CENTER FOR DRUG EVALUATION AND RESEARCH

Approval Package for:

APPLICATION NUMBER:

ANDA 075598

Name: Minoxidil Topical Solution USP, 5% (For Men)

Sponsor: L. Perrigo Company

Approval Date: June 13, 2001

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

ANDA 075598

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Chemistry Review(s)	**X**
Bioequivalence Review(s)	**X**
Statistical Review(s)	
Microbiology Review(s)	
Other Review(s)	
Administrative & Correspondence Documents	**X**

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

ANDA 075598

APPROVAL LETTER

ANDA 75-598

JUN 13 2001

L. Perrigo Company
Attention: Brian R. Schuster
515 Eastern Avenue
Allegan, MI 49010

Dear Sir:

This is in reference to your abbreviated new drug application dated March 8, 1999, submitted pursuant to Section 505(j) of the Federal Food, Drug, and Cosmetic Act (Act), for Minoxidil Topical Solution USP, 5% (For Men).

Reference is also made to the Tentative Approval letter issued by this office on July 24, 2000 and to your amendment dated May 7, 2001.

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 Over-The-Counter (OTC) labeling. Accordingly the application is approved. The Division of Bioequivalence has determined your Minoxidil Topical Solution USP, 5% (For Men) to be bioequivalent and, therefore, therapeutically equivalent to the listed drug (Rogaine® Extra Strength For Men, 5% of Pharmacia & Upjohn Co.).

Under Section 506A of the Act, certain changes in the conditions described in this abbreviated application require an approved supplemental application before the change may be made.

Post-marketing reporting requirements for this abbreviated application are set forth in 21 CFR 314.80-81 and 314.98. The Office of Generic Drugs should be advised of any change in the marketing status of this drug.

Sincerely yours,

Gary Buehler 6/13/01
Acting Director
Office of Generic Drugs
Center for Drug Evaluation and Research

cc: ANDA 75-598
Division File
Field Copy
HFD-610/R. West
HFD-210/B. Poole
HFD-330
HFD-205

Endorsements:
HFD-627/K.Woodland/ K.Woodland 6/8/01
HFD-627/P.Schwartz/ for P. Schwartz 6/8/01
HFD-617/M.Dillahunt/6/7/01 M. Dillahunt 6/11/01
HFD-613/L.Golson/ L. Golson 6/7/01
HFD-613/J.Grace/ JG 6/7/2001

Robert L. West
6/13/2001

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F/T by: DJ 6/7/01

APPROVAL

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

ANDA 075598

TENTATIVE APPROVAL LETTER

ANDA 75-598

JUL 24 2000

L. Perrigo Company
Attention: Brian R. Schuster
515 Eastern Avenue
Allegan, MI 49010

Dear Sir:

This is in reference to your abbreviated new drug application dated March 8, 1999, submitted pursuant to Section 505(j) of the Federal Food, Drug, and Cosmetic Act (Act), for Minoxidil Topical Solution USP, 5% (for Men).

Reference is also made to your amendments dated November 15, 1999; May 26 and July 5, 2000.

We have completed the review of this abbreviated application and have concluded that, based upon the information you have presented to date, the drug product is safe and effective for use as recommended in the submitted over-the-counter (OTC) labeling. Therefore, the application is **tentatively approved.** This determination is based upon information available to the Agency at this time, (i.e., information in your application and the status of current good manufacturing practices (CGMPs) of the facilities used in the manufacture and testing of the drug product), and is subject to change on the basis of new information that may come to our attention. The listed referenced drug product (RLD) upon which you have based your application, Rogaine® Extra Strength for Men, 5%, by Pharmacia & Upjohn Co., is subject to a period of new product (NP) exclusivity. Therefore, final approval may not be made effective pursuant to 21 U.S.C. 355(j)(5)(D) of the Act until the NP exclusivity period has expired, i.e., November 14, 2000.

Because the Agency is granting a tentative approval for this application, please submit an amendment at least 60 days (but not more than 90 days) prior to the date you believe your application will be eligible for final

approval. This amendment should identify changes, if any, in the conditions under which the product was tentatively approved, and should include updated information such as final printed labeling, chemistry, manufacturing, and controls data as appropriate. In order to reactivate the file to provide for final approval of this application, an amendment should be submitted even if none of these changes were made. Please be advised that this amendment should provide final printed copies of all labels and labeling prior to final approval. The Agency reserves the right to request further changes in the labels and/or labeling based upon subsequent change to the approved labeling of the listed drug or upon further review of the application prior to approval. This amendment should be designated clearly as a MINOR AMENDMENT in your cover letter. In addition to this amendment, the Agency may request at any time prior to the final date of approval that you submit an additional amendment containing the information described above.

Failure to submit either or, if requested, both amendments may result in rescission of the tentative approval status of your application, or may result in a delay in the issuance of the final approval letter.

Any significant changes in the conditions outlined in this abbreviated application as well as changes in the status of the manufacturing and testing facilities' compliance with current good manufacturing (CGMPs) are subject to Agency review before final approval of the application will be made.

The drug product that is the subject of this abbreviated application may not be marketed without final Agency approval under Section 505 of the Act. The introduction or delivery for introduction in to interstate commerce of this drug product before the final approval date is prohibited under Section 501 of the Act and 21 U.S.C. 331(d). Also, until the Agency issues the final approval letter, your product will not be deemed approved for marketing under 21 U.S.C. 355 and will not be listed in the "Approved Drug Products with Therapeutic Equivalence Evaluations" list (the "Orange Book"), published by the Agency. Should you believe that there are grounds for issuing the final approval letter prior to November 14, 2000, you should amend your application accordingly.

Prior to submitting an amendment, please contact Ms. Elaine Hu, Project Manager, at (301) 827-5848, for further instructions.

Sincerely yours,

Gary Buehler 7/24/00
Acting Director
Office of Generic Drugs
Center for Drug Evaluation and Research

cc: ANDA 75-598
Division File
FIELD COPY
HFD-610/R.West
HFD-92
HFD-210/B.Poole
HFD-330/
HFD-205/F.O.I.

Endorsements:

HFD-629/K.Woodland/ K Woodland 7/19/00
HFD-629/P.Schwartz/ 7/19/00
HFD-617/E.Hu, PM/7/19/00
HFD-613/L.Golson/Approve
HFD-613/J.Grace/concurs

Robert Rudolph 1/23/00

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F/T by: gp/7/20/00

Revised 7/20/2000

TENTATIVE APPROVAL

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

ANDA 075598

LABELING

Minoxidil Topical Solution, 5%

EXTRA STRENGTH FOR MEN

Active Ingredient: Minoxidil 5% w/v

Purpose: Hair Regrowth Treatment For Men.

Use:

- To regrow hair on top of the scalp (vertex only, see pictures on side of carton). Not intended for frontal baldness or receding hairline.
- It takes time to regrow hair. With this product, results may occur at 2 months with twice daily usage. For some men, it may take at least 4 months for results to be seen.
- The amount of hair regrowth is different for each person. This product will not work for all men.
- Clinical research in mostly white men aged 18-49 years with moderate degrees of hair loss showed that Minoxidil Topical Solution 5% for men provides more hair regrowth than Minoxidil Topical Solution 2%.
- If your amount of hair loss is more than that shown on the side of this carton, or your hair loss is on the front of the scalp, this product may not work.
- Continued use is necessary or hair loss will begin again. If you do not see hair regrowth in 4 months, stop use. In studies with Minoxidil Topical Solution 5% for men, hair regrowth has not been shown to last longer than 48 weeks of continuous treatment in large clinical trials.

Warnings:

Not For Use By Women: May grow facial hair. May be harmful if used during pregnancy or breast-feeding.

Do Not Use If You Are:

- a woman
- not sure of the reason for your hair loss
- under 18 years of age. Not for babies or children
- using other medicines on the scalp

Do Not Use If You Have:

- no family history of hair loss
- sudden and/or patchy hair loss
- a red, inflamed, infected, irritated or painful scalp

Stop Use and See A Doctor If You Get:

- chest pain, rapid heartbeat, faintness, or dizziness
- sudden, unexplained weight gain
- swollen hands or feet
- scalp irritation that continues or worsens

For external use only.

Avoid contact with eyes. In case of accidental contact, rinse with large amounts of cool tap water.

Keep this and all drugs out of the reach of children. Do not use on babies or children. In case of accidental ingestion, seek professional assistance or contact a Poison Control Center immediately.

Keep the carton and educational booklet. They contain important information.

For external use only. **For use by men only.**

Directions: Apply 1 mL with dropper or sprayer (6 sprays) 2 times a day directly onto the scalp in the hair loss area. Using more, or using more often will not improve results. Do not apply on other parts of the body.

INACTIVE INGREDIENTS: Alcohol, 30% v/v, propylene glycol, 50% v/v, and purified water.

This Package Contains:

- One 60 mL (2 FL OZ) bottle of Minoxidil Topical Solution 5% (lasts about 25-30 days).
- One child-resistant dropper applicator.
- One sprayer applicator (not child-resistant).
- This package also includes an educational booklet.

Store at room temperature 59° to 86°F (15° to 30°C). Keep tightly closed.

*Rogaine® is a registered trademark of Pharmacia & Upjohn Company.

MANUFACTURED BY PERRIGO® ALLEGAN, MI 49010 U.S.A.

Minoxidil Topical Solution, 5%

Hair Regrowth Treatment

(Read enclosed booklet before use)

EXTRA STRENGTH FOR MEN

Minoxidil Topical Solution, 5%

Hair Regrowth Treatment

EXTRA STRENGTH FOR MEN

Not for use by Women

Regrows More Hair
Results May Occur at 2 Months

Compare to Active Ingredient of Rogaine® Extra Strength For Men*

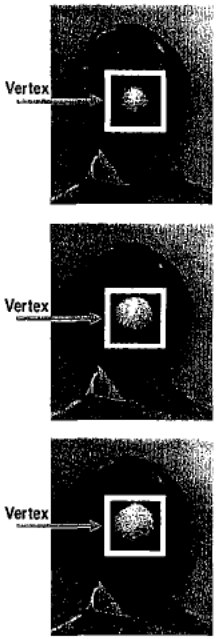
60mL (2 FL OZ)

0 70030 50339 0

38016 FA C1

(b) (4)

This product is for men who have a general thinning of hair on the top of the scalp (vertex only, as shown below). Not intended for frontal baldness or a receding hairline. This product has been shown to regrow hair in men with the following degrees of thinning hair or hair loss.



