# CENTER FOR DRUG EVALUATION AND RESEARCH 

## Approval Package for:

## APPLICATION NUMBER: ANDA 72-354

Name: Desowen (desonide lotion) 0.05\%
Sponsor: Owen Laboratories
Approval Date: January 24, 1992

# CENTER FOR DRUG EVALUATION AND RESEARCH 

## APPLICATION NUMBER: ANDA 72-354

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## Reviews / Information Included in this Review

| Approval Letter | X |
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| Tentative Approval Letter |  |
| Labeling | X |
| Labeling Reviews | X |
| Medical Reviews | $\mathbf{X}$ |
| Chemistry Reviews | X |
| Bioequivalence Reviews |  |
| Statistical Reviews |  |
| Microbiology Reviews | X |
| Administrative \& Correspondence Documents |  |

# CENTER FOR DRUG EVALUATION AND RESEARCH 

## APPLICATION NUMBER: ANDA 72-354

APPROVAL LETTER

## Owen/Galderma

Attention: Ms. Christine E. Shank
6201 South Freeway
PO Box 6600
Fort Worth, TX 76115
Dear Madam:
Reference is made to your abbreviated new drug application dated November 25; 1987, submitted pursuant to Section 505(j) of the Federal Food, Drug, and Cosmetic Act for Desowen ${ }^{\text {R }}$ (Desonide) Lotion, 0.05\%.

We acknowledge receipt of your communications dated November 1, November 15, December 5 (two), December 13, 18, and 19, 1991 amending this application.

We have completed the review of this abbreviated application and have concluded that the drug is safe and effective for use as recommended in the submitted labeling. Accordingly, the application is approved. The Division of Anti-Infective Drug Products has reviewed your bioequivalence testing and has determined that the proposed drug product can be expected to have the same therapeutic effect as that of the listed drug (Desonide Cream of your firm).

Any significant change in the conditions outlined in this abbreviated application requires an approved supplemental application before the change may be made, except for changes made in conformance with other provisions of Section 314.70 of the Regulations.

Postmarketing reporting requirements for this abbreviated application are set forth in 21 CFR 314.80 and 314.81 of the Regulations.

This administration should be advised of any change in the marketing status of this drug.

For Initial campaigns: We request that you submit, in duplicate, any proposed advertising or promotional copy which you intend to use in your immediate advertising or promotional campaigns. Please submit all proposed materials in draft or mock-up form, not final print. Submit both copies together with a copy of the proposed or final printed labeling to the Division of Drug Marketing, Advertising and Communications (HFD-240). Please do not use Form FD-2253 (Transmittal of Advertisements and Promotional Labeling for Drugs for Human Use) for this initial submission.

For Subsequent Campaigns: We call your attention to Section 314.81(b) (3) of the Regulations which requires that materials for any subsequent advertising or promotional campaign, at the time of their initial use, be submitted to our Division of Drug Marketing, Advertising and Communications (HFD-240) with a completed Form FD-2253.

Sincerely yours,


Roger L. Williams, M.D.
Director
Office of Generic Drugs Center for Drug Evaluation and Research
CC: ANDA \#72-354

HFD-320/PVogel
HFD-650/Dighe
HFC-130/JAllen
HFD-634/MSmela/RTrimmer
HFD-632/RPollock/VVashioNadmion/23/a1
HFD-600/Reading File R/D initialed by MSmela 72354A06.lrt(apprltr)
F/T by jkg/12-23-91
Approval Letter!


# CENTER FOR DRUG EVALUATION AND RESEARCH 

## APPLICATION NUMBER: ANDA 72-354

LABELING



DESCRIPTION: DesOwenta Cream, Ointment and Lotion contain the topical corticosteroid desonide, a nonfluorinated corticosteroid. It has the chemical name: Pregna-1,4-diene-3.20-dione. 11,21 -dihy-
droxy-16,17-1(1-melhylelhylidene)bis $(0 x y)$ )(11 1,36 .16, $)$-: the molecular formula: $\mathrm{C}_{24} \mathrm{H}_{32} \mathrm{O}_{6}$ : molecular weight: 416.51: CAS-638-94-8. The struclural tormula is:


Each gram of DesOwen Cream contains 0.5 mg of butierefi wiche pH range of normal skin It contains propylene glycol, polysorbate 60 , emulsifying wax. isopropy' palmitate, stearic acid, synthetic beeswax. citric acid, sodium hydroxide, and purified water. II is preserver
sium sorbate. sium sorbate.
Each gram of DesOwen Ointment contains 0.5
mg of desonide in a base consisting of mineral oil and polyethylene.
Each gram of DesOwen Lotion contains 0.5 mg of desonide in a lotion vehicle consisting of sodium lauryl sulfate, light mineral oil. cetyl alcohol, stearyl
alcohol, propylene glycol, methyloaraben, propytparaben, sorbitan monoslearate, glyceryl stearate SE, edetate sodium, and purilied water. May conlain citric acid and/or sodium hydroxide for pH adjustment.
share anti-inllammatory, anti-pruritic, and vasoshare anstrictive actions.
chent
The mechanism of anti-intlammatory activity of the topical corticosteroids is unclear. Various laboratory methods. including vasoconstrictor assays,
are used to compare and predict potencies andior are used io compare and predict potencies andor
clinical elficacies of the topical corticosteroids. There is some evidence to suggest that a recognizable correlation exists between vasoconstrictor polency and therapeutic etficacy in man.
absorplion of topical corticosteroids is deternined by many lactors including the vehicle. the inmegrity of the epidermal barrier. and the use of occlusive dressings

1992
Orticosteroids can be absorbed from nor I skin. Infliammation andior other disease processes in the skin increase perculaneou absorption, occlusive dressings substantially


Once absorbed through the skin topical cortico steroids are handled through pharmacokinetic pathways similar to systemically administered corticosteroids. Corticosteroids are bound to
plasma proteins in varying degrees. Corticosteroids are metabolized primarily in the liver and are then excreted by the kidneys. Some of the topical corticosleroids and their metabolites are also no the bil
NDICATIONS AND USAGE: DesOwen (desonide) Cream $0.05 \%$ O Ontment $0.05 \%$ and Lotion $0.05 \%$
are indicated for the relief of the inflammatory and pruritic manilestations of corticosteroidresponsive dermatoses.
CONTRAINDICATIOHS: Topical corticosteroids are contraindicated in those patients with a history of
hypersensilivity to any of the components of the preparations.
PRECAUTIONS: General: Systemic absorption of opical corticosteroids has produced reversible hypothalamic-pituitary-adrenal (HPA) axis
suppression, manilestations of Cushing's syn suppression, manilestations of Cushing's syn
drome, hyperglycemia, and glucosuria in some patients.
Conditions which augment systemic absorption inciude the application of the more potent steroids. use over large surface areas, prolonged use, and he addition of occlusive dressings
Therefore, patients receiving a large dose of
potent topical steroid applied to a large surface area or under an occlusive dressing should be evaluated periodically for evidence of HPA axis Suppression by using the urinary free cortisol and
ACTH stimulation tests. If $H$ PA axis suppression is noted, an attempt should be made to withdraw the drug, to reduce the trequency of application, or to substitute a less polent steroid.
Recovery of HPA axis function is generally promp and complete upon discontinuation of the drug,
Infrequenty signs and symptoms of steroid withdrawal may occur, requiring supplemental systemic corticosteroids.
Children may absorb proportionally larger amounts of topical corticosteroids and thus be more suscepibie to systemic toxicily (See PRE If iritation develops topica
be discontinued and appropriate therapy instiluted.
In the presence of dermatological infections, the use ol an appropriate antifungal or antibacteria
agent should be instituted II a favorable response does nol occur promptly, the corticosteroid should be discontinued untid the infection has been ade
qualely controlied.

Intormation for the Patient: Patients using topica mation and instructions:

1. This medication is to be used as direcled by the physician. It is for external use only. Avoid contact with the eyes.
2. Patients should be advised not to use this med was prescribed.
3. The treated skin area should not be bandaged or otherwise covered or wrapped as to be ocel sive unless directed by the physician.
Patients should report any signs of local
adverse reactions especially under occlusive dressing.
4. Parents of pediatric patients should be advised not to use tight-fititing diapers or plastic pants of garments may constitute occlusive dressings.
Laboratory Tests: The following lests may be helpfut in evaluating the HPA axis suppression. ACTH stimulation test
cinogenesis. Mutagenesis, and impairment of Fe
tilily: Long-term animal studies have nol been pe formed to evaluate the carcinogenic potential or the effect on ferility of topical corticosteroids.
Studies to determine mulagenicity with predniso results.

Pregancy Caterory. Coricosteroids are generaly leratogenic in laboratory animals when adminis lered systemicaly a relatively low dosage levels. to be teratogenic after dermal application in labo ratory animals. There are no adequate and we controlled studies in pregant women on terato genic eliecis trom lopically applied corticosteroid during pregnancy only it the polential benefitils lifies the potential risk to the letus. Drugs of this class should not be used extensively on pregnan patienis, in large amounis or for protonged period of lime.
Nursing Molhers: It is not known whether topical administration of corticosteroids could result in able quantities in breast milk. Systemically admin istered corticosteroids are secreted into breas milk in quantities not likely to have a deleteriou effect on the infant. Nevertheless, caution shou administered to a nursing woman.
Pediatric Use: Pediatric patients may demonstrae greater susceptibility to topical conicosteroid induced HPA axis suppression and Cushing syndrome han mature panens because langer skin sum aic pity wergh ratio suppression, Cushing's syndrome, and intracran ial hypertension have been reported in childre receiving topical corticosteroids. Manilestions growth retardation, delayed weight gain low
asma cortisol levels, and absence of response to hypertension include bulging fontanelles, headaches, and bilateral papilledema.
Administration of topical corticosteroids to children hould be limited to the least amount compatible with an effeclive therapeutic regimen. Chronic corticosteroid herapy may interi
ADVERSE REACTIONS: The following local adverse eactions are reported infrequently with topical orticosteroids but may occur more frequently with the use of occlusive dressings. These reactions
are listed in an approximate decreasing order of ccurrence: burning. itching. irritation, dryness, folliculitis, hypertrichosis, acneilorm eruptions, hypopigmentation, perioral dermatitis, allergic ryinction skin maceralis striae and miliaria VERDOSAGE: Topically apolied corticosteroid eabsorbed in sufficient amounts to produce sysemic effects (See PRECAUTIONS).
DOSAGE AND ADMINISTRATION: DesOwens. ation $0.05 \%$ should be applied to the attected area as a thin film two or three times daily depend ing on the severity of the condition. SHAKE OTION WELL BEFORE USING.
Occlusive dressings may be used for the management of psoriasis or recalcitrant conditions.
ressings should be disconlinued and appropriale antimicrobial therapy instifuted.
HOW SUPPLIED:
DesOwen (desonide) Cream $0.05 \%$ is supplied in 15 g NDC $0299-5$
$15 \mathrm{~g} \mathrm{NDC} 0299-5770 \cdot 15$
60 g NDC
$0299-5770.60$
DesOwen (desonide) Ointment $0.05^{\circ} \%$ is supplied tubes containing:
$15 \mathrm{~g} \mathrm{NOC} \mathrm{O299-5775-15}$
60 g NO $029 \mathrm{~F}-\mathrm{s} 75$
(desonde) Lation $0.05 \%$ is supplied in botles containing:
2 F OZ NDC O299-5765-02
4 Fl OZ NOC $0299-5765-04$
Tlorage Condilions: Store below $86^{\prime \prime} \mathrm{F}\left(30^{\circ} \mathrm{C}\right)$. Avoid eezing.

Federal law prohibits dispensing without prescription.

## Marketed by:

Owen/GALDERMA
LABORATORISS. INC.
Fort Worth, Texas 76134
Mid. by: Dermatological
Products of Texas. Inc.
San Antonio. Texas 7829
San Antonio. Texas 78296
OWE registered trademarks.
26500-0390 Revised: March, 1990

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CAUTTON: Faderal law proribibs dispensing wilhout proscripition.
FOR TOPICCLL USE. NOT FOR OPHTHALMIC USE



## Mankelod ty:

Owen/GALDEBMA

 Iotion $0.05 \%$


FOR TOPACAL USE. NOT FOR
OPHTHALMIC USE. STORE BELOW $86^{\circ} \mathrm{F}$
( $30^{\circ} \mathrm{C}$ ), AVOID FREEZING. SHAKE WELL
BEFORE USING.
Usual dosage: Apply a small amount to affected areas 2 or 3 times daily
see package insert for complete
Cosring information
Contains: Active: desonide $0.05 \%$ w/w light mineral oil, cetyl atcohol stearyl
licomin rap
alcohol, propylene glyco, methyiparaben,
propylparaben, sorbitan monostearate.
puritied water May contain citric acid and/or
sodium hydroxide for pH adjustment.
Lot number and expiration date on bottorp
of bottie
Marketed by:
Owen/GALDERMA
LABORATORIES, INC. Fort Worth, Texas 76134 Mid. by: Dermatological Products of Texas, Inc. San Antorio. Texas 78296 OWEN and GALDERMA are registered trademarks 126496-0390

NDC 0299-5765-02


Iotion 0.05\%
CAUTION: Federal law protibitis CAUTION: Federal law prohibis
dispensing withoul prescription dispensing withoul

FOR TOPICAL USE. NOT FOR
OPHTHALMIC USE. STORE BELOW $86^{\circ} \mathrm{F}$
$\left(30^{\circ} \mathrm{C}\right)$, AVOUD FREEZING. SHAKE WELL
BEFORE USING
Usual dosage: Apply a small amount
to affected areas 2 or 3 times daily.
See package insert for complete
prescribing information.
Contains: Active: desonide $0.05 \%$ w/w ( $0.5 \mathrm{mg} / \mathrm{g}$ ). Inactive: sodium lauryl sulfate, fight mineral oil, cetyl alcohol, stearyl alcohol, propylene glycol. methylparaben
propylparaben, sorbitan monostearate.
glyceryl stearate SE, edetate sodium and
purified water. May contain citric acid and/or
sodium hydroxide for pH adjustment.
Lot number and expiration date on bottom of bottle.
Marketed by:
Owen/GALDERMA LABORATORIES, INC.
Fort Worth, Texas 76134 Fort Worth, Texas 76134 Mid. by: Dermatological San Antonio. Texas 78296 OWEN and GALDERMA are registered trademarks. 126496-0390

## JAN

NDC 0299-5765-02

lotion 0.05\%
CAuflon: Federatal law pronibibis CAution: Federal law prescription


OR TOPICAL USE. NOT FOR
OPHTHALMIC USE. STORE BELOW $86^{\circ} \mathrm{F}$
$30^{\circ} \mathrm{C}$ ), AVOID FREEZING. SHAKE WELL
BEFORE USING.
Usual dosage: Apply a small amount
0 affected areas 2 or 3 times dally.
see package insert for complete
prescribing information.
Contains: Active: desonide $0.05 \%$ w/w
$0.5 \mathrm{mg} / \mathrm{g}$. inactive: sodium lauryl sulfate
light mineral oil, cetyl alcohol, stearyl
alcohol, propyiene glycol, methylparaben
propyiparaben, sorbitan monostearate,
glyceryl stearate SE, edetate sodium and
purified water. May contain citric acid and/or sodium hydroxide for pH adjustment.
ot number and expiration date on botto $/ A$ of bottle.
Marketed by:
Owen/GALDERMA
ABORATORIES, INC.
Fort Worth. Texas 76134
Mfd. by: Dermatological
Products of Texas. Inc.
OWEN and GALDERMA
re registered trademarks.
126496-0390

NDC 0299-5765-02




FOR TOPICAL USE. NOT FOR OPHTHALMIC USE. STORE BELOW $86^{\circ} \mathrm{F}$
( $30^{\circ} \mathrm{C}$ ), AVOID FREEZING.
SHAKE WELL
BEFORE USING.
Usual dosage: Apply a
small amount to affected
areas 2 or 3 times daily. See
package insert for complete prescribing information.
Contains: Active: desonide
$0.05 \% \mathrm{w} / \mathrm{w}(0.5 \mathrm{mg} / \mathrm{g})$.
Inactive: sodium lauryl
sulfate, light mineral oil, cetyl alcohol, steary! alcohol, propylene glycol, methylparaben, propylparaben, sorbitan monostearate, glyceryl stearate SE, edetate sodium and purified water. May contain citric acid and/or sodium hydroxide for pH adjustment

## Marketed by:

Owen/GALDERMA
Laboratories. inc Lart Worth, Texas 76134 Mid. by: Dermatological
Producis of Texas, Inc.
San Anlonio, Texas 78296
OWEN and GALDERMA are registered trademarks. 110415-0390


CAUTION: Federal law protibits
CAUTION: Federaliaw
dispensing without prescription
IN 24 MOR

2 FL. OZ. ( 59 mL )

LOT:
EXPIRES:

