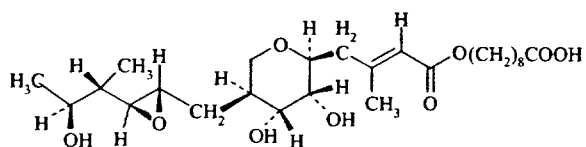


CENTER FOR DRUG EVALUATION AND RESEARCH

Application Number 50-788

CHEMISTRY REVIEW(S)

NDA 50-788**Mupirocin Ointment, 2%****Clay-Park Labs, Inc.**

Milton J. Sloan, Ph.D.
Division of Anti-Infective Drug Products (HFD-520)



Table of Contents

Table of Contents	2
Chemistry Review Data Sheet.....	4
The Executive Summary.....	6
I. Recommendations.....	6
A. Recommendation and Conclusion on Approvability	6
B. Recommendation on Phase 4 (Post-Marketing) Commitments, Agreements, and/or Risk Management Steps, if Approvable	6
II. Summary of Chemistry Assessments	6
A. Description of the Drug Product(s) and Drug Substance(s).....	6
B. Description of How the Drug Product is Intended to be Used	7
C. Basis for Approvability or Not-Approval Recommendation	8
III. Administrative	9
A. Reviewer's Signature	9
B. Endorsement Block.....	9
C. CC Block	9
Chemistry Assessment	10
I. DRUG SUBSTANCE	10
II. DRUG PRODUCT	10
1. Components/Composition	10
2. Specifications & Methods For Drug Product Ingredients.....	10
3. Manufacturer.....	11
4. Methods Of Manufacturing And Packaging	11
5. Regulatory Specifications And Methods For Drug Product	11



CHEMISTRY REVIEW



6. Container/Closure System.....	12
7. Microbiology.....	12
III. INVESTIGATIONAL FORMULATIONS	13
IV. ENVIRONMENTAL ASSESSMENT	13
V. METHODS VALIDATION	13
VI. LABELING.....	13
VII. ESTABLISHMENT INSPECTION	13
VIII. DRAFT DEFICIENCY LETTER	13
VI. APPENDIX.....	14

APPEARS THIS WAY
ON ORIGINAL

Chemistry Review Data Sheet

1. NDA 50-788
2. REVIEW #: 2
3. REVIEW DATE: December 03, 2002
4. REVIEWER: Milton J. Sloan, Ph. D.
5. PREVIOUS DOCUMENTS:

<u>Previous Documents</u>	<u>Document Date</u>
ORIGINAL	07-FEB-02
Amendment (BC)	01-APR-02
Amendment (BC)	18-JUL-02
Amendment (BC)	14-OCT-02

6. SUBMISSION (S) BEING REVIEWED:

<u>Submission(s) Reviewed</u>	<u>Document Date</u>
ORIGINAL	07-FEB-02
Faxed Amendment (hard copy to follow)	02-DEC-02

7. NAME & ADDRESS OF APPLICANT:

Name: Clay Park Labs, Inc.
Address: 1700 Bathgate Ave., Bronx, NY 10457
Representative: Candis Edwards, Director of Regulatory Affairs
Telephone: 718-960-9976

8. DRUG PRODUCT NAME/CODE/TYPE:

- a) Proprietary Name: N/A
- b) Non-Proprietary Name (USAN): Mupirocin Ointment, 2%
- c) Code Name/# (ONDC only): N/A
- d) Chem. Type/Submission Priority (ONDC only):
 - Chem. Type: 3

Chemistry Review Data Sheet

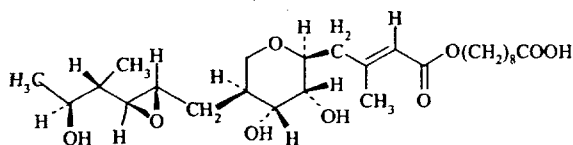
- Submission Priority: S

9. LEGAL BASIS FOR SUBMISSION: Bactroban Ointment[®] (Mupirocin ointment, 2%), GlaxoSmithKline, NDA 50-591.
10. PHARMACOL. CATEGORY: Topical treatment of impetigo due to: Staphylococcus aureus and Streptococcus Pyogenes.
11. DOSAGE FORM: Ointment
12. STRENGTH/POTENCY: 2%
13. ROUTE OF ADMINISTRATION: Topical
14. Rx/OTC DISPENSED: Rx OTC
15. SPOTS (SPECIAL PRODUCTS ON-LINE TRACKING SYSTEM)[Note26]:

SPOTS product – Form Completed

Not a SPOTS product

16. CHEMICAL NAME, STRUCTURAL FORMULA, MOLECULAR FORMULA, MOLECULAR WEIGHT:
 (E)-2S,3R,4R,5S)-5-[(2S,3S,4S,5S)-2,3-Epoxy-5-hydroxy-4-methylhexyl]-tetrahydro-3,4-dihydroxy β-methyl-2H-pyran-2-crotonic acid, ester with 9-hydroxynonanoic acid



CAS # 12650-69-0

M.F.=C₂₆H₄₄O₉

M.W.= 500.63

17. RELATED/SUPPORTING DOCUMENTS:

A. DMFs:

There are no changes from the previous Review #1.

B. Other Documents: N/A

There are no changes from the previous Review #1.

18. STATUS:

There are no changes from the previous Review #1.

The Chemistry Review for NDA 50-788

The Executive Summary

I. Recommendations

A. Recommendation and Conclusion on Approvability

The application is recommended for approval from the CMC viewpoint.

B. Recommendation on Phase 4 (Post-Marketing) Commitments, Agreements, and/or Risk Management Steps, if Approvable

II. Summary of Chemistry Assessments

A. Description of the Drug Product(s) and Drug Substance(s)

Drug Substance

Mupirocin is the active pharmaceutical ingredient (API) in Clay-Park Labs (CPL) Mupirocin Ointment, 2%. Mupirocin is the major metabolite produced from a strain of *Pseudomonas fluorescens* grown in a submerged culture. It is also known as pseudomonic acid A.

_____) is the proposed vendor of the Mupirocin, and has submitted _____. CPL has included a letter of authorization to _____ in this application. The manufacturing facility is located in _____. Mupirocin is purchased through _____ who serves as the _____. The facility has an acceptable EER report recommendation based on the profile. The DMF has been reviewed and found adequate to support NDA 50-788. A description of the physical and chemical characteristics of Mupirocin is presented in the DMF. _____ also provides the details of the fermentation procedure use to manufacture Mupirocin. _____ has included stability data at both 25°C / 60% RH and under refrigeration conditions 2-8°C, on two batches. Specifications at the end of 24 months were met and the data included in the DMF.

CPL qualified _____ as a vendor by evaluating 3 lots of drug substance according to _____ specifications. Mupirocin is a compendial grade material and the tests and specifications in the USP 25 monograph (pages 1176-1177) include those of identification, crystallinity, pH, water and assay. In addition, the DMF holder performs tests for related substances and residual solvents. The analytical methodologies for related substances and residual solvents proposed by CPL are based on _____ validated methods included in the DMF. CPL performed _____, and has included these study reports in their NDA.

Executive Summary Section

Drug Product

The formulation consists of _____ w/w Mupirocin, incorporated into a lipophilic vehicle which includes the following inactive ingredients: castor oil (_____), oleyl alcohol (_____) (Softisan 378 (hard fat) _____), and propylene glycol monostearate, pure _____). The formulation does not include any coloring or fragrance agents.

The drug product is to be manufactured at CPL's facility located in the Bronx, New York. CPL proposes to use a manufacturing procedure similar to that of other FDA-approved topical products manufactured by CPL. Their facility is registered with the FDA under Establishment Registration # 2450054 and has been given an acceptable recommendation (25-Mar-02) based on an acceptable District Office (DO) file review.

