNATURE</b> <i>M Theodorakis</i>	<b>DATE COMPLETED</b> 5/18/93
Distribution: Original Jacket		Reviewer	Division File

**12. RELATED INDS, NDAs, DMFs:**

~~DMF~~ Type I, \_\_\_\_\_, facilities, personnel, equipment.

**17. COMMENTS:**

- a. The alternate packager is \_\_\_\_\_ located at \_\_\_\_\_. The tablets are shipped in bulk from Vacaville California to \_\_\_\_\_. The same blister packaging materials used in Alza's Vacaville CA facility are also used by \_\_\_\_\_.
- b. An EER request was issued on \_\_\_\_\_ for \_\_\_\_\_. The facility was found to be acceptable on \_\_\_\_\_.
- c. The bulk tablets are shipped from Vacaville CA to \_\_\_\_\_. The tablets \_\_\_\_\_ are packaged \_\_\_\_\_.
- 
- d.
- e. The following lots were manufactured at Alza in Vacaville CA, packaged at \_\_\_\_\_ and placed on stability at Alza:

<u>Storage</u> <u>Lot No.</u>	<u>Conditions</u>	<u>Period of</u> <u>Storage</u> (months)	<u>Container</u>
91-1389:	30°C	6	blister package
	37°C/75% RH	3	
	40°C	3	
91-1392:	30°C	6	blister package
	37°C/75% RH	3	
	40°C	3	
91-1396:	30°C	6	blister package
	37°C/75% RH	3	
	40°C	3	

The limited stability data indicate that the drug product packaged at \_\_\_\_\_ was stable over the period tested. Based on these data and on data submitted previously for the facility of Vacaville, it is recommended that the same expiration dating period be granted for the drug product packaged at \_\_\_\_\_.

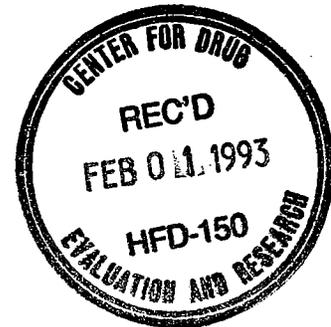
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*APPLICATION NUMBER:*  
**NDA 20-021/S-002**

**CORRESPONDENCE**

# alza

NDA NO. 2001 REF. NO. 002  
NDA SUPPL FOR SCM



NDA 20-021  
Volume 21.1

January 29, 1993

Center for Drug Evaluation and Research  
Office of Drug Evaluation I, HFD-150  
Document Control Room 9B-23  
5600 Fishers Lane  
Rockville, MD 20857

Attention: Gregory P. Burke, M.D., Ph.D., Director  
Division of Oncologic and Pulmonary Drug Products

Subject: EFIDAC/24® pseudoephedrine hydrochloride (240 mg):  
Supplemental New Drug Application - Alternate Packaging Site  
**EXPEDITED REVIEW REQUESTED**

Dear Dr. Burke:

In accordance with 21 CFR 314.70 (b)(2)(vi) we are submitting a supplemental new drug application to use an alternate packaging site for EFIDAC/24® pseudoephedrine hydrochloride (240 mg). We request that \_\_\_\_\_ located on \_\_\_\_\_ be approved as an alternative packaging site for EFIDAC/24. Currently EFIDAC/24 is manufactured and packaged at ALZA Corporation's approved facility in Vacaville, California.

The EFIDAC/24 product will continue to be manufactured by ALZA Corporation using the currently approved manufacturing procedure. The finished tablets will be tested by ALZA in accordance to the approved Quality Standard and only acceptable finished product will be shipped in bulk to \_\_\_\_\_ packaging facility. At \_\_\_\_\_ the bulk finished tablets will be visually inspected and blister packaged using the packaging materials currently approved for use by ALZA Corporation.

Three commercial sized production lots were sampled, packaged at \_\_\_\_\_ and placed on stability. Three (3) month accelerated data and six (6) month room temperature data for three (3) lots of EFIDAC/24 packaged at \_\_\_\_\_ are provided in Attachment 1. These lots will continue to be monitored at the specified time points. At least one lot each year thereafter will be placed on stability and monitored. Our stability commitment is provided in Attachment 2.

Our commitment for expiration dating is provided in Attachment 3. Attachment 4 contains the DMF Authorization letter from \_\_\_\_\_ authorizing the FDA full reference to \_\_\_\_\_ DMF No. \_\_\_\_\_

An expedited review is requested because ALZA Corporation is currently the single approved packaging source for this product. We may be facing capacity constraints as demand for this product exceeds that anticipated. This additional packaging site, will allow greater flexibility in scheduling, provide for increased production and provide an essential back-up in case of any unforeseen problems at ALZA corporation.

If you need any additional information, please feel free to contact me at (415) 494-5022 or via facsimile at (415) 494-5050.