FOR TOPICAL USE. NOT FOR
NDC 0299-5765-04
OPHTHALMIC USE. STORE BELOW
$86^{\circ} \mathrm{F}\left(30^{\circ} \mathrm{C}\right)$, AVOID FREEZING.
SHAKE WELL BEFORE USING.
Usual dosage: Apply a small amount to affected areas 2 or 3 times daily. See package insert for complete prescribing information.
Contains: Active: desonide $0.05 \% \mathrm{w} / \mathrm{w}$ ( $0.5 \mathrm{mg} / \mathrm{g}$ ). Inactive: sodium lauryl sulfate, light mineral oil, cetyl alcohol, stearyl alcohol, propylene glycol, methylparaben, propylparaben, sorbitan monostearate, glyceryl stearate SE, edetate sodium and purified water. May contain citric acid and/or sodium hydroxide for pH adjustment.
Lot number and expiration date on bottom of bottle.
Marketed by:

## Owen/galderma

LABORATORIES, INC.
Fort Worth, Texas 76134
Mfd. by: Dermatological
Mrd. by: Dermaiological
Products of Texas. Inc.
San Antonio, Texas 78296
OWEN and GALDERMA
OWEN and GALDERMA
are registered
126497-0390


SHAKE WÉLL BEFORE USING.
Usual dosage: Apply a small amount to affected areas 2 or 3 times daily. See package insert for complete prescribing information.
Contains: Active: desonide $0.05 \%$ w/w ( $0.5 \mathrm{mg} / \mathrm{g}$ ). Inactive: sodium lauryl sulfate, light mineral oil, cetyl alcohol, stearyl alcohol, propylene glycol, methylparaben, propylparaben, sorbitan monostearate, glyceryl stearate SE, edetate sodium and purified water.
May contain citric acid and/or sodium
hydroxide for pH adjustment.
Lot number and expiration date on bottom of bottle.
Marketed by:
Owen/GALDERMA
LABORATORIES, INC.
Fort Worth. Texas 76134
Mifd. by: Dermatotogical
Products of Texas, Inc.
San Antonio, Texas 78296
OWEN and GALDERMA
are registered trademarks
126497-0390


SHAKE WELL BEFORE USING.
Usual dosage: Apply a smail amount
to affected areas 2 or 3 times; daily.
See package insert for complete prescribing information.
Centains: Active: desonide $0.05 \% \mathrm{w} / \mathrm{w}$
( $0.5 \mathrm{mg} / \mathrm{g}$ ). Inactive: sodium lauryl sulfate, light mineral oil, cetyl alcohol,
stearyl alcohol, propylene glycol,
methylparaben, propylparaben, sorbitan
monostearate, glyceryl stearate SE,
edetate sodium and purified water.
May contain citric acid and/or sodium
hydroxide for pH adjustment.
Lot number and expiration date on bottom of bottle.
Marketed Izy:
Owen/GALDERMA
Laboratories. inc.
Fort Worth, Texas 76134
Mfd. by: Dermatological
Mid. by: Dermatological
Products of Texas. Inc.
San Antonio. Texas 78296
OWEN and GALDERMA
are registered trademarks.
126497-0390




FOR TOPICAL USE. NOT
FOR OPHTHALMIC USE. STORE BELOW $86^{\circ} \mathrm{F}$ ( $30^{\circ} \mathrm{C}$ ), AVOID FREEZING. SHAKE WELL BEFORE USING.

Usual dosage: Apply a small amount to affected areas 2 or 3 times daily. See package insert for complete prescribing information.

Contains: Active: desonide $0.05 \% \mathrm{w} / \mathrm{w}(0.5 \mathrm{mg} / \mathrm{g})$. Inactive: sodium lauryl sulfate, light mineral oil, cetyl alcohol, stearyl alcohol, propylene glycol, methylparaben, propylparaben, sorbitan monostearate, glyceryl stearate SE, edetate sodium and purified water. May contain citric acid and/or sodium hydroxide for pH adjustment.

## Marketed by:

Owen/GALDERMA
LABORATORIES, INC
Fort Worth, Texas 76134
Mid. by: Dermatological
Products of Texas, Inc.
San Antonio. Texas 78296
OWEN and GALDERMA are registered trademarks. 110416-0390


NDC 0299-5765-04

(desonide)
Iotion $0.05 \%$


NW 28 Bre
CAUTION: Federal law pronibits CAUtion: Feverara law pronibis
dispensing without rescription

Owen/GALDERMA

4 FL. OZ. (118 mL)

LOT:
EXPIRES:

# CENTER FOR DRUG EVALUATION AND RESEARCH 

APPLICATION NUMBER: ANDA 72-354

LABELING REVIEWS

ANDA
DRAFT
DATE OF REVIEW: December 24, 1987
ANDA \#: 72-354
NAME OF FIRM: Owen Labs
NAME OF DRUG: Trade: DesOwen Lotion, 0.05\%
Generic: Desonide Lotion, 0.05\%
DATE OF SUBMISSION: November 27, 1987
COMMENTS:
General Comment: Potency Statement: To Chemist
We question the expression of potency as a percent weight/weight. USP monographs for lotions of similar products express potency as a percent weight/volume. We feel that the formulation should also be expressed as a percent weight/volume. Please review and discuss with me.

Carton: Not Satisfactory

1. fl oz (rather than "Fl. Oz.")
2. Usual dosage - 2 or 3 times (rather than " 2 to 3 times")
3. Professional Samples Carton
"...86年 ( $30^{\circ} \mathrm{C}$ ). Avoid Freezing." (not ${ }^{(b)(4)}$ OF")

Container: Not Satisfactory
(2 fl oz, $4 \mathrm{fl} \mathrm{oz}, 8 \mathrm{~mL}$ Sample)

1. See A. 1. ( $2 \mathrm{fl} \mathrm{oz}, 4 \mathrm{fl} \mathrm{oz}$ )
2. See A. 2.

Insert: Not Satisfactory

1. CLINICAL PHARMACOLOGY (Pharmacokinetics) Paragraph 3, line 4 - Corticosteroids...
2. HOW SUPPLIED

Revise "Storage" statement to read, "Store below 860F (300C). Avoid Freezing."

RECOMMENDATIONS:

1. Inform the firm of the above comments.
2. Request the firm revise their labels and labeling. We cannot request final printed copy until the question regarding expression of potency has been resolved.
3. For The Record:

The "For topical use" phrase is used on labels of firm's other products. This statement is acceptable per discussion by G. Johnston and K. Johnson.
Hook Ehrnath
cc:
HFN-238
GJohnston/KJohnson/je/12-28-87
rel


Orig. Amendment
DRAFT
DATE OF REVIEW: June 28, 1988
ANDA \#: 72-354
NAME OF FIRM: Owen Labs
NAME OF DRUG: Trade: Desowen Lotion 0.05\%
Generic: Desonide Lotion $0.5 \%$
DATE OF SUBMISSION: June 6,1988
COMMENTS:
Carton: We question your content statement. Your composition statement lists citric acid and/or sodium hydroxide aspresent in the formulation. However, the carton labeling indicates that these components may be present. Please comment.

Container: See comment under carton labeling.
Insert: See comment under carton labeling.
RECOMMENDATIONS:

1. Inform the firm of the above comments.
2. We cannot request final printed copy until the issue regarding the composition has been resolved.
3. NOTE TO CHEMIST: Please review my comment to the firm and inform me if any change is required.


CC:
HFD-238


GJohnston/KJohnson/je/6-29-88 pl
7887A/ pg 8

## REVIEW OF PROFESSIONAL LABELING

## Orig. Amendment; DRAFT

DATE OF REVIEW: January 10, 1989
ANDA \#: 72-354 NAME OF FIRM: Owen Labs
NAME OF DRUG: Trade: Dis Owen Lotion Generic: Desonide Lotion 0.05\%

DATE OF SUBMISSION: November 28, 1988
COMMENTS:
Insert: Satisfactory

## RECOMMENDATIONS:

1. Inform the firm of the above comments.
2. Request the firm prepare and submit final printed container labels and carton labeling. We cannot request final printed insert labeling until your Bio data has been found satisfactory and we have had a chance for review and comment.
3. NOTE TO CHEMIST: If the Bio data has been found satisfactory prior to issuing an action letter, I will revise our request for FPL insert labeling.

## cc:

HFD-238


GJohnston/KJohnson/je/1-12-89
pl
8167A/pg 8

JWEN/GAZDERMA LAEETHESEHEEI
ande \#: 72354
Andan: $\qquad$ ANDAF: $\qquad$
FR̃OUCT NAME: DES OWENLQTTON (DESONIDE LOTION O. O5\%)
NDA' HOLDEF (S) : MILES PHARMACEUTICAGS CFOR CREAMY OINTMENT
 $0.05 \%$ );
LAEELING OF THE LISTED DRUG
DATE NOTED: FIRM:
NDAF: APFFOUAL DATE:
EEV DATE:

$$
\text { MICES } \begin{aligned}
& 17010 \\
& \hline \text { OWEN } \\
& \hline
\end{aligned}
$$

CONTAINEF: LAEELS:
AFFROVED COFY ON FILE? $Y$ COMIAENT USF CONTAINEF/CLOSUFE REQUIREMENTS: N/A
OTHER KEY ISSUES: DESSONIDE CREAM OR ONNMMNT IS NOTA USP RRODUCT
$\qquad$
$\qquad$

INSEFT LAEEL ING:
FATENT ISSUES: NONE $\qquad$
$\qquad$
EXCLUSIVITY ISSUES:_NONE

IO ISSMES: NONF

OTHEF KEY ISSUES: THE F/RM WAS USED DES DUNEN CRGAM AS THE REFER EACE DRUG $\angle O T G O$ SOBBNTER BY SETINION On Sogt 19 , $198 \%$

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SUMMAFY FOR AFFLICATION AFFFOOVAL:
CONTAINER LABELS: SATIS GACTVRY PER SUBMISSION OF
UPC A 5 -30-91.
CARTOMING: SAME AJFOR CINTANERLASENAABOVE.
$\qquad$
LAEELIMG CGHENTFUETHEF FEVISIOM: SAMEAS FOR CONTAINER LABELS,ABOVE THE FIRM HFS SUBMITTED COMMITMENTTO REFLECT MANUFACTURER /DISTRIBUTAR REIATIANSNP (5-30-91,
DATE: 7-24-91 $\qquad$ Ruveres Vajazanizumana
F:EVIEWER: : Jornby Thullipn-7/26 Ta।


# CENTER FOR DRUG EVALUATION AND RESEARCH 

APPLICATION NUMBER: ANDA 72-354

## CHEMISTRY REVIEWS

3. NAME AND ADDRESS OF APPLICANT

Owen Laboratories
Divisions of Dermatological Products of Texas, Inc.
6201 South Freeway
Fort Worth, Texas 76134
4. AF NUMBER

Waxman/Hatch
5. SUPPLEMENT(s)

Original 11/25/87
6. NAME OF DRUG

Desowen

## 7. NONPROPRIETARY NAME

8. SUPPLEMENT(s) PROVIDE(s) FOR:

Original submission of a new application
9. AMENDMENTS AND OTHER DATES:

12/11/87 New Correspondence (Type I DMF 1229 material not previously submitted.
10. PHARMACOLOGICAL CATEGORY

Anti-ínflammatory
11. HOW DISPENSED $\overline{\mathrm{R} X}$
13. DOSAGE FORM(s)

Lotion
14. POTENCY 0.05\%
15. CHEMICAL NAME AND STRUCTURE

Pregna-1,4-diene-3,20-dione, 11,21-dihydroxy-16,17-[(1-methylethylidene)bis (oxy)]-,(11 $\beta, 16)$

Formula: $\mathrm{C}_{24} \mathrm{H}_{32} \mathrm{O}_{6}$; molecular weight: 416.5

17. COMMENTS

505(J)(2)(A) information is satisfactory as per D. Rosen. Application found acceptable as per the petition process. See letter dated 9/10/87 (Dr. Reinstein). We await evaluation by Div. of Anti-Infectives of the vasoconstrictor study.
18. CONCLUSIONS AND RECOMMENDATIONS

Not approvable with deficiencies identified.
19. REVIEWER:

R/D INHIALED BY R.M. Pa
DATE COMPLETED:
5/1/88
R/D INITIALED BY R.M. Patel 5/11/88
$\qquad$

## ANDA 72-354 CHEMIST'S REVIEW FOR ANDA OR SUPPLEMENT

```
NAME AND ADDRESS OF APPLICANT:
Owens Laboratories
Div. of Dermatological Products of Texas, Inc.
Fort Worth, TX 76115
PURPOSE OF AMENDMENT/SUPPLEMENT
6-6-88 Draft labeling and manufacturing and control information
6-24-88 Samples sent to Dallas for methods validation
\(\frac{\text { PHARMACOLOGICAL CATEGORY }}{\text { Anti-inflammatory }} \frac{\text { NAME OF DRUG }}{\text { DesOwen }} \quad \frac{\text { HOW DISPENSED }}{\text { Rx }}\)
\(\frac{\text { DOSAGE FORM }}{\text { Lotion }} \quad \frac{\text { POTENCY }}{0.05 \%}\)
SAMPLES
We await methods validation as per Dallas District. Quality assurance
testing of nds is ok as per companion application 71-425.
RELATED IND/NDA/DMF
71-425
LABELING
Not satisfactory - See labeling review as per G.Johnston 6-28-88.
BIOLOGIC AVAILABILITY
Not satisfactory - Firm is to provide more information. See letter dated
July 1, 1988.
ESTABLISHMENT INSPECTION
Satisfactory as per D.Sylvia 1-6-88
COMPONENTS, COMPOSITION, MANUFACTURING, CONTROLS
Not satisfactory
Firm has submitted Certificates of Analysis for the raw materials used in the
drug product. Firm was requested to define the term "suitable" in the
manufacturing instructions. The revision submitted contains more specific
times and temperatures; the equipment is specified only by terms like round
bottom as more specific identification. Firm should name specific equipment
used.
PACKAGING
Satisfactory - See Chemist Review dated 5-17-88
```


## CHEMIST REVIEW PAGE 2

## STABILITY

Not satisfactory
Firm has submitted challenge condition stability data and cycling studies with a request for 18 months. Data are satisfactory. However, protocol should be revised to express test stations in months rather then weeks.

REMARKS AND CONCLUSION

r/d RPatel - 11-8-88

## ANDA 72-354 CHEMIST'S REVIEW FOR ANDA OR SUPPLEMENT

NAME AND ADDRESS OF APPLICANT:
Owen Laboratories
Div. of Dermatological Products of Texas, Inc.

Fort Worth, TX 76115
PURPOSE OF AMENDMENT/SUPPLEMENT
TT/28/88 Draft Tabeling and manufacturing and control information
11/:16/88 Bio Material
4/18/89 Bio material and FPL
$\frac{\text { PHARMACOLOGICAL CATEGORY }}{\text { Anti-inflammatory }} \cdot \frac{\text { NAME OF DRUG }}{\text { DesOwen }} \quad$ HOW DISPENSED

DOSAGE FORM
POTENCY
Lotion 0.05\%

SAMPLES
Methods validation is satisfactory as per Dallas District. Quality assurance testing of nds is ok as per companion application 71-425.

RELATED IND/NDA/DMF
71-425
LABELING
Not satisfactory - Request for FPL cannot be made until bio data have been found satisfactory as per G Johnston. see labeling review 1/10/89.

BIOLOGIC AVAILABILITY
Not satisfactory - Firm has provided more information. We await evaluation by Division of Anti-Infectives.

ESTABLISHMENT INSPECTION
Satisfactory as per D.Sylvia 1-6-88
COMPONENTS, COMPOSITION, MANUFACTURING, CONTROLS natsatisfactory
Firm has submitted Certificates of Analysis for the raw materials used in the drug product. Firm was requested to define the term "suitable" in the manufacturing instructions. The revision submitted contains more specific times and temperatures; the equipment is specified only by terms like round bottom as more specific identification. Firm should name specific equipment used. By amendment firm has identified equipment.