If men have more hair loss or hair loss in a place different than shown above, this product may not work.

{Lot Number and Expiration Dating will appear on carton}

Proposed Drug Labeling
Minoxidil Topical Solution 5%
Carton

Proposed Drug Labeling
Minoxidil Topical Solution 5%
Label

{Lot Number and Expiration Date will appear on label}

2. Next, place the tip of the dropper near the part of the scalp you want to treat and gently squeeze the bulb to release the medicine gradually. To prevent the medicine from running off the scalp, apply a small amount at a time.

B. Sprayer (see illustration in previous column)

The spray (B) applicator is NOT child-resistant. If you have small children, keep the original child-resistant cap and place it back on the bottle after each use.

1. Put the spray applicator into the bottle and twist it on firmly.

2. Next, holding the bottle upright, pump the spray attachment 6 times to get one full dose (1 mL). Be careful not to inhale the mist.

Do not use this product if you are:
- a woman
- not sure of the reason for your hair loss
- under 18 years of age. Not for babies and children.
- using other medicines on the scalp

Not for use by women: May grow facial hair. May be harmful if used during pregnancy or breast-feeding.

Do not use if you have:
- no family history of hair loss
- sudden and/or patchy hair loss
- a red, inflamed, infected, irritated or painful scalp

Stop use and see a doctor if you get:
- chest pain,a rapid heartbeat, faintness, or dizziness
- sudden, unexplained weight gain
- swollen hands or feet
- scalp irritation that continues or worsens

For external use only.

Avoid contact with eyes. In case of accidental contact, rinse with large amounts of cool tap water.

Keep this and all drugs out of the reach of children. Do not use on babies or children. In case of accidental ingestion, seek professional assistance or contact a Poison Control Center immediately.

What are the most common side effects with this product?
The most common side effects are itching and skin irritation of the treated area of the scalp. If scalp irritation continues, stop use and see a doctor. This product contains alcohol, which will cause burning or irritation of the eyes.
If this product accidently gets into eyes, rinse with large amounts of cool tap water.

Can this product produce unwanted hair growth?
Unwanted hair growth on the face and other parts of the body has been reported in women. But it is rare and reversible. If you develop unwanted hair, stop using this product. Over time, the unwanted hair, if caused by this product, will go away. You can take the following steps to decrease the chances of unwanted hair growth:
1) limit the application of this product only to the scalp;
2) if you use your hands to apply this product, wash your hands well immediately afterwards;
and 3) after your nighttime application of this product, allow enough drying time before going to bed (usually 2 to 4 hours).

Can I use this product for baldness or hair loss in babies or children?
No. This product must not be used to treat baldness or hair loss in babies and children.

If you have any other questions, ask your pharmacist.

Store at room temperature 59° to 86°F (15° to 30°C). Keep tightly closed.

MANUFACTURED BY
PERRIGO®
ALLEGAN, MI 49010 U.S.A.

18505 00 J1 10/99

IMPORTANT INFORMATION ABOUT

Minoxidil Topical Solution, 5%

Hair Regrowth Treatment

EXTRA STRENGTH® FOR MEN

What kind of shampoo should I use with this product?
If you wash your scalp before applying this product, use a mild shampoo.

Can I use hair sprays, mousses, conditioners, gels, etc.?
Hair sprays, spritz, or styling aids may be used on your hair while using this product. For best results, this product should be allowed to soak into the scalp before using any styling products. Try to develop a good routine of applying this product first, and then applying styling products and style as usual. Keep in mind that your best results will be seen with proper application.

Can I have my hair colored or permed or use hair relaxers while using this product?
We have no evidence that coloring or perming your hair or that the use of relaxers change the effect of this product. However, because the use of a permanent wave and hair color can cause scalp irritation on certain people, we recommend the following precautions:

1) To avoid possible scalp irritation, you should make sure all of this product has been washed off the hair and scalp before using color or perm chemicals.

2) For best results, do not apply this product on the same day that you use a chemical treatment on your hair.

3) Do not use this product for 24 hours after using any chemicals to make sure your scalp has not been irritated by the perm or color treatment. If no irritation occurs, continue use of this product as usual.

4) Simply restart your normal minoxidil topical solution, 5% routine. There is no need to use more of this product to make up for missed applications. Missing one day of this product will not affect your hair regrowth results.

Can I apply this product and wash my hair an hour later?
No. For this product to work best, you should allow it to stay on the scalp for about 4 hours before washing.

How to use the Applicators
Applicator Options

We have included two applicators that have been designed especially for men. You can choose whichever one works best for you.

A. Dropper
The child-resistant dropper can be useful for a broad range of hair styles or hair loss because it allows for easy application through the hair and directly onto the scalp.

B. Sprayer
This may be more useful for larger areas of hair loss (see illustrations).

Using the Applicators

Important: When applying this product, make sure the medicine comes in direct contact with the scalp. The medicine will not work if it is sprayed only on your hair and does not reach your scalp.

A. Dropper (see illustration above)

1. Squeeze the rubber bulb and put the dropper into the bottle. Release the bulb, allowing the dropper to fill to the 1 mL line. If the level of medicine is above the 1 mL line, squeeze the extra amount back into the bottle.

Minoxidil Topical Solution, 5%

EXTRA STRENGTH FOR MEN

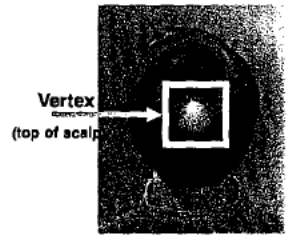
- Provides more hair regrowth than Minoxidil Topical Solution, 2%.
- Results may occur at 2 months with twice daily usage. For some men, it may take at least 4 months for results to be seen.

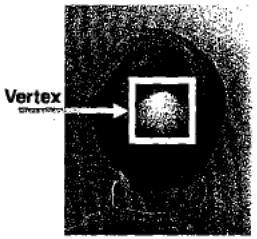
Please read this booklet carefully. It will help you understand how to use this product and what to expect from its use. If you have any questions after reading this booklet, or anytime while using this product, you should ask your health care professional.

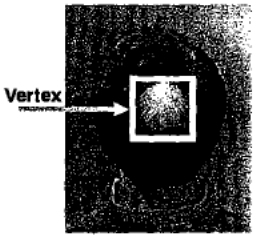
What is Minoxidil Topical Solution, 5%?
This product is a colorless liquid medication containing 5% minoxidil for use only on the scalp to help regrow hair in men.

Who may use this product?
This product is for use only by men. This product may be appropriate for you if you are a male at least 18 years old and experiencing gradually thinning hair or gradual hair loss on the top of the scalp (vertex only, as shown on the next page). It is not intended for frontal baldness or a receding hairline. The common inherited thinning or hair loss process begins slowly and may become noticeable only after years of gradual loss.
This product is for men with hair loss or thinning hair that begins on the vertex of the scalp. This product is more likely to regrow hair in men with hair loss in the range shown on the next page. If men have more hair loss than shown, this product may not work.

Many of those experiencing hair loss have other family members with gradual thinning hair or hair loss. **If you have no family history of gradual thinning hair or of gradual hair loss, or your hair loss is patchy, see your doctor.**







Who should NOT use this product?
- Women should not use this product because studies have shown it works no better in women than Minoxidil Topical Solution, 2%. Some women may also grow facial hair. In addition, this product may be harmful if used during pregnancy or breast-feeding.
- This product should not be used on babies or for children under 18 years old.
- This product will not prevent or improve hair loss which may occur with the use of some prescription and non-prescription medications, certain severe nutritional problems (very low body iron; too much vitamin A intake), low thyroid states (hypothyroidism), chemotherapy, or diseases which cause scarring of the scalp. Also, this product will not improve hair loss due to:
  - damage from the use of hair care products which cause scarring or deep burns of the scalp.
  - hair grooming methods such as cornrowing or ponytails which require pulling the hair tightly back from the scalp.

Do not use if you are not sure of the reason for your hair loss.

Minoxidil Topical Solution, 5% differs from regular strength for men products in the following ways:
- Contains 5% minoxidil (regular strength products contain 2%).
- Regrows more hair.
- With this product, results may occur at 2 months with twice daily use. For some men, it may take at least 4 months for results to be seen.
- Is more likely to cause scalp irritation. If scalp irritation continues or worsens, stop use and see a doctor. See Warnings on carton or bottle label.

Will this product work for me?
The amount of hair regrowth is different for each person. Not everyone will respond to this product. The response to this product cannot be predicted. It is unlikely anyone will be able to grow back all their hair.

However, to see your best results with this product, make sure you get the medicine directly to the scalp and apply it twice a day, everyday.
You may get better results if you have been losing your hair for a short period of time or have little hair loss.
However, for some men this product may not work.

How soon can I expect results from using this product?
Since normal hair usually grows only ½ to 1 inch per month, hair regrowth with this product also takes time.

Results may be seen as early as 2 months with twice daily use. For some men, it may take at least 4 months for results to be seen. If you do not see *any* results after 4 months, stop using this product.

When you first begin to use this product, your hair loss may increase temporarily for up to 2 weeks. This is likely a sign that you are getting rid of old hairs in order to regrow more new hairs. This temporary increase in hair loss is expected and is part of the process for how this product regrows hair. Remember, this increased hair loss is temporary. However, if it continues after two weeks, see your doctor.

If this product is working, what will the hair look like?
At first, hair growth is usually soft, downy, colorless hair (like peach fuzz). After further use, the new hairs should be the same color and thickness as the other hairs on your scalp.

How long do I need to use this product?
If you experience hair regrowth, continued use of this product is necessary or the hair loss will begin again. In studies with Minoxidil Topical Solution, 5% for men, hair regrowth has not been shown to last longer than 48 weeks of continuous treatment in large clinical trials.

What happens if I completely stop using this product? Will I keep the new hair?
Continuous use of this product is needed to maintain hair regrowth. If you stop using this product, you will lose your newly regrown hair in 3 to 4 months.

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I this product work for me?
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At first, hair growth is usually soft, downy, colorless hair (like peach fuzz). After further use, the new hairs should be the same color and thickness as the other hairs on your scalp.