The drug product has a USP 25 monograph (pages 1176-1177) and the tests and specifications include identification, minimum fill and assay. Additional tests for _____ are proposed for CPL's product specifications. CPL acknowledges the assay included in the USP monograph was developed for GSK's hydrophilic-based drug product. CPL has modified the sample preparation in the USP monograph, in order to improve the extraction of Mupirocin from their lipophilic base formulation. CPL has validated the slightly modified USP assay for the drug substance. CPL has also developed and validated stability indicating methodology for the evaluation of the degradants in the related substance analysis. Their method validation reports are included in the NDA.

CPL's Mupirocin Ointment, 2% drug product is to be packaged into 15g, 22g and 30g lined aluminum, _____, blind end tubes with white, HDPE caps. The tubes are lined with _____ which is a _____ liner. The filled tubes are to be placed into outer folding cartons, which also contain the package insert. The marketed tubes and outer folding cartons will be pre-labeled with the approved labeling from this NDA. CPL has included a Packaging Comparability Protocol, in order to obtain approval of the 22 g packaging configuration.

CPL has updated long term stability data to include 24-months in order to support the 30 month expiry period. Three months of accelerated stability data has also been included in the NDA to support the 22 g tube configuration. Intermediate storage condition stability data has been also been included in the NDA. Statistical evaluation of the stability data on this packaging configuration indicates that the drug product is stable a minimum of 30 months.

B. Description of How the Drug Product is Intended to be Used

CPL's Mupirocin Ointment, 2% drug product is a locally acting, ointment dosage form, intended for the topical route of administration. Mupirocin has been shown to be

Executive Summary Section

effective in the treatment of impetigo. Impetigo is a superficial infection of the skin caused primarily by *Staphylococcus aureus*, Group A streptococci, and occasionally by other streptococci and is seen most often in young children, especially those living under conditions of poor hygiene, in semi-tropical and tropical climates. Minor trauma, such as a scratch or an insect bite, may serve to lodge bacteria into the skin and cause this infection. Impetigo is a highly contagious bacterial infection, which most commonly occurs on exposed areas of the body, such as the edge of the nose, the mouth, and on the arms and legs. A small amount of Mupirocin Ointment, 2% should be applied to the infected area three times daily.

Mupirocin, the major metabolite produced from a strain of *Pseudomonas fluorescens* is grown in a submerged culture. The unique mode of Mupirocin antimicrobial activity is due to the reversible inhibition of isoleucyl transfer RNA synthetase, which results in the inhibition of protein synthesis and RNA synthesis. Mupirocin competes for the bacterial isoleucine binding sites on the isoleucyl transfer RNA synthetase enzyme. The epoxide side chain terminus of the Mupirocin molecule occupies two hydrophobic sites. These two sites accommodate the methyl and ethyl groups of L-isoleucine on the isoleucine-binding site of the isoleucyl transfer RNA synthetase susceptible bacteria. The reversible inhibition of the formation of the enzyme complex prevents further isoleucine incorporation which deletes cellular concentration of isoleucine charged transfer RNA and leads to a cessation of protein and RNA synthesis in susceptible bacteria.

C. Basis for Approvability or Not-Approval Recommendation

Mupirocin Ointment, 2% was developed by Agis Industries, the parent company of CPL, as an equivalent product to Bactroban® Ointment, which is manufactured and marketed by GSK under NDA 50-591. Since GSK's product is protected under US Patent 4,524,075, CPL's goal was to develop a chemically and physically stable, non-infringing formulation. In order to improve the physical characteristics of Mupirocin Ointment, 2%, CPL changed the base of the ointment from the hydrophilic PEG base in GSK's Bactroban® Ointment to a lipophilic base. CPL's first meeting was held with the Office of Generic Drugs (OGD) to determine whether or not the Mupirocin Ointment, 2% application could be submitted as an abbreviated new drug application (ANDA) under Section 505(j) of the Federal Food, Drug, and Cosmetic Act (FD&C Act). OGD informed CPL that the application could not be submitted as a 505(j) ANDA because the reference listed drug utilized a bland water miscible ointment base and OGD could not approve an ANDA that involved a change in the lipophilic properties of the vehicle or base. CPL has thus submitted this application as a 505(b) (2) NDA to the Office of New Drugs (OND).