PACKAGING
Satisfactory - See Chemist Review dated 5-17-88

## CHEMIST REVIEW PAGE 2

## STABILITY

兩 satisfactory
Firm has submitted challenge condition stability data and cycling studies with a request for 18 months．Data are satisfactory．Protocol has been revised to express test stations in months rather then weeks．

REMARKS AND CONCLUSION
Not approvable
Brenda T．Arnwine fth：0009j 5／12／89

## 1. CHEMIST'S REVIEW $\ddagger 4$

## 2. ANDA 72-354

3. APPLICANT, Name/Address/Telephone:

Owen/Galderma Laboratories, Inc.
Attention: Christine E. Shank
Manager, Regulatory Affairs
6201 South Freeway
PO Box 6600
Fort Worth, TX 76115
Tel. 617-293-0450; Fax 817-551-8079.
6. PROPRIETARY NAME: DesOwen ${ }^{R}$ Lotion, $0.05 \%$
7. NON-PROPRIETARY NAME: Desonide Lotion, 0.05\%
9. AMENDMENTS and other DATES:
A. FIRM:

11-25-87 0 Application.
05-19-89 NC re NA letter of 5-15-89.
01-12-90 NC
03-26-90 Amendment re telecon of 3-12-90
05-30-90 Amendment ("NC") re telecon with Dr.S.Dugar.
08-17-90 Amendment
05-30-91 Amendment re FPL
08-09-91 Amendment re telecons of 8-7 \& 8th-1991.
08-14-91 Amendment re our conversation of $12,13 \& 14$
August.
B. FDA:

05-12-89 3rd (last) CR.
05-15-89 NA re Bioeq. \& labeling
07-26-89 Clinical Review by Div. of Anti-infective D.P.
03-12-90 Telecon by S.D. to Ms.C.Shank at Owen.
04-06-90 Telecon by S.D. to Ms.C.Shank
05-11-90 Telecon by S.D. to Ms.C.Shank
06-28-90 Telecon by R.T. to Ms.C.Shank
03-07-91 Info. letter re contract manufacturer
07-23-91 Satisfactory labeling.
08-07-91 Telecon re batch records \& stability data.
08-08-91 Telecon re low temp. (35 ${ }^{\circ}$ ) accelerated studies.
08-12-91 Telecon re manuf. of containers.
08-13-91 Telecon re subject of degradation products (DP).
08-14-91 Telecon re change of limits of DP from $\quad$ (b)(4) \%.
10. PHARMACOLOGICAL CATEGORY: Corticosteroid: anti-inflammatory
11. RX or OTC: $R_{x}$
12. RELATED ANDA/DMF's:

Desonide Cream (\#19-048) \& Desowen Ointment (\#71-425) Tridesilon ${ }^{\mathrm{R}}$ (innovator product)
13. DOSAGE FORM: lotion
14. POTENCY: $0.05 \%$
15. Chemical Name. 11,21-Dihydroxy-16,17-[(1methylethylidene) bis (oxy)]-(11B,16人) -pregna-1,4-diene-3,20dione. Also: Desfluorotriamcinolone Acetonide. $\quad \mathrm{C}_{24} \mathrm{H}_{32} \mathrm{O}_{6}$
17. COMMENTS.
$\mathrm{H}^{\circ}$
18. CONCLUSIONS and RECOMMENDATIONS: Approval
19. REVIEWER:

Robert W. Trimmer, Ph.D.
Branch II, Div. of Chemistry II, OGD
Date Started: 8-02-91 Completed: 8-15-91


RWT File \#72354R-4.RRT 72354A04.RRT
cls/08/22/91/d:72-354.REV

## 1. CHEMIST'S REVIEW $\ddagger 5$

2. ANDA 72-354
3. APPLICANT, Name/Address:

Owen/Galderma Laboratories, Inc.
Attention: Ms. Christine E. Shank
6201 South Freeway
Fort Worth, TX 76115
6. PROPRIETARY NAME: DesOwen ${ }^{R}$ Lotion, 0.05\%
7. NON-PROPRIETARY NAME: Desonide Lotion, 0.05\%
9. AMENDMENTS and Other DATES:
A. FIRM:

11-25-87 O Application.
B. FDA:

6/17-21/91 EI of Berm. Products of Texas facility.
10. PHARMACOLOGICAL CATEGORY: Corticosteroid: anti-inflammatory 11. Rx or OTC: $\mathbf{R}_{\mathrm{x}}$
12. RELATED ANDA/DMF's:

Desonide Cream (\#19-048) \& Desowen Ointment (\#71-425)
Tridesilon ${ }^{\mathrm{R}}$ (innovator product)
13. DOSAGE FORM: lotion
14. POTENCY: 0.05\%
17. COMMENTS.
A. Comments to be Included in the Action Letter:

During the FDA inspection of your production facilities, Dermatological Products of Texas, it was learned, among other things, that at least two of your test batches were filled and QC tested at an unreported plant in Fort Worth, Texas.

1. Please amend your application to includes all details of this previously unreported filling operation at the ALCON facilities including all equipment, container/closure systems utilized, complete test batch records which includes the filling process, etc.

Please be advised we await CGMP compliance status of the ALCON facilities.
2. Please submit the time limits for the various phases of production. This may be done on the master batch record.
3. Please note that your SOP \#108.1010 is considered too general. Please amend your application to include specific case procedures or withdraw said SOP and after approval of this ANDA you may supplement the application as per 21 CF 314.70 (b) (2) (x).
B. General Comments:

A Clinical-Consult to David Bostwick regarding this new pH range was found acceptable 2-8-1991.

A ${ }^{(b)(4)} \mathrm{kg}$ representative batch production record was submitted (max. future production size); "

The reason for the use of $35^{\circ}$ rather than $40^{\circ}$ for accelerated studies was stated, namely, that at $40^{\circ}$ the emulsion breaks down.

The following are our comments regarding the 483 items listed in the August 27th Memo to the Office of Generic Drugs. FDA 483 Items.
\#1\&2: The EI uncovered information showing that the bio batches AHE-1911 \& AIE-2059 were transferred to another plant (ALCON) for filling; this facility is not a part of the contract manufacturer of Dermatological Products of Texas (DPT) nor Owen/Galderma the applicant.

We agree this is a violation and will issue the applicant a NA letter requesting specific amendments to the filling issue and will issue an EER for the ALCON facility. See above \#17.A.
\#3: The EI questioned the use of $15-30^{\circ} \mathrm{C}\left(59-86^{\circ} \mathrm{F}\right)$ as controlled room temperature conditions and thinks the firm should do room temp. stability studies at the higher point, namely, $30^{\circ} \mathrm{C}$. They also question the accelerated conditions of $35^{\circ}$.
a. Since last spring we have been recommending 25-30 ${ }^{\circ}$ (USP $15-30^{\circ}$ ) for room temperature studies but do not reject studies that commenced before that time using $15-30^{\circ}$.
b. The accelerated studies were carried out at $35^{\circ}$ instead of the recommended $40^{\circ}$ as the applicant stated that at above $37^{\circ}$ the lotion breaks up. In lieu of the $40^{\circ}$ accelerated conditions we accepted two years data at room temperature.
c. The need to change recorder charts to the proper frequency and sign \& initial charts is a CGMP matter.
\#4: The EI report criticizes the firm for doing validation only on ${ }^{(b)(4)} \mathrm{kg}$ batches and questioning the validity of these results for scaling up to a ${ }^{(0)(4)} \mathrm{kg}$ batch. Time limits are also discussed.
a. The area of batch sizes falls within the OGD Guide \#22-90 allowing a ten fold scale-up from test batch. The applicant has agreed in writing to limit production scale-up to ${ }_{(0)(4)} \mathrm{kg}$.
b. We agreed to tell the applicant to set time limits for the various phases of production. See section \#17.A. above.
\#5: This involves rework procedures and we generally agree that specific rework procedures need to be in the application or supplemented after approval of said application. See \#17.A. above.
\#6: Compliance wants the firm to establish a correct sanitation procedure with validation data for equipment which is consistent with the firm's SOP - CGMP issue.
other points:
\#1.
The EI criticized the firm for the lowered pH formulation.
In the application we received a satisfactory Medical Consult for the change which change affords increased stability of the drug product and have satisfactory stability data. We ourselves requested this change.
\#2.
Compliance criticized the ${ }^{(b)(4)} \mathbf{k g}$ batch ticket but we have a commitment from the firm that ${ }^{(b)}(4) \mathrm{kg}$ will be their largest production batch size under the present approval package.
18. CONCLUSIONS and RECOMMENDATIONS: Not Approvable. MINOR Amendment.
19. REVIEWER:

Robert W. Trimmer, Ph.D. Date Started: 10-15-91
Branch II, Div. of Chemistry I, OGD Completed: 10-16-91
cc: ANDA 72-354 icri8-199
72-354 /Division File 72-354/Dup HFD-634/RTrimmer

MEMORANDUM

# Department of Health \& Human Services Public Health Service <br> Food and Drug Administration <br> Center for Dreug Evaluation and Research 

Date: October 16, 1991
Subject: Comments for EIR of 6/17-21/91 (ANDA 72-354):
Dermatological Products of Texas
San Antonio, TX
Applicant:
Owen/Galderma Laboratories, Inc.
6201 South Freeway
Fort Worth, TX 76115
Drug Product:
DesOwen ${ }^{\text {R }}$ Lotion, 0.05\%
See FDA 483 Items in the Report of August 27, 1991
To: HFD-320
Through David Doleski
Attention: Ann L. deMarco
The following are our comments regarding the 483 items listed in the August 27th Memo to the Office of Generic Drugs.

FDA 483 Items.
\#1 \& 2:
The EI uncovered information showing that the test batches AHE-1911 \& AIE-2059 were transferred to another plant (ALCON) for filling; this facility is not a part of the contract manufacturer of Dermatological Products of Texas (DPT) nor Owen/Galderma the applicant.

We agree this is a deficiency in the ANDA and will issue the applicant a NA letter requesting specific amendments to the filling issue and will issue an EER for the ALCON facility.
\#3:
The EI questioned the use of $15-30^{\circ} \mathrm{C}\left(59-86^{\circ} \mathrm{F}\right)$ as controlled room temperature conditions and thinks the firm should do room temp. stability studies at the higher point, namely, $30^{\circ} \mathrm{C}$. They also question the accelerated conditions of $35^{\circ}$.
a. Since last spring we have been recommending 25-30 ${ }^{\circ}$ (USP $15-30^{\circ}$ ) for room temperature studies but do not reject studies that commenced before that time using $15-30^{\circ}$.
b. The accelerated studies were carried out at $35^{\circ}$ instead of the recommended $40^{\circ}$ as the applicant stated that at above $37^{\circ}$ the lotion breaks up. In lieu of the $40^{\circ}$ accelerated conditions, we accepted two years data at room temperature.
c. The need to change recorder charts to the proper frequency and sign \& initial charts is a CGMP matter.
*4:
The EI report criticizes the firm for doing validation only on (b) (4) kg batches and questioning the validity of these results for scaling up to a ${ }^{(0)(4)} \mathrm{kg}$ batch. Time limits are also discussed.
a. The area of batch sizes falls within the OGD Guide \#22-90 allowing a ten fold scale-up from test batch. The applicant has agreed in writing to limit production scale-up to ${ }^{(0)(4)} \mathrm{kg}$.
b. We agree to tell the applicant to set time limits for the various phases of production in our NA letter.
\#5:
This involves rework procedures and we generally agree that specific rework procedures need to be in the application or supplemented after approval of said application and shall so indicate in our NA letter.
\#6:
The investigators want the firm to establish a correct sanitation procedure with validation data for equipment which is consistent with the firm's SOP. This is a CGMP issue.

Other points:
\#1.
The investigators criticized the firm for the lowered pH formulation.

We received a satisfactory Medical Consult for the change which change affords increased stability of the drug product and have received satisfactory stability data on the drug product with the lower pH . We ourselves requested this change.
\#2.
The investigators criticized the ${ }^{(b)(4)} \mathrm{kg}$ batch ticket but we have a written commitment from the firm that ${ }^{\text {(b) (4) }} \mathrm{kg}$ will be their largest production batch size under the present approval package.

Robert Trimmer
Review Chemist Branch II, OGD

Michael Smela
Branch Chief
Branch II, OGD

## 1 .

## CHEMIST'S REVIEW 16

## INDA 72-354

3. APPLICANT, Name/Address/Telephone/Fax:

Owen/Galderma Laboratories, Inc.
Attention: Ms. Christine E. Shank
6201 South Freeway
Fort Worth, TX 76115
Tel. 817 293-0450 or 551-8516; Fax 817 551-8079

## 6. PROPRIETARY NAME: DesOwen ${ }^{R}$ Lotion, 0.05\%

7. NON-PROPRIETARY NAME: Desonide Lotion, 0.05\%
8. AMENDMENTS and Other DATES:
A. FIRM:

11-25-87 O Application.
*11-01-91 Amendment
*11-15-91 Amendment
*12-05-91 Amendment from Owen w 15th mo. stability.
12-06-91 Telecon of clarification: Owen will make clear container/closure descriptions $\qquad$ ${ }^{(6)}$ correspond with description in Package Specs, Ms. Shank will consolidate stab. data, \& will contact supplier for data for USP tests.
*12-13-91 Amendment with USP data.
*12-18-91 Fax Amendment with time limits.
*12-19-91 Amendment with (b) (4) information.
B. FDA:

06-17-91 EI of Derm. Products of Texas facility.
11-08-91 Telecon to our San Antonio, TX office: J.Davis.
11-14-91 Telecon to Owen re ALCON facilities.
11-15-91 Telecon from Owen re ALCON facilities.
11-26-91 Telecon requesting stability data for new test batches.
12-05-91 NC Telecon stating 15th mo stab. data sent via Fax; I told of need yet for time limits info \& need for COA's for c/c from DPT \& USP tests - Biol. Reactivity Test as per 21 CFR 211.84.
12-05-91 EI found acceptable.
10. PHARMACOLOGICAL CATEGORY: Corticosteroid: anti-inflammatory
11. Rx or OTC: $\mathbf{R}_{\mathbf{x}}$
12. RELATED ANDA/DMF's:

Desonide Cream (\#19-048) \& Desowen Ointment (\#71-425)
Tridesilon ${ }^{\text {R }}$ (innovator product)
DMF \#1229 Type I for DPT, Inc. of San Antonio, TX.
13. DOSAGE FORM: lotion
14. POTENCY: $0.05 \%$
17. COMMENTS.
A. Comments to be Included in the Action Letter:

For Approval
B. General Comments:

1. A Clinical-Consult to David Bostwick regarding this new pH range was found acceptable 2-8-1991 for the revision in pH specification from
2. $A$ (b) (4) kg representative batch production record was submitted (max. future production size).
3. The reason for the use of $35^{\circ}$ rather than $40^{\circ}$ for accelerated studies was stated, namely, that at $40^{\circ}$ the emulsion breaks down. I would recommend granting an 18 month expiration dating based on this data alone; a 15th month station was submitted to this point on the new bio batch and 24 months on the old bio batches (old $=$ batches were the drug product was filled by an unauthorized facility, namely Alcon).
4. Satisfactory USP testing of the containers which testing included section <87> submitted 12-13-91.
5. This application was previously AP pending EI then consequently found deficient in the 483. Since the 483 the issues have been resolved.
C. Comments concerning the Last NA Letter (483 related): 1. "During the FDA inspection of your production facilities, Dermatological Products of Texas, it was learned, among other things, that at least two of your test batches were filled and QC tested at ar. unreported plant in Fort Worth, Texas. Please amend your application to includes all details of this previously unreported filling operation at the ALCON facilities including all equipment, container/closure systems utilized, complete test batch records which includes the filling process, etc.

Please be advised we await CGMP compliance status of the ALCON facilities.
Response to \#1: siatisfactory.
Two of the batches identified in the ANDA (\#AIE-2059 and AHE-1911) were filled and tested at Alcon Labs and were done basically to see if Alcon could handle such a operation.

Since the applicant has stated there will no involvement at all with the Alcon facilities we are to look now at just Dem. products of Texas, Inc. (DPT) manufactured test batches:

Three new test batches were produced of ${ }^{(b)(4)} \mathrm{kg}$ each, using the in-process pH adjustment outlined August 17, 1990, using (DPT) production scale equipment which included filling equipment and DPT quality control testing. These three batches are considered representative standards for the commercial production of the drug product. See section \#25.

The applicant certified that there will be no utilization of the ALCON facilities for post-approval manufacture or quality control for the commercial product (11-15-91).
2. Please submit the time limits for the various phases of production. This may be done on the master batch record. Response to Comment \#2 re time limits: Satisfactory. Amendment of 12-18-91 incorporated requested time limitations for the different production phases.
3. Please note that your SOP \#108.1010 is considered too general. Please amend your application to include specific case procedures or withdraw said SOP. After approval of this ANDA, you may supplement the application for reprocessing a batch of the drug product as per 21 CF 314.70 (b) (2) (x)".

Response to \#3: Satisfactory.
The applicant made a commitment that no reprocessing of any batch will be performed without prior approval of a supplement to the application.
18. CONCLUSIONS and RECOMMENDATIONS:

Approval. A min. 18 mo expiration dating is recommended based on previous satisfactory 24 mo RT (old bio batches), accelerated studies of 3 months at $35^{\circ}+$ cycle studies at $4^{\circ}$ to $35^{\circ}$.
19. REVIEWER:


Robert W. Trimmer, Ph.D.
Branch II, Div. of Chem. I, OGD


Date Started: 11-16-91
Completed: 12-18-91

CC: ANDA 72-354
72-354 /Division File
72-354/Dup
HFD-634/RTrimmer
$\tau$


# CENTER FOR DRUG EVALUATION AND RESEARCH 

APPLICATION NUMBER: ANDA 72-354

# Consultative Review of Clinical Protocol 

[^0]Sponsor: Owen Laboratories
Forth Worth, Texas 76134
Product: DesOwen (desonide) Lotion, 0.05\%

## Formulation: Not provided

Indication: Corticosteroid-responsive dermatoses
Date of Submission: November 25, 1987
Background: DesOwen Lotion has been found to be eligible for submission of an Abbreviated NDA (ANDA) through an ANDA suitability petition. In order for the ANDA to be approved, it is necessary that two studies be performed; a vasoconstrictor protocol and a small clinical study in patients with diseased skin to establish that the ANDA formulation is bioequivalent to the reference product (in this case, DesOwen Cream 0.05\%, which is the subject of the approved NDA 19-048). The ANDA sponsor has submitted protocols for both studies for comment prior to initiation of the studies.