Sincerely,

*Harriet Benson, Ph.D.*

Harriet Benson, Ph.D.  
Vice President  
Regulatory Affairs

**APPEARS THIS WAY  
ON ORIGINAL**



Food and Drug Administration  
Rockville MD 20857

Date February 1, 1993

NDA No. 20-021

ALZA Corporation  
950 Page Mill Road  
Palo Alto, California  
94304

Dear Sir/Madam:

We acknowledge receipt of your supplemental application for the following:

Name of Drug: Pseudoephedrine Hydrochloride (240 mg)

NDA Number: 20-021

Supplement Number: SCM-002

Date of Supplement: January 29, 1993

Date of Receipt: February 1, 1993

All communications concerning this NDA should be addressed as follows:

National Center for Drugs and Biologics(HFN-150)  
Attention: Document Control Room 17B-28  
5600 Fishers Lane  
Rockville, MD 20857

*Nancy Crase*

*for:* Supervisory Consumer Safety Officer  
Division of Oncology and Radiopharmaceutical  
Drug Products  
National Center for Drugs and Biologics



NDA SUPPL AMENDMENT

SEM (Be)  
S002

NDA 20-021  
Volume 23.1



March 16, 1993

Center for Drug Evaluation and Research  
Office of Drug Evaluation I, HFD-150  
Document Control Room 9B-23  
5600 Fishers Lane  
Rockville, MD 20857

Attention: Gregory P. Burke, M.D., Ph.D., Director  
Division of Oncologic and Pulmonary Drug Products

Subject: EFIDAC/24® pseudoephedrine hydrochloride (240 mg):  
Amendment to our Supplemental New Drug Application - Packaging for  
Bulk Shipment to Alternative Packaging Site

Dear Dr. Burke:

We are submitting an amendment to our alternative packaging site supplement (Volume 21.1) submitted to the FDA on January 29, 1993 for EFIDAC/24® pseudoephedrine hydrochloride (240 mg). This supplement requested \_\_\_\_\_ located in \_\_\_\_\_ to be approved as an alternative packaging site for EFIDAC/24. Currently EFIDAC/24 is manufactured and packaged at ALZA Corporation's approved facility in Vacaville, California.

As previously mentioned the EFIDAC/24 product will continue to be manufactured by ALZA Corporation using the currently approved manufacturing procedure. The finished tablets will be tested by ALZA in accordance with the approved Quality Standard and only acceptable finished product will be shipped in bulk to \_\_\_\_\_ packaging facility.

The bulk shipment will consist of approximately \_\_\_\_\_ of systems packaged in



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Once at — the bulk finished tablets will be visually inspected and blister packaged using the packaging materials currently approved for use by ALZA Corporation.

If you need any additional information, please feel free to contact me at (415) 494-5022 or via facsimile at (415) 494-5050.

Sincerely,



Harriet Benson, Ph.D.  
Vice President  
Regulatory Affairs

**APPEARS THIS WAY  
ON ORIGINAL**



SEM (BC)  
002  
NDA SUPPL AMENDMENT

NDA 20-021

May 11, 1993

Center for Drug Evaluation and Research  
Office of Drug Evaluation I, HFD-150  
Document Control Room 9B-23  
5600 Fishers Lane  
Rockville, MD 20857

Attention: Michael Theodorakis, Chemist  
Division of Oncologic and Pulmonary Drug Products

Subject: EFIDAC/24® pseudoephedrine hydrochloride (240 mg):  
Requested Information (\_\_\_\_\_)

Dear Mr. Theodorakis:

The following is in response to your request for additional information regarding our alternate packaging site supplement (Volume 21.1 and Volume 23.1) for EFIDAC/24® pseudoephedrine hydrochloride (240 mg).

If you need any additional information, please feel free to contact me at (415) 494-5022 or via facsimile at (415) 494-5050.

Sincerely,

Harriet Benson, Ph.D.  
Vice President  
Regulatory Affairs

size of —  
composition of —  
cert. of analysis.  
~~attached~~  
configuration.

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NDA 20-021

May 18, 1993

Center for Drug Evaluation and Research  
Office of Drug Evaluation I, HFD-150  
Document Control Room 9B-23  
5600 Fishers Lane  
Rockville, MD 20857

Attention: Michael Theodorakis, Chemist  
Division of Oncologic and Pulmonary Drug Products

Subject: EFIDAC/24® pseudoephedrine hydrochloride (240 mg):  
Requested Information (\_\_\_\_\_)

Dear Mr. Theodorakis:

The following is in response to your request for additional information regarding our alternate packaging site supplement (Volume 21.1 and Volume 23.1) for EFIDAC/24® pseudoephedrine hydrochloride (240 mg).

As mentioned in my facsimile of 11 May, the \_\_\_\_\_ is supplied by \_\_\_\_\_ Attached is the product specification sheet provided by \_\_\_\_\_ In addition attached are the technical specifications and material safety data sheet for the \_\_\_\_\_ material supplied by \_\_\_\_\_.

If you need any additional information, please feel free to contact me at (415) 494-5022 or via facsimile at (415) 494-5050.

Sincerely,

*Harriet Benson for*

Harriet Benson, Ph.D.  
Vice President  
Regulatory Affairs