The drug product has a USP 25 monograph (pages 1176-1177) and the tests and specifications include identification, minimum fill and assay. Additional tests for _____ are proposed for CPL using the slightly modified USP assay for the drug substance. CPL's finished drug product is to meet requirements of the compendial drug.

**Executive Summary Section**

There were six draft review comments listed in Section VIII of Review #1. Only two of the draft comments were communicated to Clay-Park Labs by fax (11/27/02). Clay Park Labs has responded to these comments (12/02/02). Their responses to the comments have been reviewed and found acceptable. Two other comments were considered by DNDC III to be GMP in nature and thus more appropriate for the field investigator. The e-mail attachment at the end of this review raises the concerns to EES Questions. The final two comments that addressed a typographical error and a lack of clarity in the sampling plans were considered nice-to-know and were therefore not communicated.

III. Administrative**A. Reviewer's Signature****B. Endorsement Block**

Milton J. Sloan, Ph. D.
Chemist Reviewer

Date: December 03, 2002

Bonnie B. Dunn, Ph. D.,
Acting Chemistry Team Leader, Deputy Director DNDCIII

Chi-wan Chen for
Date: 12/03/02

C. CC Block

HFD-520/DillonParker/PM
HFD-520/Bostwick/MO
HFD-520/Sloan/CHM

**THIS SECTION
WAS
DETERMINED
NOT
TO BE
RELEASABLE**

4 pages



CHEMISTRY REVIEW



Chemistry Assessment Section

ATTACHMENT A

Cont'd

03-DEC-2002

FDA CDER EES
ESTABLISHMENT EVALUATION REQUEST
DETAIL REPORT

Page 2 of 2

Estab. Comment: THE FIRM REPORTS IN NDA TO PERFORM ALL MANUFACTURING, PACKAGING, RELEASE AND STABILITY TESTING OF DRUG PRODUCT WITH EXCEPTION OF ONE TEST ON DRUG SUBSTANCE. (on 15-MAR-2002 by M. SLOAN (HFD-520) 301-827-2174)

Milestone Name	Date	Req. Type	Insp. Date	Decision & Reason	Creator
SUBMITTED TO OC	15-MAR-2002				SLOANM
SUBMITTED TO DO	15-MAR-2002	10D			FERGUSONS
DO RECOMMENDATION	25-MAR-2002			ACCEPTABLE BASED ON FILE REVIEW	LFARINA
OC RECOMMENDATION	25-MAR-2002			ACCEPTABLE DISTRICT RECOMMENDATION	DAMBROGIOJ

APPEARS THIS WAY
ON ORIGINAL

**THIS SECTION
WAS
DETERMINED
NOT
TO BE
RELEASABLE**

1 page

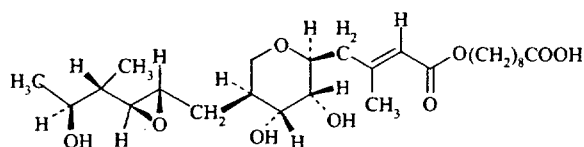
**This is a representation of an electronic record that was signed electronically and
this page is the manifestation of the electronic signature.**

/s/

Milton Sloan
12/4/02 10:27:57 AM
CHEMIST

Chi Wan Chen
12/4/02 11:26:32 AM
CHEMIST

APPEARS THIS WAY
ON ORIGINAL

NDA 50-788**Mupirocin Ointment, 2%****Clay-Park Labs, Inc.**

Milton J. Sloan, Ph.D.
Division of Anti-Infective Drug Products (HFD-520)