## Proposed Clinical Studies:

1. Vasoconstrictor Assay

The vasoconstrictor assay is to be performed by Dr. R. B. Stoughton in volunteer subjects. The protocol is a standard one and is satisfactory.
2. Bioequivalency Protocol

The investigator for this study will be H.I. Katz, M.D. Dr. Katz's qualifications have not been provided.
A. Study design: This is an investigator-blinded, randomized, paired comparison of DesOwen Cream and DesOwen Lotion in 36 patients with bilateral eczema.
B. Patient selection: Males and females with a minimum age of 6 with varying degrees of bilateral eczema which could normally be treated with low-potency topical steroids.
C. Treatment regimen: The medications are to be applied to affected areas three times daily. One medication will be applied to the left side of the body and the other to the right side. Medications will be color-coded (left side blue and right side yellow). The study is to continue for three weeks with four investigator evaluations; one prior to therapy and weekly thereafter.
4. Effectiveness parameters: Patients will be evaluated for erythema, scaling, excoriations, pruritus, oozing/weeping, and overall severity on a scale of 0-9 as follows:
$\frac{\text { Clear }}{0} \quad \frac{\text { Mild }}{1,2,3} \quad \frac{\text { Moderate }}{4,5,6} \quad \frac{\text { Severe }}{7,8,9}$

Evaluation: This protocol presents two major difficulties: the choice of eczema as the disease to be treated, and the choice of a paired comparison methodology.

Topical steroids are normally required to show effectiveness in both atopic dermatitis and psoriasis prior to approval. If only one clinical study is to be performed, the more difficult indication (psoriasis) should be studied, since a product which is effective against psoriasis may be expected to also be effective against atopic dermatitis. On the other hand, effectiveness against atopic dermatitis does not necessarily indicate that a product will be useful in psoriasis.

In addition, parallel groups of patients should be studied (one group on cream, and the other on lotion). Use of the paired comparison technique greatly increases the chance of medication mix-up, especially if the patients themselves are to apply the drugs.

It is also felt that a global evaluation should be performed according to a scale of improvement from baseline (rather than the overall severity score on a scale of $0-9$ as proposed by the sponsor). The global evaluation is intended to view the improvement of the patient over the length of therapy. The overall severity score would essentially reevaluate signs and symptoms which have already been evaluated individually.

A small vehicle group should also be included in order to assess the clinical effect of the excipients in the formulation.

Recommendation: The following general protocol is an example:
The study should be an investigator-blinded comparison of DesOwen Cream (20 patients), DesOwen Lotion (20 patients) and lotion vehicle (10 patients). Parallel groups of patients with psoriasis are to be entered into the study for each treatment group in a randomized fashion. The patients should be comparable in terms of disease state, demographic characteristics, etc. The study should run for three weeks. Drug applications are to be three times daily with investigator evaluations prior to therapy and weekly thereafter.

The effectiveness parameters proposed by the sponsor are satisfactory, except that the "overall severity" rating of signs and symptoms should be replaced by a global evaluation using the foll lowing scale:

1 = "Cleared" - $100 \%$ clearance of signs, except for residual discolorations.

2 = "Marked Improvement" - between 76\% and 99\% clearance of signs monitored.
$3=$ "Moderate Improvement" - 50\% to $75 \%$ clearance of signs monitored.
$4=$ "Slight Improvement" - less than $50 \%$ clearance of signs monitored.
$5=$ "No Change" - no detectable improvement from pretreatment (baseline) evaluation.

6 = "Exacerbation" - flare of sites monitored.

## Data Reporting:

Data should be reported both in terms of weekly results and in terms of "endpoint"; that is, one set of data should view all patients at the last valid treatment visit. The endpoint evaluation is the best method of assessing the effect of patient dropouts. Signs and symptom scores should be reported individually and as a total score. Global evaluation should be reported as noted above. The qualifications of the investigator and the complete formulation of each test material should be submitted.

## Conclusion:

The proposed clinical protocol is not acceptable. Changes have been suggested.


## cc:

Orig ANDA
HFD-520
HFD-340
HFD-520/CCEvans
HFD-520/DCBostwick/11m/5/7/88 4018 m

# Clinical Review of ANDA <br> (referred by Division of Generic Drug, HFD-230) 

Sponsor: Owen Laboratories
Fort Worth, Texas
Product: DesOwen (desonide) Lotion, 0.05\%

## Formulation:



Indication: Corticosteroid-responsive dermatoses.
Dates of Submission: June 6, 1988 (vasoconstrictor study). April 18, 1989 (clinical bioequivalence study).

Background: Please see our previolis review of this ANDA dated April 20, 1988. This product represents a line extension (new formulation) for an already approved topical steroid which was first marketed after 1962. Under these conditions, two studies are necessary for approval of an ANDA: a vasoconstrictor,assay and a limited clinical study in patients with psoriasis. In this case, the reference drug is DesOwen Cream 0.05\% (NDA 19-048).

## Clinical Studies:

A. Vasoconstrictor assay.

Investigator: Richard Stoughton, M.D. La Jolla, California

Method: Thirty healthy adults (16 males, 14 females) were entered into the study.

Three test materials were used: DesOwen Lotion, 0.05\%, DesOwen Cream, 0.05\% and the DesOwen Lotion vehicle. Each subject was treated with each test material on each forearm, giving a total of six treatment sites per subject. Each site was approximately 3 cm in diameter, with 35 mg . of each test material being used. All applications and readings were double-blind.

The test sites were protected by a nonocclusive plastic guard for $16-20$ hours. The sites were then washed and readings for vasoconstriction taken one hour later. The degree of vasoconstriction was read according to the following scale:

$$
\begin{aligned}
& 0=\text { no pallor } \\
& 1=\text { mild pallor } \\
& 2=\text { moderate pallor } \\
& 3=\text { maximum pallor }
\end{aligned}
$$

Results: Since both arms were used, there are twice as many readings as patients.

Number of Patients per Blanching Score

| Product | 0 | 1 | 2 | 3 | Mean | Total Patients |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| DesOwen Lotion | 4 | 19 | 28 | 9 | 1.7 | 30 |
| DesOwen Cream | 3 | 20 | 27 | 10 | 1.7 | 30 |
| Vehicle | 52 | 7 | 0 | 1 | 0.2 | 30 |

These data indicate that DesOwen Lotion and Cream are equivalent in their vasoconstrictor activity.
B. Comparison of DesOwen Lotion, DesOwen Cream and Lotion Vehicle in Psoriasis.

Investigator: Alan Greenspan, M.D.
TKL Research, Inc. Maywood, N.J. 07607

Method: This was a double-blind parallel-group comparison of DesOwen Lotion, DesOwen Cream and the lotion vehicle in patients with mild to moderate psoriasis. Thirty patients were entered into each active treatment group and twenty were entered into the vehicle group on a random basis. The patients were males and females aged 20-77 years. The patients had not been on any interfering topical medication for 7 days prior to initiation of therapy.

The study was three weeks in length with evaluations made at baseline and weekly thereafter.

The disease was evaluated for erythema, scaling, induration and pruritis on a scale of 0 to 9 as follows: clear (none) $=0$; mild $=1,2,3$; moderate $=4,5,6$; and severe $=7,8,9$. In addition, a global evaluation was made to assess the overall improvement/exacerbation of the disease at all affected sites. This global evaluation was made at Weeks 1, 2 and 3. The following grading system was used: $1=$ clear; $2=76-99 \%$ improvement; $3=50-75 \%$ improvement; $4=<50 \%$ improvement; $5=$ exacerbation of the disease. The following list of definitions was used in grading the signs and symptoms.

## Erythema

Mild: Faintest-detectable erythema; very light-pinkish color.
Moderate: Very distinguishable, dull redness.
Severe: Deep, intense, beefy-red color.
Scaling
Mild: Barely-perceptible shedding, noticeable only on light scratching.

Moderate: Obvious but not profuse; some scales adhering to clothing.

Severe: Heavy scale production, obvious shedding upon removal of clothing with imbedding of scales in clothing; profuse shedding.

## Induration

Mild: A slight hardening or firmness of the tissue at the site of psoriatic plaque.

Moderate: Marked hardening of the tissue at the site of a psoriatic plaque; a thickened feel.

Severe: Gross hardening of the tissue at the site of a psoriatic plaque; feels like a lump on the skin.

## Pruritus

Mild: Occasional, slight itching; not really bothersome.
Moderate: Constant or intermittent itching; itching that is somewhat bothersome; may or may not require treatment for relief of symptom.

Severe: Bothersome inding that has caused patient to obtain treatment for Yelief. Excoriations of the skin from scratching.

Safety was determined at the end of therapy by the investigator and patient. Safety is defined as stinging/burning and general irritation. The investigator assessed safety visually and through patient interview.

Results: Eighty patients entered the study and were analyzed for safety. Nine patients failed to finish the study. Five discontinued for "personal reasons". Two patients in the placebo group quit because of exacerbation of their disease. One patient was a protocol deviation and the last was hospitalized for an unrelated back injury. We will analyze the data both in terms of those patients who completed the study and in terms of the last valid patient visit (endpoint analysis).

1. Signs and symptoms
a. Erythema

Average Scale Readings and \% Reduction

| Test Product | Baseline | Week 1 | Week 2 | Week 3 | Endpoint |
| :--- | :--- | :--- | :--- | :--- | ---: |
| DesOwen Cream | 3.80 | $3.14(17 \%)$ | $2.79(27 \%)$ | $2.70(29 \%)$ | $2.67(30 \%)$ |
| DesOwen Lotion | 3.63 | $3.26(10 \%)$ | $2.63(28 \%)$ | $2.63(28 \%)$ | $2.70(26 \%)$ |
| Vehicle | 4.00 | $3.72(7 \%)$ | $4.00(0 \%)$ | $3.93(2 \%)$ | $4.20(+5 \%)$ |

b. Scaling

Average Scale Readings and \% Reduction

| Test Product | Baseline | Week 1 | Week 2 | Week 3 | Endpoint |
| :--- | :--- | :--- | :--- | :--- | :--- |
| DesOwen Cream | 4.37 | $2.83(35 \%)$ | $2.75(37 \%)$ | $2.44(44 \%)$ | $2.40(45 \%)$ |
| DesOwen Lotion | 4.63 | $2.85(38 \%)$ | $2.19(53 \%)$ | $2.15(54 \%)$ | $2.27(51 \%)$ |
| Vehicle | 4.75 | $3.67(23 \%)$ | $3.37(29 \%)$ | $3.47(27 \%)$ | $3.65(23 \%)$ |

c. Induration

|  | Average Scale Readings and \% Reduction |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| Test Product | Baseline | Week 1 | Week 2 | Week 3 | Endpoint |  |  |
| DesOwen Cream | 3.67 | $2.86(22 \%)$ | $2.61(29 \%)$ | $2.67(27 \%)$ | $2.57(30 \%)$ |  |  |
| DesOwen Lotion | 4.10 | $3.19(22 \%)$ | $2.74(33 \%)$ | $2.41(41 \%)$ | $2.53(30 \%)$ |  |  |
| Vehicle | 4.15 | $3.89(6 \%)$ | $3.71(11 \%)$ | $4.07(2 \%)$ | $4.10(1 \%)$ |  |  |

d. Pruritus

## Average Scale Readings and \% Reduction

| Test Product | Baseline | Week 1 | Week 2 | Week 3 | Endpoint |
| :--- | :--- | :--- | :--- | :--- | :--- |
| DesOwen Cream | 3.33 |  | $1.72(48 \%)$ | $0.93(72 \%)$ | $0.79(77 \%)$ |
| DesOwen Lotion | 3.23 | $1.37(58 \%)$ | $0.89(72 \%)$ | $0.69(79 \%)$ | $0.93(78 \%)$ |
| Vehicle | 3.55 | $2.50(30 \%)$ | $1.93(46 \%)$ | $2.40(32 \%)$ | $2.65(25 \%)$ |

2. Global assessment. We will present data for the end of the study only.

Week 3 Global Evaluation (Number of Patients and \% of Total)

| Test Product | $76-99 \%$ <br> Improvement | $50-75 \%$ <br> Improvement | $50 \%$ <br> Improvement | Exacerbation |
| :--- | :--- | :--- | :--- | :--- |
| DesOwen Lotion | $10(37 \%)$ | $6(22 \%)$ | $9(33 \%)$ | $2(7 \%)$. |
| DesOwen Cream $-7(26 \%)$ | $9(33 \%)$ | $11(41 \%)$ | 0 |  |
| Vehicle | 0 | $3(20 \%)$ | $9(60 \%)$ | $3(20 \%)$ |

3. Safety Evaluation: In addition to the two placebo patients noted above who suffered exacerbation of their disease, one patient on the Cream formulation reported intense erythema following the initial application of the drug. This resolved with no further consequences.
4. Effectiveness Evaluation: This study establishes that DesOwen Lotion and DesOwen Cream are comparable in their clinical effect. Both products are superior to the vehicle for the lotion. Differences between the active products are not statistically significant.

Recommendation: The vasoconstrictor assay and clinical study in psoriasis establish that DesOwen Lotion is clinically bioequivalent to the previously approved DesOwen Cream. We have no objection to the approval of this ANDA.


David C. Bostwick Chemist

C. Carnot Evans, M.D.
 Group Leader/DERM

Clinical Review of Amendment
(Referred by Division of Generic Drugs, HFD-630)

Sponsor: Owen Laboratories
Fort Worth, TX
Product: DesOwen (desonide) Lotion, 0.05\%
Indication: Corticosteroid - responsive dermatoses
Date of Submission: August 17, 1990
Background: This ANDA was approved in 1990. The sponsor has determined that the finished dosage form is more stable at a pH between ${ }^{(b)}(4)$ than the ${ }^{\text {(b) (4) }}$ range which was originally approved. The Division of Generic Drugs is reviewing an amendment to the ANDA which would change the acceptable pH range to ${ }^{(b)}(4)$ They have the following questions:

1. Would a lotion manufactured at the lower pH range be acceptable on the skin?
2. Would the efficacy of the lotion be adversely impacted at such pH levels?

Material Reviewed: Standard references state that the pH of normal skin is in the range of 4.0-7.0. Many topical lotion formulations have pH ranges lower than that proposed for DesOwen Lotion. Examples are which has a pH range of ${ }^{(0)}{ }^{(4)}$; and (b) (4)

Neither of these applications exhibited unusual adverse reactions in clinical testing which might be attributable to low pH . Therefore, it is not expected that a lotion which has a pH range of $\quad{ }^{\text {(b)(4) }}$ would be unacceptable to the skin.

Further, there is no reason to expect the effectiveness of the product would be changed or compromised by this relatively minor pH revision.

Conclusions and Recommendations: There is no objection to a revision in the pH specification for DesOwen Lotion from


Orig ANDA 72-354
cc: HFD-340 HFD-520
HFD-520/DCBostwick HFD-520/WChambers HFD-520/RCook HFD-520/Alam HFD-520/WDeCamp


# CENTER FOR DRUG EVALUATION AND RESEARCH 

APPLICATION NUMBER: ANDA 72-354

## ADMINISTRATIVE and CORRESPONDENCE DOCUMENTS



Dosomile

COMPLETE FOR SUPPLEMENT ONLY
CHANGE APPROVED TO PROVIDE FOR

FORM FD $1642(2 / 75)$
PREVIOUS EDITION MAY EE USED UNTIL SUPPLY IS EXHAUSTED.

## AND ACTION LETTER ROUTING RECORD



Original Rec＇d Date Amendment Date（s）
$\frac{11-27-57}{121-51 \cdot \sin 14 \%}$
 Supervisor $\frac{P_{0}+i / c, m, l}{C o n t i n} k$


$5 / 50 \%$ $818 y_{1}$

## REVIEWER：

1．R．Pollock，M．S Chief，Program Support Staff Comments：


RECEIPT
Date $12 / 20 / 51$ Initials

ACTION


81414 $8 / i 4 k$ $11 / 1 / 4$
$12 / 3 / 4$
121014

2．S．Dight，Ph．D．
Date $12 / 30 / 91$
Date $12 / 30191$ 沙洛 Director，Bioequivalence

Initials 8\％
Initials sn
ANDA（72－354）comments：The firm＇s ANDA suitability petition was approved in 1987 ．Th

 want tiv Mrutacture the product at－pH（b）（4）The Div，of AntiIntective mors Products has deter－ stud is appropriate．K．Johnson，M．S． anted．Associate Director Office of Generic Drugs Comments：
Labeling is satistriter

## Date

$\qquad$

Date 12／30／91
Date $12 / 3 \mathrm{~A}$ a
4．Director of Chem．I Office of Generic Drugs

Initials RR
Initials／2\＆ Comments：The CGMP issues die resolved．From the contras view point this Amman is satiefretory for approval $\rightarrow$ the Latin dusese form．

5．R．Jerussi，Ph．D． Office Level OGD Review （if necessary）Yes X No＿ Comments：

See $/ 122 / \sqrt{2}$ moro．
Date
Initials O．K－for approval．
0 ．Controls o．k．

Date $1 / \mathrm{ral} / 92$ Date $1 / 24 / 92$
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2 studies（vasoconstrictor assay ${ }^{*}$
Bio wacifd．Firm conducted ecsemer patient＞to show safe $t$ effective．
7．R．Williams，M．D．
Director
Office of Generic Drugs Comments：

Initials $\qquad$
 o．k． for a laturi 1
6．Office Level Bio Review Comments：


Date 1／24
Date
Initials


LETTER SIGNED：


Christine Shank, Owen/Galderma and
RA Jerussi, OGD
Subject: ANDA 72-354, Desonide Lotion 0.05\%
I spoke to Ms. Shank about two items:

1. This application has as a spec for the desonide drug substance, residue on ignition of ${ }^{(b)(4)}$ whereas the previously approved ANDA 71-425 for desonide ointment $0.05 \%$ seemed to have a spec of ${ }^{(0)(4)}$ (in the original submission). I was concerned which was correct. She indicated that the ${ }^{(b)(4)}$ was but we both searched and spoke again. On page 0019 of the original submission for $71-425$ it was listed as ${ }^{(0)(4)}$ and therefore was listed twice with two different values. However, I disocvered Report 07 dated $6 / 89$ which had it listed as ${ }^{(b)(4)}$ which she said is the spec.
2. The specifications for the desoniude drug substance do not contain a test for organic volatile impurities. However, the vendors test the product for (b)(4) and for batch 109023 found $\quad{ }^{(b)(4)}$ I pointed this out to Ms. Shank. This data is on page 0015 of the origianl application so I was not revealing confidential information. I strongly urged her to get her firm to set limits for these (b) (4) solvents and said that the amount of $\quad{ }^{(0)(4)}$ is rather high nd perhaps they should reduce it. This would be true for 71-425 also and for all their NDSs. Limits for solvents are now in the USP and FDA has set some limits for $\quad{ }^{(b)(4)}$ solvents. Its about time the firm got with it. I said this could be done without a supplement since it is adding a spec.
ge:
$\begin{array}{rlll}\text { AND } & 72-354 & \text { Orig. } \\ \text { " " } & \text { " } & \text { Dup/Div. File } \\ \text { AND } & 71-425 & \text { Orig. } & \\ \text { " " " } & \text { " } & \text { Dup/Div. File }\end{array}$
Dr. Trimmer, HFD-600
M. Smela,

Dr. Patel,
Dr. Jerussi, " "

Robert A. Jerussi,Ph.D.