How long do I need to use this product?
If you experience hair regrowth, continued use of this product is necessary or the hair loss will begin again. In studies with Minoxidil Topical Solution, 5% for men, hair regrowth has not been shown to last longer than 48 weeks of continuous treatment in large clinical trials.

What happens if I completely stop using this product? Will I keep the new hair?
Continuous use of this product is needed to maintain hair regrowth. If you stop using this product, you will lose your newly regrown hair in 3 to 4 months.

How do I use this product?
For best results, apply 1 mL with dropper or sprayer (6 sprays) 2 **times a day directly onto the scalp** in the hair loss area. Using more or using more often will not improve results. Each bottle should last about 25-30 days, if used as directed.

It is not necessary to use fingertips when applying this product. However, if you do use your fingertips, wash your hands well immediately afterwards. Allow time for this product to dry completely before wearing a hat, or lying on a pillow, etc. This product may cause staining of clothing or linens if damp on the scalp. When applying this product at night, be sure to allow 2 to 4 hours to dry completely. Never take this product by mouth or apply to other parts of the body.

When do I use this product?
Apply this product once in the morning and once at night. The nighttime application should occur 2 to 4 hours before going to bed to allow for drying. Each bottle should last about 25-30 days, if used as directed.

What if I miss a dose or forget to use this product?
If you miss one or two daily doses of this product, just continue with your next dose. You should not make up for missed doses.

Can I use this product more than twice a day? Will it work faster, better?
No. This product will not work faster or better if used more than two times a day. Studies have been carefully conducted to determine the correct amount of minoxidil topical solution, 5% needed to get the best results. More frequent use or larger doses have not been shown to speed up hair growth and may increase your chance of side effects.

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

ANDA 075598

LABELING REVIEWS

REVIEW OF PROFESSIONAL LABELING
DIVISION OF LABELING AND PROGRAM SUPPORT
LABELING REVIEW BRANCH

ANDA Number: 75-598 Date of Submission: March 8, 1999

Applicant's Name: Perrigo Company

Established Name: Minoxidil Topical Solution USP, 5% (For Men)

Labeling Deficiencies:

1. GENERAL COMMENT

   "Minoxidil topical solution" is now the subject of a USP monograph. We encourage you to include "USP" with the established name on the container label, the carton labeling and in the insert title (i.e., Minoxidil Topical Solution USP, 5%).

2. CONTAINER (60 mL)

   Satisfactory in draft

3. CARTON (1 x 60 mL)

   a. Use

      Revise the 4th, 5th, and 6th bullets to include "For Men" immediately after the established name and strength of the products.

   b. This Package Contains

      Include pictorials of the applicators.

4. INSERT

   a. How long do I need to use this product?

      Include "for men" immediately after the established name and strength of the product.

   b. Can I have my hair colored or permed or use hair relaxers while using this product?

      Make "precautions" plural in the second sentence of the first paragraph.

   c. How to use the Applicators (Sprayer)

      Give the location of the illustrations you are referring the user to.

Please revise your labeling, as instructed above, and submit 4 draft copies for a tentative approval. If draft labeling is provided, please be advised that you will be required to submit 12 final printed copies of all labels and labeling at least 60 days prior to full approval of this application. In addition, you should be aware that color and other factors (print size, prominence, etc.) in final printed labeling could be found unacceptable and that further changes might be requested prior to approval.

Prior to approval, it may be necessary to further revise your labeling subsequent to approved changes for the reference listed drug. We suggest that you routinely monitor the following web site for any approved changes –

http://www.fda.gov/cder/ogd/rld/labeling_review_branch.html

To facilitate review of your next submission, and in accordance with 21 CFR 314.94(a)(8)(iv), please provide a side-by-side comparison of your proposed labeling with your last submission with all differences annotated and explained.

Robert L. West, M.S., R.Ph.
Director
Division of Labeling and Program Support
Office of Generic Drugs
Center for Drug Evaluation and Research

Labeling(continued)	Yes	No	N.A.
Does RLD make special differentiation for this label? (i.e., Pediatric strength vs Adult; Oral Solution vs Concentrate, Warning Statements that might be in red for the NDA)		X	
Is the Manufactured by/Distributor statement incorrect or falsely inconsistent between labels and labeling? Is "Jointly Manufactured by...", statement needed?		X	
Failure to describe solid oral dosage form identifying markings in HOW SUPPLIED?			X
Has the firm failed to adequately support compatibility or stability claims which appear in the insert labeling? Note: Chemist should confirm the data has been adequately supported.			
Scoring: Describe scoring configuration of RLD and applicant (page #) in the FTR			
Is the scoring configuration different than the RLD?			X
Has the firm failed to describe the scoring in the HOW SUPPLIED section?			X
Inactive Ingredients: (FTR: List page # in application where inactives are listed)			
Does the product contain alcohol? If so, has the accuracy of the statement been confirmed?	X		
Do any of the inactives differ in concentration for this route of administration?		X	
Any adverse effects anticipated from inactives (i.e., benzyl alcohol in neonates)?		X	
Is there a discrepancy in inactives between DESCRIPTION and the composition statement?		X	
Has the term "other ingredients" been used to protect a trade secret? If so, is claim supported?		X	
Failure to list the coloring agents if the composition statement lists e.g., Opacode, Opaspray?			X
Failure to list gelatin, coloring agents, antimicrobials for capsules in DESCRIPTION?			X
Failure to list dyes in imprinting inks? (Coloring agents e.g., iron oxides need not be listed)			X
USP Issues: (FTR: List USP/NDA/ANDA dispensing/storage recommendations)			
Do container recommendations fail to meet or exceed USP/NDA recommendations? If so, are the recommendations supported and is the difference acceptable?		X	
Does USP have labeling recommendations? If any, does ANDA meet them?			X
Is the product light sensitive? If so, is NDA and/or ANDA in a light resistant container?		X	
Failure of DESCRIPTION to meet USP Description and Solubility information? If so, USP information should be used. However, only include solvents			

appearing in innovator labeling.			
Bioequivalence Issues: (Compare bioequivalency values: insert to study. List Cmax, Tmax, T 1/2 and date study acceptable)			
Insert labeling references a food effect or a no-effect? If so, was a food study done?		X	
Has CLINICAL PHARMACOLOGY been modified? If so, briefly detail where/why.		X	
Patent/Exclusivity Issues?: FTR: Check the Orange Book edition or cumulative supplement for verification of the latest Patent or Exclusivity. List expiration date for all patents, exclusivities, etc. or if none, please state.			

NOTES/QUESTIONS TO THE CHEMIST:

1. The labeling states that there is 30% alcohol (v/v) in this product. Is this an accurate statement?

2. Please verify that 6 sprays deliver 1 mL of solution.

3. Please note that a final rule was issued in November 1998 titled "Requirements for Child-Resistant Packaging; Minoxidil Preparations With More Than 14 mg of Minoxidil Per Package". According to this rule, all applicators accompanying this product that can replace the original closure of the packaging must also be child-resistant. Since such closures were not available at the time this rule was passed, firms were given a year to comply, however, Perrigo has requested a stay until such time they are available.

FOR THE RECORD:

1. Labeling review based on the labeling for Rogaine Extra Strength for Men, 5% (NDA 20-834) – Pharmacia and Upjohn Consumer Healthcare; approved November 14, 1997.

2. Packaging
   Rogaine packages its extra strength product in 1 x 60 mL and 2 x 60 mL cartons.

   Perriogo is only proposing to package its product in 1 x 60 mL HDPE bottles with CR continuous thread caps and CR dropper caps. The sprayer is not child resistant at this time but must become so once such closures become available.

3. Labeling
   Minoxidil is now the subject of a USP monograph. Perrigo has been asked to include "USP" with its established name.

4. Inactive ingredients
   There does not appear to be discrepancies between the labeling and the C&C statements.

5. USP Issues
   USP – Preserve in tight containers.
   RLD – Store at CRT, 20-25°C (68-77°F).
   ANDA – Store at room temperature, 59-86°F (15-30°C). Keep tightly closed.

6. Bio Issues – Waiver granted 4/21/99.

7. Patents/Exclusivities – This product has marketing exclusivity protection until November 14, 2000.

Date of Review:
September 20, 1999

Date of Submission:
March 8, 1999

Primary Reviewer:

Date:
9/20/99

Team Leader:

Date:
9/21/1999

cc:

ANDA: 75-598
DUP/DIVISION FILE
HFD-613/LGolson/JGrace (no cc)
V:\FIRMSNZ\PERRIGO\LTRS&REV\75598na1.l
Review

APPROVAL SUMMARY

REVIEW OF PROFESSIONAL LABELING
DIVISION OF LABELING AND PROGRAM SUPPORT
LABELING REVIEW BRANCH

ANDA Number: 75-598 Date of Submission: November 15, 1999 (Amendment)

Applicant's Name: Perrigo Company

Established Name: Minoxidil Topical Solution USP, 5% (For Men)

APPROVAL SUMMARY (List the package size, strength(s), and date of submission for approval):

Do you have 12 Final Printed Labels and Labeling? Yes

Container Labels: (60 mL) – Satisfactory as of November 15, 1999 submission

Carton Labeling: (1 x 60 mL) – Satisfactory as of November 15, 1999 submission

Patient Package Insert Labeling: Satisfactory as of November 15, 1999 submission

BASIS OF APPROVAL:

Was this approval based upon a petition? No

What is the RLD on the 356(h) form: Rogaine Extra Strength for Men

NDA Number: 20-834

NDA Drug Name: Minoxidil Topical Solution, 5%

NDA Firm: Pharmacia and Upjohn Consumer Healthcare

Date of Approval of NDA Insert: November 14, 1997

Has this been verified by the MIS system for the NDA? Yes

Was this approval based upon an OGD labeling guidance? No

Basis of Approval for the Container Labels: Side-by-side comparison

Basis of Approval for the Carton Labeling: Side-by-side comparison

REVIEW OF PROFESSIONAL LABELING CHECK LIST

Established Name	Yes	No	N.A.
Different name than on acceptance to file letter?		X	
Is this product a USP item? If so, USP supplement in which verification was assured. USP 23	X		
Is this name different than that used in the Orange Book?		X	
If not USP, has the product name been proposed in the PF?			X
Error Prevention Analysis			
Has the firm proposed a proprietary name? If yes, complete this subsection.		X	
Do you find the name objectionable? List reasons in FTR, if so. Consider: Misleading? Sounds or looks like another name? USAN stem present? Prefix or Suffix present?			X
Has the name been forwarded to the Labeling and Nomenclature Committee? If so, what were the recommendations? If the name was unacceptable, has the firm been notified?			X
Packaging			
Is this a new packaging configuration, never been approved by an ANDA or NDA? If yes, describe in FTR.		X	
Is this package size mismatched with the recommended dosage? If yes, the Poison Prevention Act may require a CRC.	X		
Does the package proposed have any safety and/or regulatory concerns?	X		
If IV product packaged in syringe, could there be adverse patient outcome if given by direct IV injection?			X
Conflict between the DOSAGE AND ADMINISTRATION and INDICATIONS sections and the packaging configuration?		X	
Is the strength and/or concentration of the product unsupported by the insert labeling?		X	
Is the color of the container (i.e. the color of the cap of a mydriatic ophthalmic) or cap incorrect?			X
Individual cartons required? Issues for FTR: Innovator individually cartoned? Light sensitive product which might require cartoning? Must the package insert accompany the product?	X		
Are there any other safety concerns?	X		
Labeling			
Is the name of the drug unclear in print or lacking in prominence? (Name should be the most prominent information on the label).		X	
Has applicant failed to clearly differentiate multiple product strengths?		X	
Is the corporate logo larger than 1/3 container label? (No regulation - see ASHP guidelines)		X	
Labeling(continued)	Yes	No	N.A.
Does RLD make special differentiation for this label? (i.e., Pediatric strength vs Adult; Oral Solution vs Concentrate, Warning Statements that might be in red for the NDA)		X	
Is the Manufactured by/Distributor statement incorrect or falsely inconsistent between labels and labeling? Is "Jointly Manufactured by...", statement needed?		X	

Failure to describe solid oral dosage form identifying markings in HOW SUPPLIED?			X
Has the firm failed to adequately support compatibility or stability claims which appear in the insert labeling? Note: Chemist should confirm the data has been adequately supported.			
Scoring: Describe scoring configuration of RLD and applicant (page #) in the FTR			
Is the scoring configuration different than the RLD?			X
Has the firm failed to describe the scoring in the HOW SUPPLIED section?			X
Inactive Ingredients: (FTR: List page # in application where inactives are listed)			
Does the product contain alcohol? If so, has the accuracy of the statement been confirmed?	X		
Do any of the inactives differ in concentration for this route of administration?		X	
Any adverse effects anticipated from inactives (i.e., benzyl alcohol in neonates)?		X	
Is there a discrepancy in inactives between DESCRIPTION and the composition statement?		X	
Has the term "other ingredients" been used to protect a trade secret? If so, is claim supported?		X	
Failure to list the coloring agents if the composition statement lists e.g., Opacode, Opaspray?			X
Failure to list gelatin, coloring agents, antimicrobials for capsules in DESCRIPTION?			X
Failure to list dyes in imprinting inks? (Coloring agents e.g., iron oxides need not be listed)			X
USP Issues: (FTR: List USP/NDA/ANDA dispensing/storage recommendations)			
Do container recommendations fail to meet or exceed USP/NDA recommendations? If so, are the recommendations supported and is the difference acceptable?		X	
Does USP have labeling recommendations? If any, does ANDA meet them?			X
Is the product light sensitive? If so, is NDA and/or ANDA in a light resistant container?		X	
Failure of DESCRIPTION to meet USP Description and Solubility information? If so, USP information should be used. However, only include solvents appearing in innovator labeling.			
Bioequivalence Issues: (Compare bioequivalency values: insert to study. List Cmax, Tmax, T 1/2 and date study acceptable)			
Insert labeling references a food effect or a no-effect? If so, was a food study done?		X	
Has CLINICAL PHARMACOLOGY been modified? If so, briefly detail where/why.		X	
Patent/Exclusivity Issues?: FTR: Check the Orange Book edition or cumulative supplement for verification of the latest Patent or Exclusivity. List expiration date for all patents, exclusivities, etc. or if none, please state.			

NOTES/QUESTIONS TO THE CHEMIST:

1. The labeling states that there is 30% alcohol (v/v) in this product. Is this an accurate statement?

2. Please verify that 6 sprays deliver 1 mL of solution.

3. Please note that a final rule was issued in November 1998 titled "Requirements for Child-Resistant Packaging; Minoxidil Preparations With More Than 14 mg of Minoxidil Per Package". According to this rule, all applicators accompanying this product that can replace the original closure of the packaging must also be child-resistant. Since such closures for the sprayer were not available at the time this rule was passed, firms were given a year to comply. However, Perrigo has requested a stay until such time they are available.

K Woodland

FOR THE RECORD:

1. **Labeling review based on the labeling for Rogaine Extra Strength for Men, 5% (NDA 20-834) – Pharmacia and Upjohn Consumer Healthcare; approved November 14, 1997.**

2. **Packaging**
   Rogaine packages its extra strength product in 1 x 60 mL and 2 x 60 mL cartons.

   Perrigo is only proposing to package its product in 1 x 60 mL HDPE bottles with CR continuous thread caps and CR dropper caps. The sprayer is not child resistant at this time but must become so once such closures become available, to comply with a final rule issued in November 1998.

3. **Labeling**
   Minoxidil is now the subject of a USP monograph. Perrigo was asked to include "USP" with its established name, but declined to do so, as is their usual practice.

4. **Inactive ingredients**
   There does not appear to be discrepancies between the labeling and the C&C statements.

5. **USP Issues**
   USP – Preserve in tight containers.
   RLD – Store at CRT, 20-25°C (68-77°F).
   ANDA – Store at room temperature, 59-86°F (15-30°C). Keep tightly closed.

6. **Bio Issues – Waiver granted 4/21/99.**

7. **Patents/Exclusivities – This product has marketing exclusivity protection until November 14, 2000.**

Date of Review:
April 13, 2000

Date of Submission:
November 15, 1999 (Amendment)

Primary Reviewer:
Lillie N Golson

Date:
4/13/00

Secondary Reviewer:

Date:

Team Leader:
John Grace

Date:
5-8-2000

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cc:

ANDA: 75-598
DUP/DIVISION FILE
HFD-613/LGolson/JGrace (no cc)
V:\FIRMSNZ\PERRIGO\LTRS&REV\75598ap.l
Review

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

ANDA 075598

CHEMISTRY REVIEWS

1. CHEMISTRY REVIEW NO. 1

2. ANDA # 75-598

3. NAME AND ADDRESS OF APPLICANT

L. Perrigo Company
112 Water Street
Allegan, MI 49010

4. LEGAL BASIS FOR SUBMISSION

"In the opinion and to the best knowledge of L. Perrigo Company there are no patents that claim the listed drug product referred to in this application or that claim a use of the listed drug product." There is market exclusivity for the listed drug product Rogaine Extra Strength minoxidil 5% topical solution until November 114, 2000. Perrigo will not market the product before November 14, 2000.

5. SUPPLEMENT(s)

N/A

6. PROPRIETARY NAME

None

7. NONPROPRIETARY NAME

Minoxidil Solution

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

N/A

9. AMENDMENTS AND OTHER DATES:

Original submission March 8, 1999

10. PHARMACOLOGICAL CATEGORY

Hair growth

11. Rx or OTC

OTC

12. RELATED IND/NDA/DMF(s)

DMF #	Manufacturer	Component
[redacted] (b) (4)		

13. DOSAGE FORM

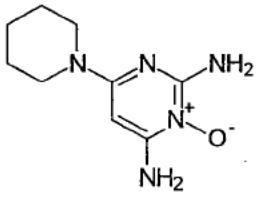
Solution

14. POTENCY

5%

15. CHEMICAL NAME AND STRUCTURE

2,4-Pyrimidinediamine, 6-(1-piperidinyl)-, 3-oxide.
$C_9H_{15}N_5O$.



16. RECORDS AND REPORTS

None

17. COMMENTS

The application was found deficient.

18. CONCLUSIONS AND RECOMMENDATIONS

The application is not approvable.

19. REVIEWER: Kathy P. Woodland

DATE COMPLETED: July 27, 1999

Following this page, 10 pages withheld in full (b)(4)

Comments:

ACTION CODES: (1) DMF Reviewed. Other codes indicate why the DMF was not reviewed, as follows:

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

Page __ of __. Kathy P. Woodland — Kathy P. Woodland 9/21/99

Reviewer — Signature — Date

1. CHEMISTRY REVIEW NO. 2

2. ANDA # 75-598

3. NAME AND ADDRESS OF APPLICANT

L. Perrigo Company
112 Water Street
Allegan, MI 49010

4. LEGAL BASIS FOR SUBMISSION

"In the opinion and to the best knowledge of L. Perrigo Company there are no patents that claim the listed drug product referred to in this application or that claim a use of the listed drug product." There is market exclusivity for the listed drug product Rogaine Extra Strength minoxidil 5% topical solution until November 14, 2000. Perrigo will not market the product before November 14, 2000.

5. SUPPLEMENT(s)

N/A

6. PROPRIETARY NAME

None

7. NONPROPRIETARY NAME

Minoxidil Solution

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

N/A

9. AMENDMENTS AND OTHER DATES:

Original submission	March 8, 1999
Amendment	November 15, 1999

10. PHARMACOLOGICAL CATEGORY

Hair growth

11. Rx or OTC

OTC

12. RELATED IND/NDA/DMF(s)

DMF #	Manufacturer	Component
[redacted] (b) (4)		

(b) (4)

13. DOSAGE FORM

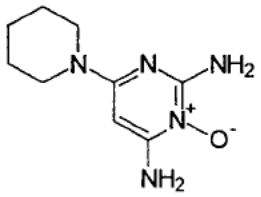
Solution

14. POTENCY

5%

15. CHEMICAL NAME AND STRUCTURE

2,4-Pyrimidinediamine, 6-(1-piperidinyl)-, 3-oxide.
$C_9H_{15}N_5O$.



16. RECORDS AND REPORTS

None

17. COMMENTS

The application was found deficient.

18. CONCLUSIONS AND RECOMMENDATIONS

The application is not approvable.