Table of Contents

Table of Contents	2
Chemistry Review Data Sheet.....	5
The Executive Summary.....	9
I. Recommendations.....	9
A. Recommendation and Conclusion on Approvability	9
B. Recommendation on Phase 4 (Post-Marketing) Commitments, Agreements, and/or Risk Management Steps, if Approvable	9
II. Summary of Chemistry Assessments	9
A. Description of the Drug Product(s) and Drug Substance(s).....	9
B. Description of How the Drug Product is Intended to be Used	11
C. Basis for Approvability or Not-Approval Recommendation	11
III. Administrative	12
A. Reviewer's Signature	12
B. Endorsement Block.....	12
C. CC Block	12
Chemistry Assessment	13
I. DRUG SUBSTANCE	13
1. Description & Characterization.....	13
a. Description	13
b. Characterization / Proof Of Structure.....	14
2. Manufacturer.....	14
3. Synthesis / Method Of Manufacture.....	15
a. Starting Materials - Specs & Tests	15
b. Solvents, Reagents, etc.	15

c. Flow Chart.....	15
d. Detailed Description	15
4. Process Controls	16
a. Reaction Completion / Other In-Process Tests	16
b. Intermediate Specs & Tests	16
5. Reference Standard.....	16
a. Preparation	16
b. Specifications	16
6. Regulatory Specifications / Analytical Methods.....	16
a. Drug Substance Specifications & Tests.....	16
b. Purity Profile	20
c. Microbiology	22
7. Container/Closure System For Drug Substance Storage	22
8. Drug Substance Stability	22
II. DRUG PRODUCT	23
1. Components/Composition	23
2. Specifications & Methods For Drug Product Ingredients.....	24
a. Active Ingredient(s).....	24
b. Inactive Ingredients	24
3. Manufacturer.....	28
4. Methods Of Manufacturing And Packaging	28
a. Production Operations	28
b. In-Process Controls & Tests	32
c. Reprocessing Operations.....	33
5. Regulatory Specifications And Methods For Drug Product	33
a. Sampling Procedures.....	33
b. Regulatory Specifications And Methods.....	33
6. Container/Closure System.....	37
7. Microbiology	40
8. Drug Product Stability.....	40
III. INVESTIGATIONAL FORMULATIONS	44



CHEMISTRY REVIEW



IV. ENVIRONMENTAL ASSESSMENT	46
V. METHODS VALIDATION	46
VI. LABELING.....	49
VII. ESTABLISHMENT INSPECTION	51
VIII. DRAFT DEFICIENCY LETTER	51
VI. APPENDIX.....	53

**APPEARS THIS WAY
ON ORIGINAL**

Chemistry Review Data Sheet

1. NDA 50-788
2. REVIEW #: 1
3. REVIEW DATE: November 07, 2002
4. REVIEWER: Milton J. Sloan, Ph. D.
5. PREVIOUS DOCUMENTS:

<u>Previous Documents</u>	<u>Document Date</u>
ORIGINAL	07-FEB-02
Amendment (BC)	01-APR-02
Amendment (BC)	18-JUL-02
Amendment (BC)	14-OCT-02

6. SUBMISSION(S) BEING REVIEWED:

<u>Submission(s) Reviewed</u>	<u>Document Date</u>
ORIGINAL	07-FEB-02
Amendment (BC)	01-APR-02
Amendment (BC)	18-JUL-02
Amendment (BC)	14-OCT-02

7. NAME & ADDRESS OF APPLICANT:

Name: Clay Park Labs, Inc.
Address: 1700 Bathgate Ave., Bronx, NY 10457
Representative: Candis Edwards, Director of Regulatory Affairs
Telephone: 718-960-9976

Chemistry Review Data Sheet

8. DRUG PRODUCT NAME/CODE/TYPE:

- a) Proprietary Name: N/A
 b) Non-Proprietary Name (USAN): Mupirocin Ointment, 2%
 c) Code Name/# (ONDC only): N/A
 d) Chem. Type/Submission Priority (ONDC only):
- Chem. Type: 3
 - Submission Priority: S