$\frac{\text { Dhlonike }}{\text { Established Name of Drug }}$


## Date Found Satisfactory

## Comment

Labeling
Chemistry, Manufacturing, and Controls

Puri Subramanian
Robert W. Trimmer, Ph.D. GMD'S


Approved
Disapproved
Director, Division of Generic Drugs

- Date

Comments:

## AIRBORNE EXPRESS

December 19, 1991
Office of Generic Drugs
CDER, FDA
Metro Park North II
7500 Standish Place, Room 150
Rockville, Maryland 20855

## Owen/GALDERMA

6201 South Freeway
P.O. Box 6600

Fort Worth, Texas 76115
(817) 293-0450

CHRISTINE E. SHANK
Manager
Regulatory Affaits

ATTENTION: Document Control Room
SUBJECT: ANDA 72-354
DesOwen (Desonide) Lotion, 0.05\%
Dear Dr. Trimmer:

Reference is made to our telephone conversations of December 18, 1991 and the two Telefax transmissions made to you in support of the pending application for DesOwen Lotion, 0.05\%.

Please find herewith, in duplicate, copies of the Telefax transmissions for formal incorporation into the ANDA 72-354 document.

I would like to express my sincere appreciation of your time and consideration extended in the review of this application. It has been a pleasure working with you.

Sincere regards.
Christivictshonte
Christine E. Shank
Manager, Regulatory Affairs
CES/dw

## AIRBORNE EXPRESS

December 13, 1991
Office of Generic Drugs
DER, FDA
Metro Park North II
7500 Standish Place, Room 150
$\therefore$ Rockville, Maryland 20855

## Owen/galderma

6201 South Freeway
P.O. Box 6600

Fort Worth, Texas 76115
(817) 293-0450

CHRISTINE E. SHANK
Manager
Regulatory Affairs

ATTENTION: Document Control Room
SUBJECT: ANDA 72-354
REFERENCE: Telephone conversation of December 6, 1991
Dear Dr. Trimmer:
Pursuant to our conversation of last Friday, efforts have been made to obtain as much of the documentation on the containers and closures as is available at this time.

First of all, as promised, please find with this submission stability reports for the 2 fl . oz. and 4 fl . oz. sizes which have been updated with the 15 month test data and have been corrected to accurately reflect the packaging component materials and the fabricators (suppliers). The reports provided are from the "test batches" described in my previous submissions.

| Batch No. | Stability Lot | Size |
| :--- | :--- | :--- |
|  |  |  |
| DECK | 53540786 | $2 \mathrm{fl.oz}$. |
| DECK | 53540787 | $4 \mathrm{fl.oz}$. |
| DFCE | 53540789 | $2 \mathrm{fl.oz}$. |
| DFCE | 53540790 | $4 \mathrm{fl.oz}$ |
| PFC | 53540792 | $4 \mathrm{fl.oz}$. |
| PFC | 53540793 | $2 \mathrm{fl.oz}$. |

You will note that for the lots which employ the containers made with $\quad$ (b)(4) is identified as the fabricator. A letter of authorization to reference their Drug Master File \# ${ }^{(b)(4)}$ is provided. I apologize for the error in identifying the supplier for these containers as it was simply a mistake in our haste to provide the stability data and it was generally assumed that was the supplier.

## AIRBORNE EXPRESS

Document Control Room
Office of Generic Drugs
CDR, FDA
Page 2
After contacting we were able to obtain "Certificates of Compliance" for the containers used in the stability studies. ${ }^{\text {(b) (4) }}$ was also kind enough to share with us their USP test results for the which demonstrate comparative equivalency of
the materials.
You will also find enclosed the $\quad{ }^{\text {(b)(4) }}$ Containers' "Certificates of Compliance" and the Dermatological Products of Texas, Inc. inspection reports for the bottles used in the stability studies.

This and the IR scans provided in our December 5, 1991 submission is all the documentation we have for the packaging components. We are of the opinion that substantial verification of the components is provided and that the components as specified are satisfactory for use with a topical lotion dosage form.

We appreciate your continued interest and consideration of the information provided herewith. It is hoped that a final satisfactory decision can be reached in the review of this application.

Sincere regards,


Christine E. Shank
Manager, Regulatory Affairs
Telephone: (817) 551-8516
FAX: (817) 551-8079

EER UPdate for APPROVIAL
DEPARTMENT OF HEALTH \＆HUMAN SERVICES

Date जिए心，（by）

Subject ESTABLISHMENT EVALUATION REQUEST

To Division of Manufacturing \＆Product Quality（HFD－320）

Sterile Product $\qquad$ Non Sterile Product $\qquad$
Application and Supplement No． $72-354$
Brand Name（if any） $\qquad$
Establishment Name，Dosage Form and Strength $\qquad$
Profile Class Code：＿工IN
Priority Classification：
Applicant＇s Name： $\qquad$
Facilities to be Evaluated：（Name，full Address，DMF No．，and responsibility）
For HFD 320 Use
Status \＆Date of Inspection：
 $\qquad$
$\qquad$




For HFD－320 Use Only： Aacceptrible
 CGMP Compliance Status of Facilities Evaluated：
$\qquad$ Date Completed： $\qquad$ 12／5／91

Distribution：Original and First（copy：HFD－320
Remanmy Copies：Requesuny Give し い

## ANDA Approval Summary



ANDA Number

OwEN/Galdermar

$\frac{m L}{2+4-f .0 z}$
 GMO's
Manufacturer - Finished Dosage Form
Outside Facilities
Manufacturer (s) - Active Ingredient (s)
Listed Drug Information $505(j)(2)(A)$
Patent Certification $505(j)(2)(13)$
Date Patent/Exclusivity Expires (if applicable)
Bioequivalence Section
Ins solution Required?
In viva study (s) required?

Study (s) Found Acceptable
Waiver Request Granted
Total Bioequivalence Requirement Met

- Ouan/galderma Labs.


$-$| - $-10-87$ |
| :--- |

$12-4-59$
$12-42$ $12-4-87$
 Bioequivalence Section
 In vive study (s) required?
$\qquad$

$\square$


## AIRBORNE EXPRESS

December 5, 1991

Office of Generic Drugs
DER, FDA
Metro Park North II
7500 Standish Place, Room 150
Rockville, Maryland 20855

ATTENTION: Document Control Room
SUBJECT: DESOWEN ${ }^{\circ}$ (desonide) Lotion, $0.05 \%$

Dear Sir or Madam:

Please find enclosed (in duplicate) copies of the FAX transmissions provided to Dr. Robert Trimmer on November 27, 1991 and December 5, 1991. These documents are to be made a part of the official file for ANDA 72-354.

Sincerely,


Christine E. Shank
Manager, Regulatory Affairs

CES/pc
Enclosures

DATE:
December 5, 1991
TO: Dr. Robert Trimmer
FROM: Christine Shank
SUBJECT: ANDA 72-354

## Owen/GALDERMA

6201 South Freeway P.O. Box 6600

Fort Worth, Texas 76115
(817) 293-0450

CHRISTINE E. SHANK
Manager
Regulatory Affairs


REFERENCE: Telephone conversations of November 27 and December 4, 1991

Dear Dr. Trimmer:
Pursuant to our recent conversations please find with this transmittal additional data, documentation, and information to support our request for approval of this pending application for DESOWEN® (desonide) Lotion, 0.05\%.

1. Drug Master File reference letter for:

2. IR scans of bottle samples employing the

Each represents a transmission spectrum on a portion of the bottle wall prepared by $\quad$ (b)(4) technique described in technical procedure 63.0042000 provided in the original application submission.
3. Packaging description records from the MRs for each of the 2 fl . oz. and 4 fl . oz. stability lots (reference is made to our FAX of November 27, 1991) are provided as documentation that the closure/liner system used is identical in composition to that described previously in the application. A drawing specification is also provided which details the component. Please note the references to "part number" and "drawing number" are interchangeable terms for component number 104058.

## Page 2

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\|^{\prime}
$$

4. After talking with you yesterday, I was in contact with our technical support personnel and was pleasantly surprised to learn that scheduled 15 month stability test data from room temperature studies were available for the $\mathbf{2} \mathbf{f l} \mathbf{~ o z}$. and 4 fl . oz. stability lots. I apologize as I was unaware of this scheduled test station and in my absence from the office the last two weeks was obviously unaware that this data was being generated. The reports transmitted with this FAX are the raw data summaries for the following stability lots showing the 15 month test results and should be considered supplementary to the reports provided in our November 27, 1991 FAX.

Stability Lot Code

53540786
53540787
53540789
53540790
53540792
53540793

Size

2 fl. oz.
4 fl. oz.
2 fl. oz.
4 fl. oz.
4 fl. oz.
2 fl . oz.

I can only ask, given the satisfactory stability profile this recent data demonstrates, that you please consider again our request for a tentative 18 month dating.
5. I appreciate your renewed interest in the compliance issue of time limits for the various phases of the $\quad{ }^{(b)(4)}$ process. I have again consulted with our technical support personnel and the production support staff at Dermatological Products of Texas, Inc. and have been advised as follows:

Based on historical experience with the production of

ANDA 72-354
Page 3

Given that this information and explanation is not significantly different from my November 1, 1991 response to comment 2, I must rely on the expertise of the Dermatological Products of Texas, Inc. production personnel and their ability to effectively and satisfactorily address the matter during the reinspection.

I think you will find that I have provided all the materials and information as agreed in our last conversation. I trust your review of the $\quad{ }^{(b)(4)}$ DMF will also find things in order. If there is anything you or I can do to help expedite the re-inspection of DPT, Inc. I would welcome some suggestion or input in this regard. This is an anxious time for us and obviously an approval for this application is eagerly anticipated. If there is anything further I can do please do not hesitate to give me a call.

Your continued assistance and interest in this submission is greatly appreciated.
Sincere regards,

Christine E. Shank
Manager, Regulatory Affairs

Telephone: (817) 551-8516
FAX: (817) 551-8079

File copies sent Airborne Express to OGD Document Control Room



## AIRBORNE EXPRESS

November 15, 1991
Office of Generic Drugs CDER, FDA
Metro Park North II
7500 Standish Place, Room 150
Rockville, Maryland 20855
AITIENIION: Document Control Room
SUBJECT: ANDA 72-354
DESOWEN ${ }^{8}$ Lotion, 0.05\%

## Owen/GALDERMA

6201 South Freeway
P.O. Box 6600

Fort Worth, Texas 76115 (817) 293-0450

CHRISTINE E. SHANK
Manager
Regulatory Affairs

Dear Dr. Trimmer:
Thank you so much for telephoning me yesterday with the update on the review for this application.

As promised, the following statement is offered to fully clarify the question of Alcon Laboratories, Inc. involvement with regard to post-approval manufacture of the drug product:

The applicant certifies that there will be no utilization of the Alcon facilities for post-approval manufacture or quality control of the commercial product.

If you should have any additional questions please do not hesitate to give me a call.

Sincere regards,


Christine E. Shank
Manager, Regulatory Affairs
Telephone: (817) 551-8516
CES/pC

## RECEIVED

NOU 18 ! 6
geteric drigs

EER UPdate for APPROVAL
department of health \& human services 2076
Amendment to vo lea ls eft

From

Subject

To Division of Manufacturing \& Product Quality (HFD-320)
Division of Chew - I, OGD

$$
\text { NoN, } 14,1991
$$

Memorandum
Date NO, 14,1991 ** $\quad$ MFD -632

Phone $\qquad$


## AIRBORNE EXPRESS

November 1, 1991
Office of Generic Drugs
CDR, FDA
Metro Park North II
7500 Standish Place, Room 150
Rockville, Maryland 20855

## Owen/GALDERMA

6201 South Freeway
P.O. Box 6600

Fort Worth, Texas 76115
(817) 293-0450

CHRISTINE E. SHANK
Manager
Regulatory Affairs


ATTENTION: Document Control Room SUBJECT: ANDA 72-354

DESOWEN ${ }^{\text {® }}$ Lotion, 0.05\%
Dear Dr. Trimmer:
Reference is made to the October 23, 1991 deficiency letter for ANDA 72-354 which was received by the applicant on October 28, 1991.

With respect to this submission, the responses are complete for each of the itemized deficiencies. This amendment to the application is to be given consideration as a minor amendment as directed in the October 23, 1991 agency letter.

We appreciate your consideration of the information provided herewith and will continue to keep you apprised of the compliance activities and developments.

Sincere regards,


Christine E. Shank
Manager, Regulatory Affairs
CES/pc
Enclosures


Owen/Galderma
Attention: Ms. Christine E. Shank
6201 South Freeway
P.O. Box 6600

OCT 231991
Fort Worth, TX 76115
Dear Madam:
Please refer to your abbreviated new drug application dated November 25, 1987 submitted pursuant to Section 505(j) of the Federal Food, Drug, and Cosmetic Act for DesOwen ${ }^{\text {R }}$ (Desonide) Lotion, 0.05\%.

Reference is also made to your communications dated March 26, May 30, August 17, 1990, May 30, August 9, and August 14, 1991 amending this application, and new correspondence of May 19, 1989 and January 12, 1990. We also acknowledge your telephone conversation of August 9, 1991.

The application is deficient and therefore not approvable under Section 505 of the Act for the following reasons:

1. During the FDA inspection of your production facilities, Dermatological Products of Texas, it was learned, among other things, that at least two of your test batches were filled and QC tested at an unreported plant in Fort Worth, Texas. Please amend your application to include all details of previously unreported filling and testing operations at the ALCON facilities including all equipment, container/closure systems utilized, complete test batch records which include the filling process, etc. Please advise us if you intend to utilize this facility post-approval.

Please be advised we await CGMP compliance status of the ALCON facilities.
2. Please submit time limits for the various phases of the drug product production. This must be done on the master batch record and mimic the process used to prepare the bioequivalency batch.
3. Please note that your SOP \#108.1010 is considered too general. Please amend your application to include specific case procedures including supporting data or withdraw this SOP. After approval of this ANDA, you may supplement the application for reprocessing a batch of the drug product as per 21 CFR 314.70 (b) (2)(x).

The file is now closed. You are required to take an action described under 21 CPR 314.120 which will either amend or withdraw the application. Your amendment should respond to all the deficiencies listed. A partial reply will not be considered for review, nor will the review clock be reactivated until all deficiencies have been addressed. The response to this letter will be considered a minor amendment and should be so designated in your cover letter. If you have substantial disagreement with our reasons for not approving this application, you may request an opportunity for a hearing.

Sincerely yours,

$$
\text { RCbsied } 10+2191
$$

Rashmikant M. Patel, Ph.D.


Director
Division of Chemistry I
Office of Generic Drugs
Center for Drug Evaluation and Research

CC: ANDA \#72-354
DUP/Division File
HFC-130/JAllen
HFD-600 Reading File
HFD-638/VSubramaniam
HFD-634/MSmela/RTrimmer/10/17/91
HFD-634/VVashio/10/18/91 Wash w $10 /(8) 91$
R/D initialed by MSmela
cls/10/17/91/d:72-354.LTR
F/T by cls/10/18/91
Not Approvable


## Memorandum

Division of Manufacturing \& Product Quality (HFD-320)

Sterile Product $\qquad$ Non Sterile Product
Application and Supplement No. $72-354$
Brand Name (if any)
Dalian $\alpha$ guys
Establishment Name, Dosage Form and Strength $\qquad$
Profile Class Code: $\qquad$ $01 N$

Priority Classification:
(See SMG BD-4820.3)
Applicant's Name:
bed aid

Facilities to be Evaluated: (Name, full Address, DMF No., and responsibility)

For HFD 320 Use Status \& Date of Inspection:
1.