19. REVIEWER: DATE COMPLETED:

Kathy P. Woodland March 30, 2000

Following this page, 10 pages withheld in full (b)(4)

Comments:

ACTION CODES: (1) DMF Reviewed. Other codes indicate why the DMF was not reviewed, as follows:

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

Page -- of -- . Kathy P. Woodland Kathy P. Woodland 5/3/00

Reviewer Signature Date

1. CHEMISTRY REVIEW NO. 3

2. ANDA # 75-598

3. NAME AND ADDRESS OF APPLICANT

L. Perrigo Company
112 Water Street
Allegan, MI 49010

4. LEGAL BASIS FOR SUBMISSION

"In the opinion and to the best knowledge of L. Perrigo Company there are no patents that claim the listed drug product referred to in this application or that claim a use of the listed drug product." There is market exclusivity for the listed drug product Rogaine Extra Strength minoxidil 5% topical solution until November 14, 2000. Perrigo will not market the product before November 14, 2000.

5. SUPPLEMENT(s)

N/A

6. PROPRIETARY NAME

None

7. NONPROPRIETARY NAME

Minoxidil Solution

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

N/A

9. AMENDMENTS AND OTHER DATES:

Original submission	March 8, 1999
Amendment	November 15, 1999
Amendment	May 26, 2000
Amendment	July 5, 2000

10. PHARMACOLOGICAL CATEGORY

Hair growth

11. Rx or OTC

OTC

12. RELATED IND/NDA/DMF(s)

DMF #	Manufacturer	Component
[redacted] (b) (4)		

(b) (4)

13. DOSAGE FORM

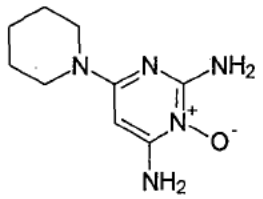
Solution

14. POTENCY

5%

15. CHEMICAL NAME AND STRUCTURE

2,4-Pyrimidinediamine, 6-(1-piperidinyl)-, 3-oxide.
$C_9H_{15}N_5O$.



16. RECORDS AND REPORTS

None

17. COMMENTS

None

18. CONCLUSIONS AND RECOMMENDATIONS

The application is TENTATIVELY approvable.

19. REVIEWER: Kathy P. Woodland

DATE COMPLETED: July 5, 2000

Following this page, 10 pages withheld in full (b)(4)

38. Chemistry Comments to be Provided to the Applicant

ANDA: 75-598 APPLICANT: L. Perrigo Company

DRUG PRODUCT: Minoxidil Topical Solution USP, 5%

The deficiencies presented below represent FAX deficiencies.

A. Deficiencies:

1. [redacted] (b) (4)

2.

Sincerely yours,

5/16/00

Rashmikant M. Patel, Ph.D.
Director
Division of Chemistry I
Office of Generic Drugs
Center for Drug Evaluation and Research

cc: ANDA 75-598
ANDA DUP
Division File
Field Copy

Endorsements:

HFD-627/K.Woodland/5-3-00 K Woodland 5/16/00
HFD-627/P.Schwartz, Ph.D./5-3-00 P Schwartz 5/16/00
HFD-617/E. Hu, PM/5-9-00 5/11/00
V:\FIRMSNZ\PERRIGO\LTRS&REV\75598.RV2.DOC
F/T by: bc/5-10-00

CHEMISTRY REVIEW - NOT APPROVABLE - FAX

-

1. CHEMISTRY REVIEW NO. 4

2. ANDA # 75-598

3. NAME AND ADDRESS OF APPLICANT

L. Perrigo Company
112 Water Street
Allegan, MI 49010

4. LEGAL BASIS FOR SUBMISSION

"In the opinion and to the best knowledge of L. Perrigo Company there are no patents that claim the listed drug product referred to in this application or that claim a use of the listed drug product." There is market exclusivity for the listed drug product Rogaine Extra Strength minoxidil 5% topical solution until November 14, 2000. Perrigo will not market the product before November 14, 2000.

5. SUPPLEMENT(s)

N/A

6. PROPRIETARY NAME

None

7. NONPROPRIETARY NAME

Minoxidil Solution

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

N/A

9. AMENDMENTS AND OTHER DATES:

Original submission	March 8, 1999
Amendment	November 15, 1999
Amendment	May 26, 2000
Amendment	July 5, 2000
Amendment	September 8,2000

10. PHARMACOLOGICAL CATEGORY

Hair growth

11. Rx or OTC

OTC

12. RELATED IND/NDA/DMF(s)

DMF #	Manufacturer	Component
[redacted]		

(b) (4)

(b) (4)

13. DOSAGE FORM

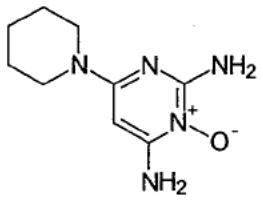
Solution

14. POTENCY

5%

15. CHEMICAL NAME AND STRUCTURE

2,4-Pyrimidinediamine, 6-(1-piperidinyl)-, 3-oxide.
$C_9H_{15}N_5O$.



16. RECORDS AND REPORTS

None

17. COMMENTS

No changes since TA. (7/24/00)

18. CONCLUSIONS AND RECOMMENDATIONS

The application is approvable.

19. REVIEWER:

Kathy P. Woodland

DATE COMPLETED:

October 27, 2000

Following this page, 10 pages withheld in full (b)(4)

cc: ANDA 75-598
ANDA DUP
Division File
Field Copy

Endorsements:

HFD-627/K.Woodland/ KWoodland 11/7/00
HFD-627/P.Schwartz, Ph.D./ PS 11/7/00
V:\FIRMSNZ\PERRIGO\LTRS&REV\75598.RV4.DOC
F/T by: gp/11/5/00

CHEMISTRY REVIEW - APPROVABLE

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

ANDA 075598

BIOEQUIVALENCE REVIEWS

Minoxidil Topical Solution
5 %
ANDA #75-598
Reviewer: Carol Y. Kim
v:\firmsnz\perrigo\ltrs&rev\75598w.399

L. Perrigo Company
Allegan, Michigan
Submission Date:
March 8, 1999

REVIEW OF A WAIVER REQUEST

I. Background

1. The firm has requested a waiver of an in vivo bioequivalence study requirement for its proposed product, Minoxidil Topical Solution, 5%. The reference listed product is Rogaine[R] Extra Strength for Men, 5% Minoxidil Topical Solution, manufactured by Pharmacia and Upjohn.

2. Minoxidil Topical Solution is an OTC drug product which is indicated for the hair regrowth treatment on top of the scalp for men.

3. The test and the reference listed product are both topical solutions.

II. Formulation Comparison

The test and reference formulations are compared as shown below:

Minoxidil Topical Solution, 5%			Rogaine[R] Extra Strength Minoxidil 5% Topical Solution*
Qualitative	Percent composition	mg/ml	Percent composition
Minoxidil	5 % w/v	50.00	5 % w/v
Alcohol	30 % v/v	(b) (4)	
Propylene glycol	50 % v/v		50 % v/v
Water, purified	Quantity sufficient		Quantity sufficient
Total		985	

* From COMIS database

III. Comments

1. The test product, Minoxidil Topical Solution, 5%, contains the same active ingredient in the same concentration and dosage form as the reference product, Rogaine[R] Extra Strength for Men, 5% Minoxidil Topical Solution. The test formulation does not

contain any inactive ingredients known to significantly affect absorption of the active ingredient or drug moieties.

2. A waiver is granted under 21 CFR 320.22 (b) (3), which states that the drug product is (i) a solution for application to the skin, (ii) contains an active drug ingredient or therapeutic moiety in the same dosage form as a drug product that is the subject of an approved full NDA, and (iii) contains no inactive ingredient or other change in formulation from the drug product that is the subject of the approved full new drug application that may significantly affect absorption of the active drug ingredient or active moiety.

IV. Recommendation

The Division of Bioequivalence agrees that the information submitted by L. Perrigo Company on its drug product, Minoxidil Topical Solution, 5%, falls under 21 CFR section 320.22 (b) (3) of the Bioavailability/Bioequivalence Regulations. The waiver of an in vivo bioequivalence study for the drug is granted. The Division of Bioequivalence deems the test product, Minoxidil Topical Solution, 5%, bioequivalent to the reference product, Rogaine^{R} Extra Strength for Men, 5% Minoxidil Topical Solution, manufactured by Pharmacia and Upjohn.

The firm should be informed of the recommendation.

Carol Y. Kim, Pharm.D.
Division of Bioequivalence
Review Branch III

JSKheridan

for RD INITIALLED BY BDAVIT
FT INITIALLED BY BDAVIT Date: 4/8/99

Concur Dale P. Conner Date: 4/21/99
Dale P. Conner, Pharm.D.
Director
Division of Bioequivalence

BIOEQUIVALENCY COMMENTS TO BE PROVIDED TO THE APPLICANT

ANDA: 75-598 APPLICANT: L. Perrigo Company

DRUG PRODUCT: Minoxidil Topical Solution, 5%

The Division of Bioequivalence has completed its review and has no further questions at this time.

Please note that the bioequivalency comments provided in this communication are preliminary. These comments are subject to consideration of the chemistry, manufacturing and controls, microbiology, labeling, or other scientific or regulatory issues. Please be advised that these reviews may result in the need for additional bioequivalency information and/or studies, or may result in a conclusion that the proposed formulation is not approvable.