9. LEGAL BASIS FOR SUBMISSION: Bactroban Ointment[®] (Mupirocin ointment, 2%), GlaxoSmithKline, NDA 50-591.

10. PHARMACOL. CATEGORY: Topical treatment of impetigo due to: Staphylococcus aureus and Streptococcus Pyogenes.

11. DOSAGE FORM: Ointment

12. STRENGTH/POTENCY: 2%

13. ROUTE OF ADMINISTRATION: Topical

14. Rx/OTC DISPENSED: Rx OTC

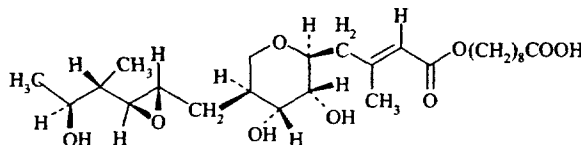
15. SPOTS (SPECIAL PRODUCTS ON-LINE TRACKING SYSTEM)[Note26]:

SPOTS product – Form Completed

Not a SPOTS product

16. CHEMICAL NAME, STRUCTURAL FORMULA, MOLECULAR FORMULA, MOLECULAR WEIGHT:

(E)-2S,3R,4R,5S)-5-[(2S,3S,4S,5S)-2,3-Epoxy-5-hydroxy-4-methylhexyl]-tetrahydro-3,4-dihydroxy β-methyl-2H-pyran-2-crotonic acid, ester with 9-hydroxynonanoic acid



CAS # 12650-69-0

M.F.=C₂₆H₄₄O₉

M.W.= 500.63



CHEMISTRY REVIEW



Chemistry Review Data Sheet

17. RELATED/SUPPORTING DOCUMENTS:

A. DMFs:

DMF #	TYPE	HOLDER	ITEM REFERENCED	CODE ¹	STATUS ²	DATE REVIEW COMPLETED	COMMENTS
				1	Adequate	18-OCT-2002	Responses to deficiencies have been adequately addressed. IR letter sent for updated list of Companies
				7	Adequate	11-AUG-2000	The DMF has been previously reviewed and found adequate. There have been two annual updates since time of review. No CMC changes.
				7	Current	N/A	No review was done because sufficient information is contained in the application.

¹ Action codes for DMF Table:

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")

² Adequate, Inadequate, or N/A (There is enough data in the application, therefore the DMF did not need to be reviewed)

**CHEMISTRY REVIEW**

Chemistry Review Data Sheet

B. Other Documents: N/A

18. STATUS:

CONSULTS/ CMC RELATED REVIEWS	RECOMMENDATION	DATE	REVIEWER
Biometrics	N/A		
Establishment Evaluation Request (EER)	Acceptable	25-MAR-02	J. D. Ambrogio
Pharm/Tox	N/A		
Biopharm	N/A		
Labeling and Nomenclature Committee/ OPDRA	N/A		
Methods Validation	N/A		
Environmental Assessment	Categorical Exclusion Requested	N/A	N/A
Microbiology	N/A		

**APPEARS THIS WAY
ON ORIGINAL**

The Chemistry Review for NDA 50-788

The Executive Summary

I. Recommendations

A. Recommendation and Conclusion on Approvability

There are some pending CMC issues that remain to be resolved. However, there are no outstanding approvability issues. The application is recommended for approval from the CMC viewpoint.

B. Recommendation on Phase 4 (Post-Marketing) Commitments, Agreements, and/or Risk Management Steps, if Approvable

II. Summary of Chemistry Assessments

A. Description of the Drug Product(s) and Drug Substance(s)

Drug Substance

Mupirocin is the active pharmaceutical ingredient (API) in Clay-Park Labs (CPL) Mupirocin Ointment, 2%. Mupirocin is the major metabolite produced from a strain of *Pseudomonas fluorescens* grown in a submerged culture. It is also known as pseudomonic acid A.

_____ is the proposed vendor of the Mupirocin, and has submitted _____ CPL has included a letter of authorization to _____ in this application. The manufacturing facility is located in _____. Mupirocin is purchased through _____, who serves as the U.S. agent. The facility has an acceptable EER report recommendation based on the profile. The DMF has been reviewed and found adequate to support NDA 50-788. A description of the physical and chemical characteristics of Mupirocin is presented in the DMF. _____ also provides the details of the fermentation procedure use to manufacture Mupirocin. _____ has included stability data at both 25°C / 60% RH and under refrigeration conditions 2-8°C, on two batches. Specifications at the end of 24 months were met and the data included in the DMF.