3.

34.
5. $\qquad$
Other Information or Special Requests: $\qquad$
$* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * ~$

## For HFD-320 Use Only:

Date Received: $\qquad$
CGMP Compliance Status of Facilities Evaluated: $\qquad$
SO: $\qquad$ Date Completed: $\qquad$
RECORD OF TELEPHONE CONVERSATION/MEETING

Date
Qetuar 15, 1991
temes forimato + gorall borg, fiale Investigators
LSon Antinis, TV Were calted this aftr nom. re the recent' 483. Mro Ratrison calle an his Apsciror 4ackDers: Mihe Smela 42 conversed
 winten H- HFD-320
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Hen 53: Regarding Yempratures used for stability stulids.
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- b. Rointeup, stulies we recommend currenty $25-30^{\circ}$ US $P$ states $15-30^{\circ} \mathrm{C}$. The furmurle be toeditiffocture. RTASA, recommend at $25-30^{\circ}$.
Pfem *4: Regards 2 isssus, namely, tine limits on the monuf photes and batch sizes.
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$72-354$
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Des Owen Latin $0.05 \%$

FIRM NAME

- Ouen/galdrrura

NAME AND TITLE OF PERSON WITH WHOM CONVERSATION WAS HELD Jach Davis? Supervisir Games H.Robrison
gerald J-Berg
Field Invitija tors
Son Antonio, TX telephone no.


DIVISION FILE


## United States Government

## "MEMORANDUM

DATE: August 27, 1991<br>REPLY TO: Ann L.deMarco, CSO/ICEB/DMPQ/HFD-320<br>SUBJECT: REVIEW AND COMMENTS FOR EIR OF 6/17-21/91, ANDA 72-354<br>Dermatological Products of Texas<br>San Antonio, Texas CF 1628114<br>TO:<br>OFFICE OF GENERIC DRUGS<br>THRU ACTING CHIEF ICEB/DMPQ/HFD-320<br>

This report was classified as Bureau Pending and was referred to HFD-320 for review and comment. The following comments relate to the items listed on the FDA 483 and to the additional items discussed with management that were not reported on the FDA 483. These comments are to be forwarded with the EIR to the Office of Generic Drugs for their evaluation.

FDA 483 ITEMS:
483 \#1\&2 The CSO reports that two clinical lots formulated at the above referenced firm in San Antonio were subsequently filled and Q.C. tested at a different plant in Ft. Worth, Texas.

Comments: According to the ANDA page 03-0088, commercial product is to be manufactured only at San Antonio. Therefore, comparability of the equipment and procedures between the bio batches and commercial production could not be completed at this plant site since filling of biobatches occurred elsewhere.

The following are additional comments based on the exhibits submitted with the report. First, the batch records do not show that the product was transferred from the formulation tank into drums and transported to the Ft. Worth plant. They also do not indicate that filling \& Q.C. were performed off the plant site. This information was uncovered by the iso through verbal comments made by the firm's personnel which, for at least one lot, was confirmed in a memo as having occurred. This type of information should obviously have been
part of the official batch record.
Second, the commercial batch records submitted with this EIR within Exhibit 26a, end after formulation. It is unclear whether or not their firm has established a filling procedure. The ANDA and associated batch records should describe the commercial process, including filling operations.

483 \#3
Three items ( $a, b, c$ ) are listed here, all of which relate to storage of stability samples. They indicate that the firm needs to update its SOP with correct temperatures for accelerated studies; it needs to change recorder charts at proper frequency and sign and initial charts per SOP.

Comments: The CSO does not report any impact on data related to the 483 comments, therefore, they appear to be minor record keeping deficiencies.

However, during a review of the firm's SOP for storage of stability samples (Exh 4), it was noted that the SOP states that controlled room temperature samples can be stored between $86^{\circ} \mathrm{F}$. We question the use of a (b) degree range for storing controlled temperature stability samples. Any product labeled with storage statements of ${ }^{\text {(b) (4) }} 86^{\circ} \mathrm{F}$ should be stored at the highest temperature that will be stated on product labeling, i.e. $86^{\circ} \mathrm{F}$ (which is $30^{\circ} \mathrm{C}$ ).

483 \#4 This issue relates to a lack of time limits for various phases of production which the firm should establish as part of its process validation studies.

Comments: The following are additional comments relating to the validation report submitted with the EIR in reference to this 483 point. The firm conducted validation studies on two ${ }^{(0)(4)}$ Kg batches from which they have determined the mix times, etc. They conclude that the "process" is validated. The commercial batch size, however, ranges up to ${ }^{(b)(4)} \mathrm{Kg}$. We question if the validation of $\mathrm{a}^{\left({ }^{(0)(4)}\right.} \mathrm{Kg}$ batch can assure proper parameters of mix times, etc, for a full scale lot.

483 \#5 This 483 item references a minor record keeping discrepancy for documenting rework of a non-conforming batch.

Comments: While the explanation of a record keeping deficiency appears to be plausible, the key issue, we feel, concerns the presence of a general rework provision in the ANDA, i.e. SOP \#108.1010. Rework procedures should be specific and be supported by data. If this is not the case, then rework procedures should not be
approved as part of the ANDA. A supplement should be required if the need for rework would arise.

483 \#6 This item reports a discrepancy between the procedure actually used for sanitizing equipment and that in the firm's SOP.

Action: The firm should establish a correct sanitization procedure and should have validation data to support their choice. Microbial controls for this topical product are important since it is a water/oil emulsion which can support microbial growth in the water phase.

## OTHER DISCUSSIONS WITH MANAGEMENT NOT REPORTED ON THE 483

1. The CSO states that the pH spec for the finished product was changed from ${ }^{(b)(4)}$. The firm indicated that the reviewer was aware of this change but could not produce any documentation to confirm this.

Comments: The cSO states in the report that there are no bioequivalence studies to support the changed spec. This does not appear correct since data in batch records submitted with the EIR show that the two bio lots reviewed by the cSo (AHE-1911 \& AIE-2059) had pH values of $\quad{ }^{\text {(b) (4) }}$ respectively. These levels appear to correlate to the new specification.
2. The cSO noted that the commercial batch records report batch sizes up to ${ }^{(b)(4)} \mathrm{Kg}$ but the ANDA states maximum batch size will be ${ }^{\text {(b) (4) }} \mathrm{Kg}$.

Comments: Commercial batch records should be in agreement with ANDA commitments before approval is granted.

## ANDA ACTION LETTER ROUTING RECORD




1．R．Pollock，M．S． Chief，Program Support Staff comments：$\varepsilon \mathcal{R}$ update No

Date 8／24（9）
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Office of Generic Drugs Comments：

6．Office Level Bio Review Comments：

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7. R. Williams, M.D.
    Director
    Office of Generic Drugs
    Comments:
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Date
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Date
Initials $\qquad$


From: FDA605
Subject: DESONIDE LOTION
Mail Id: IPM-157-910821-148361302
TO: Compliance Evaluation Staff (HFD-320)
INFO: MPQAS (HFC-120)
RFDD (HFR-MA1), Richard Davis

FROM: Mary Woleske, Acting District Director Dallas District (HFR-SW100)

DATE: August 19, 1991
SUBJECT: ANDA 72-354, Desonide Lotion 0.05\%
Establishment: Dermatological Products of Texas, Inc. San Antonio, Texas

Inspection of Dermatological Products of Texas, June 17-21, 1991, covered ANDA 72-354, Desonide Lotion 0.05\%, and the EIR was referred to HFD-300 for evaluation. HFD-320 was advised of inspectional findings on $7 / 15 / 91$. Approval of ANDA will be dependent upon review of HFD-300. Dallas District is not aware of any adverse information concerning the manufacture of this product, and there is no ongoing inspection covering the product. We considered firm acceptable in Profile Classes LIQ and OIN during EI of 6/17-21/91.
(Robert J. Deininger for)
Mary Woleske
MW:JAK:esl

OUTGOING 08/21/\#1 08/21/91 DAE

RECEIVED 8/21/91 AT 4:35 P.M. JMD

August 14, 1991
Office of Generic Drugs ODER, FDA
Metro Park North II
7500 Standish Place, Room 150
Rockville, Maryland 20855
ATTENTION: Document Control Room
SUBJECT: DESOWEN® Lotion, 0.05\%

## Owen/galderma

is 6201 South Freeway
P.O. Box 6600

Fort Worth, Texas 76115
(817) 293-0450

CHRISTINE E. SHANK
Manager
Regulatory Affairs
$72-354 \quad A C$

Dear Sir or Madam:
Reference is made to telephone conversations with Dr. Robert Trimmer, FDA Reviewer, on August 12th, 13th, and 14th regarding the subject pending ANDA for DesOwen Lotion, 0.05\%.

The enclosed communications are hereby formally submitted, in duplicate, as confirmation of the documentation provided by FAX to Dr. Trimmer for his review and consideration.

Sincerely,

Christine E. Shank
Manager, Regulatory Affairs
CES/pc
Enclosure


FORM FD $1642(2 / 75)$
PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED.


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FORM FO 2587 (11/77)
DIVISION FILE


AIRBORNE EXPRESS

August 9, 1991

Office of Generic Drugs ODER, FDA
Metro Park North II
7500 Standish Place, Room 150
Rockville, Maryland 20855
ATTENTION: Document Control Room
SUBJECT: ANDA 72-354
DESOWEN ${ }^{\text {® }}$ Lotion, $0.05 \%$

## Owen/GALDERMA

6201 South Freeway
P.O. Box 6600

Fort Worth, Texas 76115
(817) 293-0450

CHRISTINE E. SHANK
Manager
Regulatory Affairs


Dear Sir or Madam:
Reference is made to telephone conversations with Dr. Robert Trimmer, FDA Reviewer, on August 7th and 9 th regarding the subject pending ANDA for DESOWEN® Lotion, 0.05\%.

Pursuant to these conversations, the applicant submits herewith the requested information for Dr. Trimmer's review and consideration.

Sincerely,


Christine E. Shank
Manager, Regulatory Affairs
CES/pc
Enclosure
DESK COPY: Dr. Robert Trimmer HFD-634, Room 229


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Dare August $7^{\text {t/ }} 1991$

Subject ESTABLISHMENT EVALUATION REQUEST

To Division of Manufacturing \& Product Quality (HFD-320)


Establishment Name, Dosage Form and Strength $\qquad$ $\frac{\text { Lesonede, faction, } 0,05 \%}{(O, N}$

Priority Classification: $\qquad$ ESR Update: for AP

Address: 6201 South Freeway, fort Worth, TY 761.34
Facilities to be Evaluated: (Name, full Address, DMF No., and responsibility)
For HFD 320 Use
(b) (4)

DPTS 1. Deimantreogical Products of Toy vas, the
${ }^{(b)}$ (4) Date of Inspection:
4. $\qquad$
$\qquad$
5. $\qquad$
$\qquad$
Other Information or Special Requests: $\qquad$


AUG 8
For HFD-320 Use Only:
Date Received:

Distribution: Original and First Copy: HFD-320
Remaining Copies: Requesting Office Vise

CERTIFIED MAIL P 672235188
Return Receipt Requested
May 30, 1991
Office of Generic Drugs
DER, FDA
MAN II, HFD-600
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/AMENDMENT DesOwen (Desonide) Lotion, 0.05\%


Dear Sir or Madam:
Reference is made to our pending Abbreviated New Drug Application for DesOwen (Desonide) Lotion, $0.05 \%$. Reference is also made to your correspondence dated March 7, 1991 (copy enclosed), requesting additional information regarding Dermatological Products of Texas, Inc. (DPT, Inc.) as a contract manufacturer for Owen/Galderma Laboratories, Inc. (Owen/Galderma).

Please find enclosed the information and commitments requested in your March 7, 1991 correspondence. In addition, we are providing Final Printed Labeling which has been revised to accurately reflect the manufacturer and distributor relationship now in effect between DPT, Inc. and Owen/Galderma.

Further, with regard to the approval process for this application, we have been in contact with both the Dallas District Office and the San Antonio Resident Inspection Post concerning the scheduling of the pre-approval inspection. We are now anticipating the inspection of the DPT, Inc. operations relative to production of this product to be conducted during the week of June 17.

It is our sincere hope that you will find the enclosed information and commitments satisfactory and complete. And, it is anticipated that this submission along with a .satisfactory pre-approval inspection report will serve to complete the review and approval process for this application. If, however, there are any questions, I would appreciate a call (817) 551-8516.

Sincerely,


Christine E. Shank
Manager, Regulatory Affairs
CES/pc
Enclosures

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GENESIS DRUGS

| ANDA | 72-354 | 87-644 |
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|  | 80-426 | 84-698 |
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|  | 80-443 | 71-425 |
| NDA | 19-106 |  |
| AADA | 62-522 |  |
| Owen/Galderma |  |  |
| Attention: Christine Shank 6201 South Freeway |  |  |
|  |  |  |
| P.O.Box 6600 |  |  |
| Fort | North, TX |  |

Dear Madam:
Reference is made to your correspondence dated November 27, 1990, informing the Agency that the manufacturing plant in San Antonio, Texas, used in the production of certain of your approved products has been purchased by Dorman-Feik Acquisitons Corporation and that the site will continue to manufacture those products under the approved specifications in the above referenced applications. The new owners will operate this facility under the name of Dermatological Products of Texas.

Reference is also made to the January 15, 1991 telephone conversation between yourself and Mr. John Dawson, Review Support Staff, Office of Generic Drugs concerning this matter.

Please be advised that the Agency views Dermatolgical Products of Texas as a contract manufacturer. Since there has been no transfer of the applications to that group, you must supplement all of your applications for this change. You should provide the following information as a part of those supplemental applications:

1. A commitment from the contract manufacturer that all commitments made in the applications will be followed in the manufacture, control and testing of the drug product. A commitment should also be provided indicating the contract manufacturer will notify the application holder prior to initiating any change that would require prior approval under 21 CFR 314.70 and that such changes will not be implemented prior to obtaining Agency approval for the proposed change.
2. Identify the responsible individuals at the contract facility.
3. Provide information regarding any change in equipment.
4. The applicant may provide right of reference to the contract manufacturer, should the information in the applications be the same information that would be required to be submitted by the contract manufacturer to verify that the promises, equipment, and conditions of manufacturer are the same as those in the applications.
5. The contract manufacturer must address environmental assessment considerations.
6. Please provide a complete description of functions of the contract manufacturer in regard to the functions previously conducted by the applicant and the functions now to be performed by the contract manufacturer (e.g., will the contractor be responsible for manufacturing, packaging, labeling and testing as was the applicant?).

Please be aware that the applicant is responsible for submitting all required information in proper format to the applications. In addition, upon review of the information listed above the Agency may determine that additional information will be required prior to approval of any supplemental application requesting such a change.

You should prepare and submit supplemental applications for each of the applications for which this change is pertinent. Please let us have your response promptly.
sincerely yours,
Colet a-Dennem $3 / 6 / 9 /$
Acting Director
Divisions of Chemistry I and II
Office of Generic Drugs
Center for Drug Evaluation and Research
$87-644$
$84-698$
$87-204$
$71-425$

NDA 19-106
AADA 62-522
DUP/Division File
HFD-82
HFD-634/RPatel/RTrimmer/2-15-91 (2 copies)
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HFD-634/RPatel/JPeichocki/2/15/91
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HFD-635/JHarrison/VWalton/2/25/91
HFD-635/JHarrison/RAdams/2/15/91
HFD-632/RPollock/2-15-91
HFD-6007Reading File
R/D initialed by GJohnston bCw/2-15-91/72354mul.tra F/T by bcw/3-1-91


Transfer of ownership

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AIRBORNE EXPRESS MAIL
\#824-076-514
August 17, 1990

Division of Generic Drugs
ATTENTION: Document Control Room
HFD-630, Room 17B-20
Food and Drug Administration
Center for Drug Evaluation and Research
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/Amendment
DESOWEN (Desonide) Lotion 0.05\%
Response to Chemistry Review Comments
Gentlemen:
Reference is made to a telephone conversation with Dr. Robert Trimmer and Dr. Joseph Piechocki on June 28, 1990 regarding the pending application for DesOwen (Desonide) Lotion, 0.05\%.

The applicant submits herewith a response to each of the four comments described by and discussed with Drs. Trimmer and Piechocki. We anticipate that the reviewer will recognize the significant improvements made with regard to the chemistry for detection of potential degradation products and the significance of the proposed product pH profile. If, however, the reviewer wishes to discuss any technical questions or concerns with our chemist, I will be happy to make arrangements for a conference call. Please do not hesitate to contact me if I can be of assistance (817)/551-8516).

Sincerely,


Christine E. Shank
CES/st

## RECEIVED



ALERCREME

## OWEN LABORATORIES <br> ALLERCREME HYPO-ALLERGENIC COSMETICS <br> DIVISIONS OF <br> is" <br> DERMATOLOGICAL PRODUCTS OF TEXAS, INC.