Sincerely yours,

Dale P. Conner, Pharm.D.
Director
Division of Bioequivalence
Office of Generic Drugs
Center for Drug Evaluation and Research

CC: ANDA #75-598
ANDA DUPLICATE
DIVISION FILE
HFD-651/Bio Drug File
HFD-658/C. Kim

Endorsements: (Draft and final with dates)
HFD-658/Reviewer C. Kim
HFD-658/Bio Team Leader B. Davit JSK 4/8/99
HFD-617/Project Manager
HFD-650/D. Conner 4/21/99

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BIOEQUIVALENCY-ACCEPTABLE Submission date: 3/8/99

1. WAIVER (WAI) **Strength: 5%**
Outcome: AC

Outcome decisions: AC-Acceptable

WinBio Comments: A waiver is granted

(3)

OFFICE OF GENERIC DRUGS

DIVISION OF BIOEQUIVALENCE

ANDA # 75-598 SPONSOR: L. Perrigo Company

DRUG & DOSAGE FORM: Minoxidil Topical Solution

STRENGTH (S): 5%

TYPE OF STUDY: SD SDF MULT OTHER X

STUDY SUMMARY: N/A

Formulation is acceptable, waiver is granted

PRIMARY REVIEWER: Carol Y. Kim BRANCH: 3
INITIAL: Carol Y. Kim DATE: 4/8/99

for TEAM LEADER: Barbara M. Davit BRANCH: 3
INITIAL: J. S. Khorakiwala DATE: 4/18/99

DIRECTOR
DIVISION OF BIOEQUIVALENCE
INITIAL: Gail Garner DATE: 4/21/99

DIRECTOR
OFFICE OF GENERIC DRUGS
INITIAL: _____ DATE: _____

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

ANDA 075598

ADMINISTRATIVE and CORRESPONDENCE DOCUMENTS

ANDA 75-598

L. Perrigo Company
Attention: Brian R. Schuster
117 Water Street
Allegan, Michigan 49010

MAR 26 1999

Dear Sir:

We acknowledge the receipt of your abbreviated new drug application submitted pursuant to Section 505(j) of the Federal Food, Drug and Cosmetic Act.

NAME OF DRUG: Minoxidil Topical Solution USP, 5%

DATE OF APPLICATION: March 8, 1999

DATE (RECEIVED) ACCEPTABLE FOR FILING: March 10, 1999

We will correspond with you further after we have had the opportunity to review the application.

Please identify any communications concerning this application with the ANDA number shown above.

Should you have questions concerning this application, contact:

Joseph Buccine
Project Manager
(301) 827-5848

Sincerely yours,

Harvey A. Greenberg for

Robert L. West, M.S., R.Ph.
Director
Division of Labeling and Program Support
Office of Generic Drugs
Center for Drug Evaluation and Research

cc: ANDA 75-598
DUP/Jacket
Division File
Field Copy
HFD-330
HFD-82
HFD-610/R.West
HFD-615/MBennett

Endorsements:
HFD-615/HGreenberg, Chief, RSB O'Neal date/ 3/25/99
HFD-615/SMiddleton, CSO S. Middleton date/ 3/24/99
HFD-629/PSchwartz, Sup. Chemistry\ date/
Word Document
V:\FIRMSNZ\PERRIGO\LTRS&REV\75598.ACK
FT by/njg/3/23/99
ANDA Acknowledgment Letter!

FAX AMENDMENT

MAY 16 2000

ANDA 75-598

OFFICE OF GENERIC DRUGS, CDER, FDA
Document Control Room, Metro Park North II
7500 Standish Place, Room 150
Rockville, MD 20855-2773 (301-594-0320)

TO: APPLICANT: L. Perrigo Company TEL: (616) 673-8451

ATTN: Brian R. Schuster FAX: (616) 673-7655

FROM: Elaine Hu PROJECT MANAGER (301) 827–5848

Dear Sir:

This facsimile is in reference to your abbreviated new drug application dated March 8, 1999, submitted pursuant to Section 505(j) of the Federal Food, Drug, and Cosmetic Act for Minoxidil Topical Solution USP, 5% (For Men).

Reference is also made to your amendment(s) dated November 15, 1999.

Attached is _1_ page of minor deficiencies and/or comments that should be responded to within 30 calendar days from the date of this document. This facsimile is to be regarded as an official FDA communication and unless requested, a hard copy will not be mailed. Your complete response should be (1) faxed directly to our document control room at 301- 827-4337, (2) mailed directly to the above address, and (3) the cover sheet should be clearly marked a FAX AMENDMENT.

Please note that if you are unable to provide a complete response within 30 calendar days, the file on this application will be closed as a MINOR AMENDMENT and you will be required to take an action described under 21 CFR 314.120 which will either amend or withdraw the application. Accordingly, a response of greater than 30 days should be clearly marked MINOR AMENDMENT and will be reviewed according to current OGD policies and procedures. Facsimiles or incomplete responses received after 30 calendar days will not be considered for review, nor will the review clock be reactivated until all deficiencies have been addressed. You have been/will be notified in a separate communication from our Division of Bioequivalence of any deficiencies identified during our review of your bioequivalence data. Further if a major deficiency is cited in the bioequivalence review, the subsequent Not Approvable letter will request that the reply be declared a MAJOR AMENDMENT.

SPECIAL INSTRUCTIONS:

Chemistry comments provided.

X:\new\ogdadmin\macros\faxfax.frm

38. Chemistry Comments to be Provided to the Applicant MAY 16 2001

ANDA: 75-598 APPLICANT: L. Perrigo Company

DRUG PRODUCT: Minoxidil Topical Solution USP, 5%

The deficiencies presented below represent FAX deficiencies.

A. Deficiencies:

1. [redacted] (b) (4)

2.

Sincerely yours,

Rashmikant M. Patel, Ph.D.
Director
Division of Chemistry I
Office of Generic Drugs
Center for Drug Evaluation and Research

ANDA TENTATIVE APPROVAL SUMMARY

ANDA:	CHEMIST:	DATE:
75-598	Kathy P. Woodland	7/5/00
DRUG PRODUCT: Minoxidil Solution USP		
FIRM: L. Perrigo Company		
DOSAGE FORM: Solution	**STRENGTH:** 5%	
cGMP: Acceptable 3/29/99.		
BIO: Waiver granted, April 4, 1999, Carol Kim		
VALIDATION - *(Description of dosage form same as firm's):* USP drug substance and product		
STABILITY: The containers in the stability studies are identical to those in the container section.		
LABELING: Approved by L.Golson, 5/8/00.		
STERILIZATION VALIDATION *(If applicable)*: N/A		
SIZE OF BIO BATCH *(Firm's source of NDS ok?)*: N/A		
SIZE OF STABILITY BATCHES *(If different from bio batch, were they Manufactured via the same process?)*: Stability batch (b) (4)		
PROPOSED PRODUCTION BATCH - MANUFACTURING PROCESS THE SAME?: Production batch is (b) (4) Manufacturing process is the same.		
Signature of chemist: Kathy P. Woodland	**Signature of supervisor:** PS	

V:\FIRMSNZ\PERRIGO\LTRS&REV\Apsum75598.doc

RECORD OF TELEPHONE CONVERSATION

Reference is made to Section 17, page 293 (Volume 1.1), of the original submission, under "VI. Changes".

We request that the firm withdraw the following statement because 21 CFR 314.70 is no longer in effect:

(b) (4)

They should revise (b) (4)

The firm was advised to fax this revision as a Telephone Amendment and to follow with a hard copy.

DATE:
7/5/00

ANDA NUMBER:
75-598

PRODUCT NAME:
Minoxidil Topical Solution, 5%

FIRM NAME:
L. Perrigo Company

FIRM REPRESENTATIVE:
Brian Schuster, Manager, Regulatory Affairs

PHONE NUMBER:
(616) 673-8451

FDA REPRESENTATIVES:
Elaine Hu

SIGNATURES:

Elaine Hu 7/5/00

CC: ANDA 75-598
Telecon Binder

\\CDV008\WP51F99\FIRMSNZ\PERRIGO\TELECONS\75598.001.doc

(1A)

OGD APPROVAL ROUTING SUMMARY

ANDA # 75-598 Applicant L. PERRIGO COMPANY
Drug MINOXIDIL TOPICAL SOLUTION USP (FOR MEN) Strength 5%

APPROVAL ☐ TENTATIVE APPROVAL ☑ SUPPLEMENTAL APPROVAL (NEW STRENGTH) ☐ OTHER ☐

REVIEWER: | DRAFT RECEIPT | FINAL ACTION

1. Project Manager ELAINE HU, III — Date 7/19/00 — Date 7/19/00
Review Support Br — Initials EL — Initials EL

Application Summary:

Original Rec'd date 3/10/99
Date Acceptable for Filing 3/10/99
Patent Certification (type) I
Date Patent/Exclus.expires 11/14/00
Citizens Petition/Legal Case Yes ☐ No ☑
(If YES, attach email from PM to CP coord)
First Generic Yes ☐ No ☑
(If YES, check PETS)

EER Status Pending ☐ Acceptable ☑ OAI ☐
Date of EER Status 3/29/99
Date of Office Bio Review 4/21/99
Date of Labeling Approv. Sum 5/8/00
Date of Sterility Assur. App. N/A
Methods Val. Samples Pending Yes ☐ No ☑
30 Day Clock Start ____ End ____
Commitment Rcd. from Firm Yes ☐ No

☐ Pediatric Exclusivity Tracking System (PETS)
Date checked ____
Nothing Submitted ☐
Written request issued ☐
Study Submitted ☐

Previously reviewed and tentatively approved ☐ Date N/A
Previously reviewed and CGMP def./N/A Minor issued ☐ Date N/A
Comments:

2. Div. Dir./Deputy Dir. — Date 7/19/2000 — Date 7/20/2000
Chemistry Div. I ~~or II~~ — Initials RRC — Initials RRC
Comments:

The CMC section is satisfactory for TA of this ANDA

3. Frank Holcombe — Date ____ — Date ____
Assoc. Dir. For Chemistry — Initials ____ — Initials ____
Comments: (First generic drug review)

Not first-generic. Refer to ANDA 75-518 of Alpharma. N/A

4. Pat Beers Block — Date 7/20/00 — Date 7/21/00
Supv., Review Support Branch — Initials PMBB — Initials PMBB
EER Status: Acceptable for all facilities as of 3/29/99 (none OAI)

Bioequivalence sites: N/A waiver granted
Clinical site:
Inspection needed: ☐ yes ☐ no
Status: ☐acceptable ☐unacceptable ☐ pending
Date of status: ____
Reason:

Analytical site: N/A
Inspection needed: ☐ yes ☐ no
Status: ☐acceptable ☐unacceptable ☐pending
Date of status: ____
Reason:

Bioequivalence office level sign off: Waiver granted based on 21 CFR 320.22(b)
Acceptable 4/21/99
Labeling Status: Acceptable 5/8/2000.

Microbiology status: N/A

Patent Certification: Para I; marketing exclusivity statement that the firm will not
Controlled Correspondence/Cit.Pet: market until 11/14/00
Comments: RLD = 20-834 none

REVIEWER: | DRAFT RECEIPT | FINAL ACTION

5. Nasser Mahmud
Supv., Reg. Support Branch
Date 7/23/00 Initials RW | Date 7/24/00 Initials RW for

Contains GDEA certification: Yes X No ☐ (required if sub after 6/1/92)
Determ. of Involvement? Yes ☐ No X
Pediatric Exclusivity System
Patent/Exclusivity Certification: Yes X No ☐ Date Checked 7/23/00
If Para. IV Certification- did applicant N/A patents Nothing Submitted ☐ Std/rev rejected
Notify patent holder/NDA holder Yes ☐ No ☐ Written request issued ☐
Was applicant sued w/in 45 days: Yes ☐ No ☐ N/A Study Submitted ☐
Has case been settled: N/A Yes ☐ No ☐
Date settled:
Is applicant eligible for 180 day
RLD: Ketorolac Tromethamine Extra-Strength (for IM) 5% NDA 20-834
Generic Drugs Exclusivity for each strength: Yes ☐ No X Pharmacia & Upjohn Co.
Comments: There are no unexpired patents on this drug product. However new product exclusivity will expire on 11/14/00. P&U submitted a pediatric study on 10/6/99 request- it was rejected

6. Peter Rickman
Acting Director, DLPS
Date 7/23/00 Initials RW | Date 7/23/00 Initials RW for
Comments: Acceptable CES dated 3/29/99 (verified 7/23/00). No OAI labels noted- Bioequivalence waiver granted under 320.22(b)(3). Products Q+Q to the RLD office level. bio endorsed 4/21/99. labeling acceptable (in FPL) 8/8/2000. CMC acceptable 7/20/00 Methods validation waived-compendial. Recommend: TA.

7. Robert L. West
Acting Deputy Director, OGD
Date 7/23/00 Initials RW | Date 7/23/00 Initials RW for

Para.IV Patent Cert: Yes ☐ No X; Pending Legal Action: Yes ☐ No X; Petition: Yes ☐ No X
Comments: This product may not be approved (final) until the expiration of NP exclusivity on 11/14/2000. A tentative approval letter will issue at this time- NB: Pediatric study submitted by Pharmacia/Upjohn was rejected by ORM 10/6/99-

8. Gary Buehler
Acting Director, OGD
Comments:
Date 7/24/00 Initials GB | Date 7/24/00 Initials GB

~~Janet Woodcock, M.D.~~
Director
Center for Drug Evaluation And Research
Date _____ Initials _____ | Date _____ Initials _____
First Generic Approval ☐ PD or Clinical for BE ☐ Special Scientific or Reg.Issue ☐

9. Project Manager Elaine Hu
Review Support Branch
Date 7/24/00 Initials EH | Date 7/24/00 Initials EH

NA RW Date PETS checked for first generic drug (just prior to notification to firm)

Applicant notification:
3:39 Time notified of approval by phone 3:44 Time approval letter faxed

FDA Notification:
_____ Date e-mail message sent to "OGD approvals" account
_____ Date Approval letter copied to "//cder/drugapp" directory

v:\reports\approval\approvrou

ANDA APPROVAL SUMMARY

ANDA:	CHEMIST:	DATE:
75-598	Kathy P. Woodland	October 27, 2000
DRUG PRODUCT: Minoxidil Solution USP		
FIRM: L. Perrigo Company		
DOSAGE FORM: Solution	**STRENGTH:** 5%	
cGMP: Acceptable 3/29/99.		
BIO: Waiver granted, April 4, 1999, Carol Kim		
VALIDATION - *(Description of dosage form same as firm's):* USP drug substance and product		
STABILITY: The containers in the stability studies are identical to those in the container section.		
LABELING: Approved by L.Golson, 5/8/00.		
STERILIZATION VALIDATION *(If applicable)*: N/A		
SIZE OF BIO BATCH *(Firm's source of NDS ok?)*: N/A		
SIZE OF STABILITY BATCHES *(If different from bio batch, were they Manufactured via the same process?)*: Stability batch (b) (4)		
PROPOSED PRODUCTION BATCH - MANUFACTURING PROCESS THE SAME?: Production batch is (b) (4) Manufacturing process is the same.		
Signature of chemist: Kathy P. Woodland	**Signature of supervisor:**	

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ANDA 75-598

L. Perrigo Company
Attention: Brian R. Schuster NOV 9 2000
515 Eastern Avenue
Allegan, MI 49010

Dear Sir:

This is in reference to your abbreviated new drug application dated March 8, 1999, submitted pursuant to Section 505(j) of the Federal Food, Drug, and Cosmetic Act, for Minoxidil Topical Solution USP, 5% (For Men).

Reference is also made to your amendment dated September 8, 2000.

We have completed the review of this abbreviated application and have concluded that this application is deficient and, therefore, not approvable under 21 CFR 314.125(b)(13) because the Center for Drug Evaluation and Research (CDER) is unable to find that the methods used in, and the facilities and controls used for, the manufacture, processing, packaging or holding of Minoxidil Topical Solution USP, 5% (For Men), comply with current good manufacturing practice (cGMP) regulations.

Our conclusion is based upon the findings revealed during a recent inspection of the manufacturing facility located in Allegan, MI, by representatives of the United States Food and Drug Administration from April 26 through July 14, 2000. Upon review of this report and the inspectional observations noted during this inspection, we have received a recommendation from our Division of Manufacturing and Product Quality (DMPQ), Office of Compliance, to withhold approval of your abbreviated application.

Until such time that you can demonstrate to the Agency that the problems have been corrected and the Agency's concerns are otherwise satisfied, your abbreviated application cannot be approved.

You should amend this application when the cGMP-related issues have been satisfactorily resolved. Your amendment to this abbreviated application submitted in response to this not approvable letter will be considered a MINOR AMENDMENT provided

that the amendment contains no significant additional information necessary to remedy the cGMP problems, and includes a statement from a responsible corporate official certifying that your facilities have been found to be in compliance with cGMPs and have been cleared for approval of the drug product by representatives of the local FDA District Office. If, as a result of follow-up inspections related to the ongoing evaluation of this or other applications, it is necessary for you to significantly revise your procedures, controls or practices to correct the deficiencies, then the amendment will be considered to represent a MAJOR AMENDMENT. Your amendment should be plainly marked as such in your cover letter.

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

Sincerely yours,

RMPatel 11/9/2000

Rashmikant M. Patel, Ph.D.
Director
Division of Chemistry I
Office of Generic Drugs
Center for Drug Evaluation and Research

cc: ANDA 75-598
ANDA/DUP
Division File
Field Copy
HFD-324

Endorsements:
HFD-623/K.Woodland/ K Woodland 11/7/00
HFD-623/P.Schwartz/ P 11/7/00
HFD-617/E.Hu, PM/11/3/00 11/7/00

F/T by: gp/11/5/00

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NOT APPROVABLE - MINOR (cGMP)

OGD APPROVAL ROUTING SUMMARY

ANDA # 75-598 Applicant L. PERRIGO COMPANY
Drug MINOXIDIL TOPICAL SOLUTION USP (FOR MEN) Strength 5%

OVAL ☑ TENTATIVE APPROVAL ☐ SUPPLEMENTAL APPROVAL (NEW STRENGTH) ☐ OTHER ☐

REVIEWER:	DRAFT RECEIPT	FINAL ACTION
1. Project Manager ELAINE HU	Date 10/31/00	Date 10/31/00
Review Support Br III	Initials	Initials

Application Summary:

Original Rec'd date 3/10/99
Date Acceptable for Filing 3/10/99
Patent Certification (type) I
Date Patent/Exclus.expires 11/14/00
Citizens Petition/Legal Case Yes ☐ No ☑
(If YES, attach email from PM to CP coord)
First Generic Yes ☐ No ☑
(If YES, check PETS)
Pediatric Exclusivity Tracking System(PETS)
Date checked _____ NDA# _____
Nothing Submitted ☐
Written request issued ☐
Study Submitted ☐

EER Status Pending ☐ Acceptable ☐ OAI ☑
Date of EER Status 3/29/99
Date of Office Bio Review 4/21/99
Date of Labeling Approv. Sum 5/8/00
Date of Sterility Assur. App. —
Methods Val. Samples Pending Yes ☐ No ☑
30 Day Clock Start _____ End _____
Commitment Rcd. from Firm Yes ☐ No
Modified-release dosage form: Yes ☐ No ☑

Previously reviewed and tentatively approved ☑ Date 7/24/00
Previously reviewed and CGMP def./N/A Minor issued ☐ Date —
Comments:

2. Div. Dir./~~Deputy Dir.~~ Date 11/8/2000 Date 11/9/2000
Chemistry Div. I ~~or II~~ Initials PRC Initials PRC
Comments:

TA letter out 7/24/2000, NA letter out 11/9/2000 from DCI. Concentration is satisfactory pending CGMP clearance

3. Frank Holcombe Date _____ Date _____
Assoc. Dir. For Chemistry — Initials _____ Initials _____
Comments: (First generic drug review)

N/A

4. Pat Beers Block Date 11/9/00 Date 11/9/00
Supv. Review Support Branch Initials fmsp Initials fmsp
EER Status:

Bioequivalence sites:
Clinical site:
Inspection needed: ☐ yes ☐ no
Status: ☐acceptable ☐unacceptable ☐ pending
Date of status: _____
Reason:

Analytical site:
Inspection needed: ☐ yes ☐ no
Status: ☐acceptable ☐unacceptable ☐pending
Date of status: _____
Reason:

Bioequivalence office level sign off:

Labeling Status:

Microbiology status:

Patent Certification:
Controlled Correspondence/Cit.Pet:
Comments: RLD =

Found Minor Def.
Letter based on
CGMP deficiencies
P Beers Block 11/9/00

REVIEWER: **DRAFT RECEIPT** **FINAL ACTION**

5. Nasser Mahmud — Date_____ Date_____
Supv. Reg. Support Branch — Initials_____ Initials_____

Contains GDEA certification: Yes ☐ No ☐ Determ. of Involvement? Yes ☐ No ☐
(required if sub after 6/1/92) Pediatric Exclusivity System
Patent/Exclusivity Certification: Yes ☐ No ☐ Date Checked _____
If Para. IV Certification- did applicant Nothing Submitted ☐
Notify patent holder/NDA holder Yes ☐ No ☐ Written request issued ☐
Was applicant sued w/in 45 days: Yes ☐ No ☐ Study Submitted ☐
Has case been settled: Yes ☐ No ☐
Date settled:
Is applicant eligible for 180 day
Generic Drugs Exclusivity for each strength: Yes ☐ No ☐
Comments:

6. Peter Rickman — Date_____ Date_____
Acting Director, DLPS — Initials_____ Initials_____
Comments:

7. Robert L. West — Date _____ Date _____
Acting Deputy Director, OGD — Initials_____ Initials _____

Para.IV Patent Cert: Yes☐ No☐; Pending Legal Action:Yes☐ No☐; Petition:Yes☐ No☐
Comments:

8. Gary Buehler — Date _____ Date _____
Acting Director, OGD — Initials _____ Initials _____
Comments:

First Generic Approval ☐ PD or Clinical for BE ☐ Special Scientific or Reg.Issue ☐

9. Project Manager — Date_____ Date_____
Review Support Branch — Initials_____ Initials _____

_____Date PETS checked for first generic drug (just prior to notification to firm)

Applicant notification:
_____Time notified of approval by phone _____Time approval letter faxed

FDA Notification:
_____Date e-mail message sent to "OGD approvals" account
_____Date Approval letter copied to"//cder/drugapp" directory

reports\approval\approvrou

ANDA APPROVAL SUMMARY

ANDA:	CHEMIST:	DATE:
75-598	Kathy P. Woodland	June 1, 2001
DRUG PRODUCT: Minoxidil Solution USP		
FIRM: L. Perrigo Company		
DOSAGE FORM: Solution	**STRENGTH:** 5%	
cGMP: Acceptable 5/23/01		
BIO: Waiver granted, April 4, 1999, Carol Kim		
VALIDATION - *(Description of dosage form same as firm's)*: USP drug substance and product		
STABILITY: The containers in the stability studies are identical to those in the container section.		
LABELING: Approved by L.Golson, 5/8/00.		
STERILIZATION VALIDATION *(If applicable)*: N/A		
SIZE OF BIO BATCH *(Firm's source of NDS ok?)*: N/A		
SIZE OF STABILITY BATCHES *(If different from bio batch, were they Manufactured via the same process?)*: Stability batch (b) (4)		
PROPOSED PRODUCTION BATCH - MANUFACTURING PROCESS THE SAME?: Production batch is (b) (4) Manufacturing process is the same.		
Signature of chemist: Kathy P. Woodland	**Signature of supervisor:** P S	

V:\FIRMSNZ\PERRIGO\LTRS&REV\APSUM75598.DOC

FDA CDER EES
ESTABLISHMENT EVALUATION REQUEST
SUMMARY REPORT

Application: **ANDA 75598/000**
Stamp: **10-MAR-1999** Regulatory Due:
Applicant: **L PERRIGO**
515 EASTERN AVE
ALLEGAN, MI 49010

Priority:
Action Goal:
Brand Name:
Established Name: **MINOXIDIL**
Generic Name:
Dosage Form: **SOL (SOLUTION)**
Strength: **5 %**

Org Code: **600**
District Goal: **10-FEB-2000**

FDA Contacts: **ID = 105885 , Project Manager**
P. SCHWARTZ (HFD-629) 301-827-5848 , Team Leader

Overall Recommendation:

ACCEPTABLE on 23-MAY-2001 by S. FERGUSON (HFD-324) 301-827-0062
WITHHOLD on 31-OCT-2000 by S. FERGUSON (HFD-324) 301-827-0062
ACCEPTABLE on 29-MAR-1999 by J. D AMBROGIO (HFD-324) 301-827-0062

Establishment: (b) (4)

DMF No (b) (4)
AADA No:

Profile: **CSN** OAI Status: **NONE**
Last Milestone: **OC RECOMMENDATION**
Milestone Date: **22-MAY-2001**
Decision: **ACCEPTABLE**
Reason: **BASED ON PROFILE**

Responsibilities: **DRUG SUBSTANCE MANUFACTURER**

Establishment: **1811666**
PERRIGO CO
WATER ST/HOOKER RD/EASTERN A
ALLEGAN, MI 49010

DMF No:
AADA No:

Profile: **LIQ** OAI Status: **NONE**
Last Milestone: **OC RECOMMENDATION**
Milestone Date: **23-MAY-2001**
Decision: **ACCEPTABLE**
Reason: **DISTRICT RECOMMENDATION**

Responsibilities: **FINISHED DOSAGE MANUFACTURER**

OGD APPROVAL ROUTING SUMMARY

)A # 75-598 Applicant L. Perrigo Company

Drug Minoxidil Solution USP Strength 5%
(Minoxidil Topical Solution for Men)

APPROVAL ☑ TENTATIVE APPROVAL ☐ SUPPLEMENTAL APPROVAL (NEW STRENGTH) ☐ OTHER ☐

REVIEWER:	DRAFT RECEIPT	FINAL ACTION
1. Project Manager Michelle Dillahunt	Date 6/7/01	Date 6/14/01
Review Support Br 3	Initials MD	Initials MD

Application Summary:

Original Rec'd date 3/10/99
Date Acceptable for Filing 3/10/99
Patent Certification (type) I
~~Date Patent~~/Exclus.expired 11/14/00
Citizens Petition/Legal Case Yes ☐ No ☑
(If YES, attach email from PM to CP coord)
First Generic Yes ☐ No ☑
(If YES, check PETS)
Pediatric Exclusivity Tracking System(PETS)
Date checked _____ NDA# _____
Nothing Submitted ☐
Written request issued ☐
Study Submitted ☐

EER Status Pending ☐ Acceptable ☑ OAI ☐
Date of EER Status 5/23/01
Date of Office Bio Review 4/21/99
Date of Labeling Approv. Sum 3/6/00
Date of Sterility Assur. App. NA
Methods Val. Samples Pending Yes ☐ No ☑
30 Day Clock Start _____ End _____
Commitment Rcd. from Firm Yes ☐ No ☐
Modified-release dosage form: Yes ☐ No ☑
Interim Dissol. Specs in AP Ltr: Yes ☐

Previously reviewed and tentatively approved ☑ Date 7/24/00
Previously reviewed and CGMP def./N/A Minor issued ☑ Date 11/9/00
Comments:

2. Div. Dir./Deputy Dir. Date _____ Date 6-12-00
Chemistry Div. I or II Initials _____ Initials CMM for RMP
Comments:

3. Frank Holcombe Date _____ Date _____
Assoc. Dir. For Chemistry Initials _____ Initials _____
Comments: (First generic drug review)
N/A Multiple ANDA approvals for this strength (Alpharma, Copley/TEVA) RMP

4. Pat Beers Block Date _____ Date _____
Supv., Review Support Branch Initials _____ Initials _____
EER Status: Refer to DCPS review below
Rw Lost 6/13/01

Bioequivalence sites:
Clinical site:
Inspection needed: ☐ yes ☐ no
Status: ☐acceptable ☐unacceptable ☐ pending
☐unacceptable☐pending
Date of status: _____
Reason:

Analytical site:
Inspection needed: ☐ yes ☐ no
Status: ☐acceptable
Date of status: _____
Reason:

Bioequivalence office level sign off:

Labeling Status:

Microbiology status:

Patent Certification:
Controlled Correspondence/Cit.Pet:
Comments: RLD =

REVIEWER: | DRAFT RECEIPT | FINAL ACTION

Nasser Mahmud
Supv. Reg. Support Branch
Date 6/13/01 Initials RW | Date 6/13/01 for Initials RW

Contains GDEA certification: Yes ☒ No ☐ (required if sub after 6/1/92)
Determ. of Involvement? Yes ☐ No ☒
Pediatric Exclusivity System Exclusivity
Patent/Exclusivity Certification: Yes ☒ No ☐
Date Checked N/A was denied.
If Para. IV Certification- did applicant PI
Nothing Submitted ☐
Notify patent holder/NDA holder Yes ☐ No ☐ N/A
Written request issued ☐
Was applicant sued w/in 45 days: Yes ☐ No ☐
Study Submitted ☒
Has case been settled: N/A Yes ☐ No ☐
RLD= Roxanne Extra Strength (for Men) 5%
Date settled:
Is applicant eligible for 180 day
Pharmacia & Upjohn Co. NDA 20-834
Generic Drugs Exclusivity for each strength: Yes ☐ No ☒
Comments: This application was tentatively approved on 6/24/00 pending expiration of Pharmacia & Upjohn's new product (NP) exclusivity on 11/14/00. Approval deferred in Nov'00 due to CGMP deficiencies present at that time. There are no unexpired patents or exclusivity on this drug product.

6. Peter Rickman
Acting Director, DLPS
Date 6/13/01 Initials RW | Date 6/13/01 Initials for RW
Comments: Acceptable-ES dated 5/23/01 Verified 6/13/01. No OAI- objects noted. Bioequivalence waiver granted under 320.22(b)(3). Drug product is formulated to the RLD. Office-level bio endorsed 4/21/99. FR acceptable for approval 11/8/00, as endorsed 6/1/00. CMC acceptable for approval 6/8/01. Methods validation is not required- API and drug product are compendial.

Robert L. West
Acting Deputy Director, OGD
Date 6/13/01 Initials RW | Date 6/13/2001 Initials for RW

Para.IV Patent Cert: Yes ☐ No ☒; Pending Legal Action: Yes ☐ No ☒; Petition: Yes ☐ No ☒
Comments:
This application is recommended for approval (OTC).

8. Gary Buehler
Acting Director, OGD
Comments:
Date 6/13/01 Initials GB | Date 6/13/01 Initials GB

First Generic Approval ☐ PD or Clinical for BE ☐ Special Scientific or Reg. Issue ☐

9. Project Manager Richelle Dillahunt
Review Support Branch
Date 6/14 Initials RD | Date 6/14 Initials RD

N/A Date PETS checked for first generic drug (just prior to notification to firm)

Applicant notification:
_____ Time notified of approval by phone _____ Time approval letter faxed

FDA Notification:
6/14 Date e-mail message sent to "OGD approvals" account
6/14 Date Approval letter copied to"//cder/drugapp" directory

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