CHRISTINE E. SHANK
Manager
Regulatory
Regulatory Affairs
AIRBORNE EXPRESS
A/B 519859222
Division of Generic Drugs
Attention: Document Control Room
HFD-630, Room 17B-20
Food and Drug Administration
Center for Drug Evaluation and Research
5600 Fishers Lane
Rockville, Maryland 20857

## RE: ANDA 72-354

DESOWEN (Desonide) Lotion 0.05\%
Gentlemen:
Reference is made to two telephone conversations on April 6, 1990 and May 10, 1990 with Dr. Sumer Dugar regarding the pending application for DesOwen (Desonide) Lotion, 0.05\%.

In the conversations, Dr. Dugar commented that since it appeared that the desonide in DesOwen Lotion may be degrading the applicant should identify the degradation product, set limits and provide for routine analysis. Based on the data and information currently available to the applicant, please find enclosed a response to the comments. If, after Dr. Dugar has had an opportunity to review the enclosed information, there are any technical questions or concerns which he would like to discuss with our chemists directly, we would be happy to make arrangements for a conference call.

If, of course I can be of further assistance, please do not hesitate to give me a call (817/551-8516).

RECEIVED
Sincerely yours,


Christine E. Shank
CES/db
Enclosure




FORM FO 2587 (11/77)

OWEN LABORATORIES
ALLERCREME HYPO-ALLERGENIC COSMETICS

## CHRISTINE E. SHANK <br> Manager <br> Regulatory Affairs

AIRBORNE EXPRESS
A/B 470615434

## ORIG MEN CORRES

March 26, 1990
Food and Drug Administration
Center for Drug Evaluation and Research
Division of Generic Drugs (HFD-230)
Attention: Document Control Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857

## RE: ANDA 72-354

DESOWEN (Desonide) Lotion 0.05\%
Gentlemen:
Reference is made to a telephone conversation on March 12, 1990 with Dr. Sumer Dugar regarding the subject drug product.

Dr. Dugar relayed five additional review comments to which we are responding with this submission. Please find enclosed, by itemized comment, the requested information and data.

We sincerely appreciate the opportunity to discuss these concerns directly with Dr. Dugar and eagerly anticipate the conclusion of the review for this application.

Sincerely,


Christine E. Shank
CES/db
Enclosure


Desk Copy: Dr. Sumer Dugar




Review of ANDA ready for approvali,' at the request of Dr. Patel was scanned to ensure every aspect is possibly chearalle for approval. sterns need disarssion with br. Patel were Flagged, written and responded (by or. Patel). The following items were identified for clanificethrin $b_{y}$ the firm:

1. Commitment from Firm not to exceed Production batch Size of ${ }^{(b)(4), ~} \mathrm{Kg}$.
2. Confirmation on the source of NDS used in manufacture of the clinical batch (RM Lot \#40436 used in inks batch)
3. Clarification on the \# of bat che manufactured. Bated ticket is ont for one Batch. Hocireven stere ane 4 bstehn for stability data
4. Noted a decline in potency by abort ${ }^{(b)(4)} \%$ at $25^{\circ}-28^{\circ} \mathrm{C}$ in $26^{\text {(4) week? }}$ an Aimilan decline in 12 vets at $35^{\circ} \mathrm{c}$. Need to clarify if dequadatiof is apparent, if rut explanation of this vanisility. Firmpasked to send response to Jacket by over night mail

NA NUMBER
$A N D A>2-354$
in o Number

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MADE

- APPLICANT/ sponsor Yoytele. © FDAin person product name
Dis Owen (desonide)
Lotion 0.05\%

FIRM NAME
Owen Laboratories

NAME AND TITLE OF PERSON WITH WHOM CONVERSATION WAS HELD

Ms. Christine E. Shank Mgr. Regulatory Affairs

Dr. Dugan/D. Patel telephone no.
(817) 293.0450 caller trice

$$
\%: g r-P a t
$$

signature


## AIRBORNE EXPRESS

A/B 204541562
January 12, 1990
i: ALCON LABORATORIES, INC. 6201 SOUTH FREEWAY FORT WORTH, TEXAS 76134-2099
(817) 293-0450 TELEX 758320

Bruce Burlington, M.D.
Acting Director
Office of Generic Drugs
Food and Drug Administration
Center for Drug Evaluation and Research (HFD-230)
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354
DESOWEN (Desonide) Lotion 0.05\%
Dear Dr. Burlington:
Reference is made to our pending Abbreviated New Drug Application (ANDA 72-354) for DESOWEN (Desonide) Lotion 0.05\% submitted on November 25, 1987. Please find with this letter, for ease of reference, a chronology of activities relating to this application.

Our application for DesOwen Lotion $0.05 \%$ is pending final FDA action which has now exceeded the 180 day statutory requirement. The application was complete with our amendment of April 18, 1989 including bioequivalence results and final printed labeling. Generic Drugs advised us in October 1989 of their receipt of the bioequivalence review by the Anti-Infective Drugs Division recommending approval.

This was the last substantive information we have been given despite numerous calls expressing our concern with regard to final review and approval action. It was finally suggested to us by Mr. Rosen last Friday that a written inquiry be made. While we are keenly aware of the diversions and distractions affecting activities within the Generic Drug Division we are quite anxious to know what to expect concerning this imminently approvable application. I would be pleased to take whatever action may be appropriate to move the application to final approval. If a telephone call or meeting can help resolve the impasse, I am available at (817)551-8920.

Sincerely,


William H. Hubregs, Ph.D.
CES/db
cc: Document Control Room 17B-20 (HFD-230) File -

## RECEIVED

JAN I 5 O

REMERT: TMUS


# ALLERCREME HYPO-ALLERGENIC COSMETICS 

DIVISIONS OF DERMATOLOGICAL PRODUCTS OF fieXAS, INC.

CHRISTINE E. SHANK
Manager
Regulatory Affairs
CERTIFIED MAIL P-127-239-622
Return Receipt Requested
May 19, 1989
Food and Drug Administration
Center for Drug Evaluation and Research
Division of Generic Drugs (HFD-230)
Attention: Document Control Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354
DESOWEN (Desonide) Lotion 0.05\%
Gentlemen:
We acknowledge receipt on May 18, 1989 of your letter dated May 15, 1989 regarding the subject Abbreviated New Drug Application. Reference is also made to our amendment dated April 18, 1989.

Pursuant to the provisions of 21 CFR 314.120(e) the applicant extends to the Agenc sufficient but reasonable time to complete the evaluation of the Clinical Bioequivalence Study submitted in an amendment to the application on April 18, 1989.

As regards labeling for the drug product, Final Printed container, carton and insert labeling (twelve examples each) were also provided in the April 18, 1989 amendment submission. It is our understanding that these items have been received by the Agency and are in queue for review.

In anticipation that the April 18, 1989 submission will be found satisfactory and complete the requiremerts for approval of this application, we hope to hear from you scon.

Sincerety yours,


Christine E. Shank
CES/db -
Enclosures

RECEMED
hat ors
GENERT BTUCG

Owen Laboratories $i^{\prime}$
Division of Dermatological Products of Texas. Inc.
Attention: Ms. Christine Shank
6201 South Freeway
Forth Worth. TX 76134
Dear Madam:
Please refer to your abbreviated new drug application dated November 25, 1987. submitted pursuant to Section 505(j) of the Federal Food, Drug, and Cosmetic Act for Desowen (desonide) Lotion, $0.05 \%$.

We acknowledge receipt of your communications dated November 16 and 28,1988 and April 18, 1989 amending the application.

The application is deficient and therefore not approvable under Section 505 of the Act for the following reasons:

1. We await the evaluation of the Clinical Bioequivalence Study recently submitted. We will communicate with you upon completion of the evaluation.
2. Please prepare and submit final printed container labels and carton labeling. The package insert labeling as submitted is satisfactory, but we cannot request final printed insert labeling until the Bio data have been found satisfactory and we have had a chance for review and comment.

The file is now closed. You are required to take an action described under 21 CFR 314.120 which will either amend or withdraw the application, or if you have substantial disagreement with our reasons for not approving this application, you may request an opportunity for a hearing.

Sincerely yours,


Marvin Se1fe. H.D. Director Division of Generic Drugs Office of Drug Standards Center for Drug Evaluation and Research
cC:
HFD-230, HFD-234
BTArnwine $5 / 10 / 89$
R/D INIT. BY RPatel/MSeife
jth: 0009j 5/12/89
G: Johnston.




## CHRISTINE E. SHANK <br> Manager <br> Regulatory Affairs

FEDERAL EXPRESS
A/B 2561337332

April 18, 1989

Food and Drug Administration
Center for Drug Evaluation and Research
Division of Generic Drugs (HFD-230)
Attention: Document Control Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/Amendment
DESOWEN (Desonide) Lotion 0.05\% CLINICAL BIOEQUIVALENCE STUDY FINAL PRINTED LABELING

Gentlemen:
Reference is made to our pending abbreviated new drug application, ANDA 72-354, for DesOwen (Desonide) Lotion 0.05\%. Reference is also made to your letter dated November 14, 1988 and our response dated November 28, 1988 specifically as regards the matter of the Clinical Bioequivalence Study for the the drug product.

Please find enclosed the Clinical Monitor's Summary Report for the study conducted in patients with psoriasis comparing the proposed drug product, DesOwen (Desonide) Lotion 0.05\%, with the listed drug product, DesOwen (Desonide) Cream 0.05\%, to demonstrate bioequivalence. This study was conducted under Protocol C-88-52 submitted to this application on November 16, 1988.

Also, please find enclosed Final Printed labeling for the drug product. The Archival copy contains 12 examples of each item. Extra examples are provided in both the Technical Review and the Bioequivalence Review copies of this submission.

OWEN/ALLERCREME

Owen Laboratories, Inc.
ANDA 72-354, DesOwen (Desonide) Lotion 0.05\%
April 18, 1989
Page 2

This submission constitutes completion of the outstanding issues relating to this application. We sincerely hope the Agency will undertake to expedite the review of this additional information to complete the approval of the application.

Sincerely yours,


Christine E. Shank
CDS/db
Enclosures

$$
\begin{aligned}
& \text { Bectued } \\
& \text { APR } 20 \mathrm{~mm} \\
& \text { Covern rama }
\end{aligned}
$$

OWEN LABORATORIES
ALLERCREME HYPO-ALLERGENIC COSMETICS
DIVISIONS OF
DERMATOLOGICAL. PRODUCTS OF TEXAS, INC.

CHRISTINE E. SHANK
Manager
Regulatory Affairs
CERTIFIED MAIL P 834-850-879
Return Receipt Requested

# RDA ORIG AMENDMENT 

November 28, 1988


Food and Drug Administration
Center for Drug Evaluation and Research
Division of Generic Drugs (HFN-230)
Attention: Document Control Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/Amendment
DesOwen (Desonide) Lotion 0.05\%
Gentlemen:
We acknowledge receipt on November 22, 1988 of your letter dated November 14, 1988 regarding our pending ANDA for DesOwen Lotion 0.05\%.

Please find enclosed herewith a response to each of the itemized review comments. The actions which are pending for completing this application review are submissions for final printed labeling and the bioequivalence study results. These items will be provided when the bioequivalence study is completed.

Sincerely,


## RECEIVED

DEC 6 law
CES/db
Enclosure
generic drugs


# OWEN LABORATORIES <br> ALLERCREME HYPO-ALLERGENIC COSMETICS <br> dIVISIONS OF <br> DERMATOLOGICAL PRODUCTS OF TEXAAS, INC. 

CHRISTINE E. SHANK
Manager
Regulatory Affairs
CERTIFIED MAIL P 834-850-872
NDA OAO AKESDAENT
Return Receipt Requested
November 16, 1988
Food and Drug Administration
Center for Drug Evaluation and Research
Division of Generic Drugs (HFN-230)
Attention: Document Control Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/Amendment
DesOwen (Desonide) Lotion 0.05\% Bioequivalence Study Protocol

Gentlemen:
Reference is made to your letter dated July 1, 1988 regarding the bioequivalence study protocols submitted in our Abbreviated New Drug Application for DesOwen (Desonide) Lotion 0.05\%. Reference is also made to a previous review letter dated May 18, 1988 requesting submission of our evaluation of the vasoconstrictor study for the subject drug product.

Please find enclosed herewith a new clinical study protocol, designated Protocol C-88-52, which proposes to compare the new drug product, DesOwen Lotion $0.05 \%$, with the listed drug product, DesOwen Cream 0.05\% in patients with psoriasis to demonstrate bioequivalency. In accordance with the Division of Anti-Infective Drug Products recommendations, the study will include a lotion vehicle comparison, global evaluation, randomized parallel groups of patients, and will be investigator blinded.

The study will be conducted under contract by TKL Research, Inc., Maywood, New Jersey. A copy of the responsibilities agreement with this contract facility is provided. Also provided is a curriculum vitae for Allan H. Greenspan, M.D. the investigator designated to conduct the study. The submission also includes formulation composition statements for each of the test materials as requested.


OWEN/ALLERCREME
6201 SOUTH FREEWAY FORT WORTH, TEXAS 76134 (817) 293-0450

Dermatological Products of Texas, Inc.
ANDA 72-354
DesOwen Lotion 0.05\%
November 16, 1988
Page 2

With regard to the vasoconstrictor assay, the applicant provided a complete evaluation of the study results in the June 6, 1988 amendment to the application. This submission was made in response to the Agency's comments and requests for additional information in the above referenced May 18, 1988 letter.

We would sincerely appreciate hearing from the Agency as soon as possible if there are any significant omissions or deficiencies in this new protocol as we intend to commence with the study this month.

Your time and consideration in review of this amendment is appreciated.

Sincerely,
PECEDSD


Christine E. Shank
Gumand
CES/db
Enclosure

Owen Laboratories
Division of Dermatological Products of Texas, Inc.
Attention: Christine Shank
6201 South Freeway
Fort Horth, TX 76134
Dear Madam:
Please refer to your abbreviated new drug application dated November 25, 1987 submitted pursuant to Section 505(j) of the Federal Food, Drug, and Cosmetic Act for Desowen (desonide) Lotion, 0.05\%.

We acknowledge receipt of your communications dated June 6 and 24,1988 amending the application.

The application is deficient and therefore not approvable under Section 505 of the Act for the following reasons:

1. We await the submission of the additional information requested as per our conmunication dated July 1 , 1988 regarding the bioequivalence of the drug product.
2. Please revise the stability protocol to express the test stations in months rather than weeks.
3. He acknowledge the revisions made in the manufacturing instructions with more specific information. However, it would be preferred if the specific names of the equipment are given.
4. It fails to include in the labeling the following:

Carton: | We question your content statement, Your composition |
| :--- |
| statement lists citric acid and/or sodium hydroxide as |
| present in the formulation. However, the carton |
|  |
| labeling indicates that these components may be |
| present. please comment. |

Container: $\quad$ See conment under carton labeling.
Insert:
He cannot request final printed copy until the issue regarding the
composition has been resolved.

## Page 2

5. He await evaluation of the methods by the Dallas District Laboratory.

The file is now closed. You are required to take an action described under 21 CR 314.120 which will ether amend or withdraw the application. or if you have substantial disagreement with our reasons for not approving this application, you may request an opportunity for hearing.

Sincerely yours.


Director
Division of Generic Drugs
Office of Drug Standards
Center for Drug Evaluation and Research
cc:
HFD-234
GJohnston/Pate1/BTArnwine
r/d Patel/MSeife
mb 11/10/88 (1892b)
not approvable


## OWEN LABORATORIES

ALLERCREME HYPO-ALLERGENIC COSMETICS
DIVISIONS OF
DERMATOLOGICAL PRODUCTS OF TEXAS, INC.

CHRISTINE E. SHANK
Manager
Regulatory Affairs
CERTIFIED MAIL P 469-888-949
Return Receipt Requested

June 24, 1988

Food and Drug Administration
Center for Drug Evaluation and Research
Division of Generic Drugs (HFN-230)
Attention: Document Control Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/Amendment
Des0wen ${ }^{\text {® }}$ (Desonide) Lotion 0.05\%
Samples Submission for Methods Validation
Gentlemen:
We acknowledge receipt, on June 14, 1988, of your letter dated June 8 , 1988 requesting submission of finished dosage form samples for methods validation.

Please find enclosed a complete copy of our correspondence to Mr. James Burke, HFR-SW160, and the information materials provided with the samples submission.

Sincerely,


CES/db
Enclosure


Owen Laboratories

$$
A N D A 72-354
$$

Division of Dermatological Products of Texas, Inc. Attention: Ms. Christine Shank P.O. BOX 6600

Fort Worth, IX 76115
Dear Madam:
Reference is made to your abbreviated new drug application submitted pursuant to Section 505(j) of the Federal Food, Drug, and cosmetic Act for Desowen (Desonide) Lotion 0.05\%.

Reference is also made to the protocols you submitted to establish the bioequivalence of the above product. The protocols have been reviewed by the Division of Anti-Infective Drug Products, HFN-815, and they have the following comments:

## "Proposed Studies:

1. Vasoconstrictor Assay The vasoconstrictor assay is to be performed by Dr. R. B. Stoughton in volunteer subjects. The protocol is a standard one and is satisfactory.
2. Eczema Protocol The investigator for this study will be H.I. Rata, M.D.; Dr. Katz's qualifications have not been provided.
A. Study design: This is an investigator-blinded, randomized, paired comparison of Desowen Cream and Desowen Lotion in 36 patients with bilateral cream.
B. Patient selection: Males and females with a minimum age of 6 with varying degrees of bilateral eczema which could normally be treated with low-potency topical steroids.
C. Treatment regimen: The medications are to be applied to affected areas three times daily, one medication will be applied to the left side of the body and the other to the right side. Medications will be color-coded (left side blue and right side yellow). The study is to continue for three weeks with four investigator evaluations; on prior to therapy and weekly thereafter.
3. Effectiveness parameters: patients will be evaluated for erythema, scaling excoriations, pruritus, oozing/weeping, and overall severity on a scale of 0-9 as follows:

$$
\frac{\text { Clear }}{0} \quad 1, \frac{\text { Mild }}{2,3} \quad \frac{\text { Moderate }}{4,5,6} \quad \frac{\text { Severe }}{7,8,9}
$$

## page 2

Evaluation: This protocol presents two major difficulties: the choice of eczema as the disease to be treated, and the choice of a paired comparison methodology.

Topical steriods are nomally required to show effectiveness in both atopic dermatitis and psoriasis prior to approval. If only one clinical study is to be performed, the more difficult indication (psoriasis) should be studied, since a product which is effective against peoriasis may be expected to also be effective against atopic dermatitis. On the other hand, effectiveness against atopic dermatitis does not necessarily indicate that a product will be useful in poriasis.

In addition, parallel groups of patients should be studied (one group on cream, and the other on lotion). Use of the paired comparison technique greatly increases the chance of medication mix-up, especially if the patients themselves are to apply the drugs.

It is also felt that a global evaluation should be performed according to a scale of improvement from baseline (rather than the overall severity score on a scale of $0-9$ as proposed by the sponsor). The global evaluation is intended to view the improvement of the patient over the length of therapy. The overall severity score would essentially reevaluate signs and symptoms which have already been evaluated individually.

A small venicle group should also be included in order to assess the clinical effect of the excipients in the formulation.

Recommendation: The following general protocol is an example:
The study should be an investigator-blinded comparison of Desowen Cream (20 patients), Desowen Lotion (20 patients) and lotion venicle (10 patients). Parallel groups of patients with psoriasis are to be entered into the study for each treatment group in a randomized fashion. The patients should de comparable in terms of disease state, demographic characteristics, etc. The study should run for three weeks. Drug applications are to be three times daily with investigator evaluations prior to therapy and weekly thereafter.

The effectiveness parameters proposed by the sponsor are satisfactory, except that the "overall severity" rating of signs and symptoms should be replaced by a global evaluation using the following scale:

```
1 = "Cleared" - 100% clearance of signs, except for residual
    discolorations.
2 = "Marked Improvement" - between 76% and 99% clearance of signs
    monitored.
3= "Moderate Improvement" - 50% to 75% clearance of signs monitores.
4 = "Slight Improvement" - less than 50% clearance of signs
        monitored.
5 = "Exacerbation" - flare of sites monitored.
```

page 3

Data Reporting:
Data should be reported both in terms of weekly results and in terms of "endpoint"; that is, one set of data should view all patients at the last valid treatment visit. The endpoint evaluation is the best method of assessing the effect of patient dropouts. Signs and symptom scores should be reported individually and as a total score. Global evaluation should be reported as noted above. The qualifications of the investigator and the complete formulation of each test material should be submitted."

Please revise the protocol incorporating the above comments and resubmit it for our review. In addition, you are requested to contact Mr. David Rosen at 301-443-0193 to discuss the Eczema protocol.


HFD-232
DRosen

ALLERCREMEOMe
OWEN LABORATORIES
ALLERCREME HYPO-ALLERGENIC COSMETICS
DIVISIONS OF , -
DERMATOLOGICAL PRODUCTS OF TEXAS, INC.

CHRISTINE E. SHANK
Manager
Manager
Regulatory Affairs
CERTIFIED MAIL P469-888-946
Return Receipt Requested

## NBA ORIG AMENDMENT

June 6, 1988

Food and Drug Administration
Center for Drug Evaluation and Research
Division of Generic Drugs (HFN-230)
Attention: Document Control Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/Amendment
DesOwen ${ }^{\circledR}$ (Desonide) Lotion 0.05\%
Gentlemen:
Reference is made to your letter dated May 18, 1988 regarding the subject abbreviated new drug application.

Please find enclosed a response to each of the itemized review comments. In anticipation that the information provided will be found satisfactory, we hope to hear from the Agency soon regarding the other actions required for approval of this application.

Sincerely,


Christine E. Shank

## CES/db

## RECEIVED

JuN $8183^{\circ}$
general unties


OWEN/ALLERCREME.
6201 SOUTH FREEWAY FORT WORTH, TEXAS 76134 (817) 293-0450

AMDA 72-354

## Owen Laboratories

Attention: Christine E. Shank
6201 South Freeway
Fort North; Texas 76134
SN 81988

Dear Madam:
Reference is made to your abbreviated new drug application submitted pursuant to Section 505 of the Federal Food, Drug, and Cosmetic Act for Desomen (desonide) Lotion, 0.05\%.

In order for our laboratory to validate your submitted methodology, send the following materials to the address below:

Materials to be sent:

1. Finished dosage form - Send three times the amount needed to perform the required testing. Identify the lot number of the material sent.
2. A Certificate of Analysis for the lot sent.
3. Internal and Reference standards - Send three times the amount necessary to perform the required testing. (If you do not send the standard and the District doesn't have it, the analysis will be delayed).
4. Impurity Standards - send samples of standards for any impurities for which you test the dosage form.
5. Representative chromatograms and/or spectra (if applicable).
6. Completed Material Safety Data Sheet (Form OSHA 174).

## Address:

Food and Drug Administration
Attention: Jim Burke 1, HFR-5W160
3032 Bryan Street
Dallas, Texas 75204
These materials must be sent within 20 days of receiving this letter. if you cannot send these materials by this date, please notify the ANDA by letter. Send copies of all correspondence regarding the samples requested to the ANDA.

We recommend that you send the samples by registered mall/return receipt requested.

HFN-230, RPatel/BTArnwine R/D INITIALED BY RPatel/MSeife mstephens: 6/3/88 (505As) Samples



Division of Generic Drugs Office of Drug Standards Center for Drug Evaluation and Research

## Memorandum

Date

From

- 5/25/88

Scientific Coordinator Division of Field Science (HFC-141)

Subject Validation Assignment: ANDA \# 72-354
Drug: DESONIDE LOTION
Firm: OWEN CABORATORIES FORT WORTN, TY
To

## BRLUSG ARNWMK

(HFN-234)

The subject ANDA validation has been assigned. Please instruct the firm to send the appropriate samples, methods, and standards as soon as possible to the following laboratory(ies).

1. Laboratory: Dallas disferct

Tests: USP Methods:
(HFR- 5 $\omega / 60$ )

Firm's Methods: ASSAY $+P_{A R G}$ SOUS

Special equipment or reagents needed to be supplied by firm:
2. Laboratory:

Tests: USP Methods:
Firm's Methods:

Special equipment or reagents needed to be supplied by firm:

Thank you for your cooperation.


Thomas S. Savage
cc: R.M. PATEC (HFN-234)
Jim Burke (HFR- SWriso)
$\because$
$\therefore$

## OWEN LABORATORIES

DIVISIONS OF DERMATOLOGICAL PRODUCTS OF TEXAS, INC.<br>DIVISIONS OF

# ALLERCREME HYPO-ALLERGENIC COSMETICS 



CHRISTINE E. SHANK
Manager
Regulatory Affairs
CERTIFIED MAIL P469-888-957
May 6, 1988
Return Receipt Requested
Food and Drug Administration
Center for Drug Evaluation and Research
Division of Generic Drugs (HFN-230)
Attention: Document Control Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/Amendment
DesOwen ${ }^{\text {© }}$ (Desonide) Lotion 0.05\%
STABILITY DATA SUBMISSION
Gentlemen:
As a first order of consideration the applicant requests that, prior to initiating the review of ANDA 72-354 for DesOwen ${ }^{\text {® }}$ Lotion 0.05\%, the Agency give priority to completing the review of our pending application for DesOwen ${ }^{\otimes}$ (Desonide) Ointment 0.05\% (ANDA 71-425). The DesOwen Ointment application was submitted on July 14, 1986 and has undergone a complete and thorough Review, Comment, and Amendment process in the intervening time. Our last amendment was submitted on January 27, 1988 which should enable completion of all the review activities and allow for final approval of this application. We greatly appreciate the Agency's consideration of this request.

With regard to ANDA 72-354 for DesOwen (Desonide) Lotion 0.05\%, the applicant submits herewith in accordance with our commitment, the current available stability data from the three month accelerated studies described in the protocol found in Item 3.B.(9) of the original application submission. A summary of the studies conducted to date and a proposed expiry dating for initial production batches are provided on the following page.

Thank you for your time and consideration in review of these applications.

Sincerely,


Christine E. Shank $=$
CES/db Enclosure


## RECEIVED

MAY 12 19\%

## GENERIC DRUGS

Desk Copy: David Risen
(HFN-230) Room 17B-25

Owen Laboratories
Divisions of Dermatological Products of Texas. Inc. Attention: Christine Shank
6201 South Freeway
MAY 181988
Fort Worth, Texas 76134
Dear Madam:
Please refer to your abbreviated new drug application dated November 25, 1987, submitted pursuant to Section $505(\mathrm{j})$ of the Federal Food, Drug, and Cosmetic Act for Desowen (desonide) Lotion, 0.05\%.

He acknowledge recelpt of your communication dated December 11, 1987 amending the application.

The application is deficient and therefore not approvable under Section 505 of the Act for the following reasons:

1. It fails to define the "suitable" equipment used in the manufacturing instructions. Please identify each piece of equipment used throughout the manufacturing process in lieu of stating suitable.
2. It fails to include Certificates of Analysis for each of the raw materials used in the drug product. Please submit the Certificates of Analysis from either the vendor or the quality Control laboratory.
3. He await the submission of the challenge condition stability data and data from cycling studies.
4. We also await the evaluation of the vasoconstrictor study to show the bioequivalence to the reference product.
5. It is recommended that the potency of the drug product be expressed as a percent weight/volume rather that weight/weight. Please comment.
6. It falls to include in the labeling the following:

Carton: Not Satisfactory

1. fl OZ (rather than "FI. Oz.")
2. Usual dosage - 2 or 3 times (rather than " 2 to 3 times")
3. Professional Samples Carton

$$
\begin{aligned}
& \text { "... } 86^{\circ} \mathrm{F}\left(30^{\circ} \mathrm{C}\right) . \quad \text { Avoid Freezing." } \\
& \text { (not } \left.{ }^{(5)(4)} \mathrm{O}_{\mathrm{F}} \mathrm{~m}\right)
\end{aligned}
$$



1. See A. 1. ( 2 fl oz, 4 fl oz)
2. See A. 2.

Insert: Not Satisfactory

1. CLINICAL PHARMACOLOGY (Pharmacokinetics) Paragraph 3, line 4 - Corticosteroids...
2. HOW SUPPLIED

Revise "Storage" statement to read, "Store below $86^{\circ} \mathrm{F}$ ( $30^{\circ} \mathrm{C}$ ). Avoid Freezing."

Please revise the labels and labeling as above. We cannot request final printed copy until the question regarding expression of potency has been resolved.

The file is now closed. You are required to take an action described under 21 CFR 314.120 which will either amend or withdraw the application, or if you have substantial disagreement with our reasons for not approving this application, you may request an opportunity for a hearing.

Sincerely yours.


Director
Division of Generic Drugs Office of Drug Standards Center for Drug Evaluation and Research
$\qquad$

OWEN LABORATORIES
ALLERCREME HYPO-ALLERGENIC COSMETICS
DIVISIONS OF
DERMATOLOGICAL PRODUCTS OF TEXXAS, INC.

## CHRISTINE E. SHANK <br> Manager Regulator <br> Regulatory Affairs

CERTIFIED MAIL P-555-982-209
Return Receipt Requested
December 11, 1987
Food and Drug Administration
Center for Drugs and Biologics
Division of Generic Drugs
Attention: Document Control Room
HFN-230, Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: ANDA 72-354/Amendment
DesOwen ${ }^{(3}$ (Desonide) Lotion 0.05\%
Gentlemen:
Reference is made to a recent (December 2, 1987) telephone conversation with Mr. Robert Pollock, CSO, Generic Drugs Division, regarding the subject Abbreviated New Drug Application submitted on November 25, 1987.

In accordance with Mr. Pollock's request, we are amending our application to delete references to the Type I Drug Master File \#1229 for Dermatological Products of Texas, Inc. In place of the DMF reference, a revised "Manufacturer" section (Item 3.B.(4), page 03-0088) is provided with this submission. The revised section provides a general description of the manufacturing and laboratory facilities, identifies major equipment and lists the qualifications of the key management personnel.

Also provided are a new listing of all document references (addendum to Form 356h and a new page 03-0090 which have been revised to delete the DMF 1229 reference.

Sincerely yours,


Christine Shank
CES/db
Enclosure
aerator-
DATE:
12-2-87


Facilities to be Evaluated: (Name, full Address, DMF No., and responsibility) non $O$ log 1 5 now Dermatological products of lefad 1. applicant at 307 E. Josephine St., San Antonio, TX 78296 or 5303 Distribution Drive, 2. San Antonio, TX AC $10 / 14 / 87$

Other Information or Special Requests:


For HFN-320 Use Only:
CGMP Compliance Status of faff cilities Evaluated:
 ulstribution: Original and First Copy: HFN-320 Remaining Copies: Requesting Office Use

ANDA 72-354.

## nenymixio $=$

```
Owen Laboratories
Division of Dermmtological Prochcts of Texas, Inc.
Attentiont Hs. Chtrocine Shank
6201 South Preematy
Fort Worth, IE 76134
Dear Madam:
```

He acknowledge the receipt of your abbreviated new drug application submitted pursuant to section 505(j) of the Federal Food, Drug, and Cosmetic Act for the following:

NAME OP DRUG: DemOWen (Desonide) Lotion, $0.05 \%$
DATE OF APPLICATICN: NOvember 25, 1987
DATE OF RECEIPT: November 27, 1987
We will correspond with you further after w have had the opportunity to review the application.

Please identify any communications concerning this application with the ANDA number shown above.
Sincerely yours.
Director
Division of Generic Drugs.
Office of Drug Standards
Center for Drug Evaluation and Research

CC:
DUP HFN-230
Rosen/Patel
kl/12-03-87
Ack 1165b


## DEPARTMENT OF HEALTH \& HUMAN SERVICES

## Memorandum

BAFE: $\qquad$
TO : Division of Manufacturing \& Product Quality (HFN-320)


## ESTABLISHMENT EVALUATION REQUEST



Other Information or Special Requests: $\qquad$

For HFN-320 Use Only:

## Date Received

CGMP Compliance Status of Facilities Evaluated:
CSO: $\qquad$ Date Completed $\qquad$
istribution: Original and First Copy: HFN-320
Remaining Copies: Requesting Office Use

```
CHRISTINE E. SHANK N
Regulatory Affairs
CERTIFIED MAIL P-555-982-161
Return Receipt Requested
```

November 25, 1987

Food and Drug Administration
Center for Drugs and Biologics
Division of Generic Drugs
Attention: Document Control Room
HFN-230, Room 17B-20
5600 Fishers Lane
Rockville, Maryland 20857
RE: Abbreviated New Drug Application Submission for DesOwen ${ }^{\ominus}$ (Desonide) Lotion 0.05\%

Gentlemen:
Pursuant to the provisions of 21 CFR 314.55(c)(1) the applicant, Owen Laboratories Division of Dermatological Products of Texas, Inc., is pleased to submit herewith an abbreviated new drug application for DesOwen ${ }^{(1)}$ (Desonide) Lotion 0.05\%.

In accordance with the provisions of 21 CFR 314.55(d)(2), the applicant filed a Citizen Petition requesting a determination of ANDA suitability for the drug product. The petition was reviewed by the Agency and approved on September 10, 1987 thus satisfying the requirement under 21 CR $314.55(c)(1)$ that an ANDA will be accepted if the Agency has made a separate finding of suitability. Copies of the Petition approval letter are provided in this application immediately following this cover letter and in the Human Pharmacokinetics and Bioavailability Section.

The application provides a complete description of the subject drug product and adequate information with respect to the manufacturing and control operations to assure that the product meets all applicable standards for identity, strength, quality and purity. The applicant provides a protocol for conducting three month accelerated stability studies and a commitment to report the data as soon as it becomes available.


DesOwen Lotion ANDA Submission
Dermatological Products of Texas
Page 2

In addition, the applicant will perform two bioequivalency studies in accordance witf the conditions of the Petition approval letter. The applicant submits for review the protocols for a vasoconstrictor assay and a bio study in patients which compare the subject drug product, DesOwen Lotion 0.05\%, with the listed drug product, DesOwen ${ }^{\circledR}$ (Desonide) Cream 0.05\%.

The applicant extends appreciation for the time and consideration spent in review of this application and hopes to hear from the Agency soon with regard to the bioequivalency protocols.

Sincerely yours,


Christine Shank
CES/db
Enclosure

ANDA ADHINISTRATIVE CONTROL RECORD
ppicant ouso faterevteres

## anda checklist for cohpleteness and acceptability of the application



## Envi rompental Impact Analysis


[^0]:    is ${ }^{*}$