CPL qualified _____ as a vendor by evaluating 3 lots of drug substance according to _____ specifications. Mupirocin is a compendial grade material and the tests and specifications in the USP 25 monograph (pages 1176-1177) include those of identification, crystallinity, pH, water and assay. In addition, the DMF holder performs tests for related substances and residual solvents. The analytical methodologies for

Executive Summary Section

related substances and residual solvents proposed by CPL are based on validated methods included in the DMF. CPL performed method transfer studies and has included these study reports in their NDA.

Drug Product

The formulation consists of _____, w/w Mupirocin, incorporated into a lipophilic vehicle which includes the following inactive ingredients: castor oil _____, oleyl alcohol _____ (Softisan 378 (hard fat) _____), and propylene glycol monostearate, pure _____). The formulation does not include any coloring or fragrance agents.

The drug product is to be manufactured at CPL's facility located in the Bronx, New York. CPL proposes to use a manufacturing procedure similar to that of other FDA-approved topical products manufactured by CPL. Their facility is registered with the FDA under Establishment Registration # 2450054 and has been given an acceptable recommendation (25-Mar-02) based on an acceptable District Office (DO) file review.

The drug product has a USP 25 monograph (pages 1176-1177) and the tests and specifications include identification, minimum fill and assay. Additional tests for _____ are proposed for CPL's product specifications. CPL acknowledges the assay included in the USP monograph was developed for GSK's hydrophilic-based drug product. CPL has modified the sample preparation in the USP monograph, in order to improve the extraction of Mupirocin from their lipophilic base formulation. CPL has validated the slightly modified USP assay for the drug substance. CPL has also developed and validated stability indicating methodology for the evaluation of the degradants in the related substance analysis. Their method validation reports are included in the NDA.

CPL's Mupirocin Ointment, 2% drug product is to be packaged into 15g, 22g and 30g lined aluminum, _____ blind end tubes with white, HDPE caps. The tubes are lined with _____ which is a _____ liner. The filled tubes are to be placed into outer folding cartons, which also contain the package insert. The marketed tubes and outer folding cartons will be pre-labeled with the approved labeling from this NDA. CPL has included a Packaging Comparability Protocol, in order to obtain approval of the 22 g packaging configuration.

CPL has updated long term stability data to include 24-months in order to support the 30 month expiry period. Three months of accelerated stability data has also been included in the NDA to support the 22 g tube configuration. Intermediate storage condition stability data has been also been included in the NDA. Statistical evaluation of the stability data on this packaging configuration indicates that the drug product is stable a minimum of 30 months.

Executive Summary Section

B. Description of How the Drug Product is Intended to be Used

CPL's Mupirocin Ointment, 2% drug product is a locally acting, ointment dosage form, intended for the topical route of administration. Mupirocin has been shown to be effective in the treatment of impetigo. Impetigo is a superficial infection of the skin caused primarily by *Staphylococcus aureus*, Group A streptococci, and occasionally by other streptococci and is seen most often in young children, especially those living under conditions of poor hygiene, in semi-tropical and tropical climates. Minor trauma, such as a scratch or an insect bite, may serve to lodge bacteria into the skin and cause this infection. Impetigo is a highly contagious bacterial infection, which most commonly occurs on exposed areas of the body, such as the edge of the nose, the mouth, and on the arms and legs. A small amount of Mupirocin Ointment, 2% should be applied to the infected area three times daily.

Mupirocin, the major metabolite produced from a strain of *Pseudomonas fluorescens* is grown in a submerged culture. The unique mode of Mupirocin antimicrobial activity is due to the reversible inhibition of isoleucyl transfer RNA synthetase, which results in the inhibition of protein synthesis and RNA synthesis. Mupirocin competes for the bacterial isoleucine binding sites on the isoleucyl transfer RNA synthetase enzyme. The epoxide side chain terminus of the Mupirocin molecule occupies two hydrophobic sites. These two sites accommodate the methyl and ethyl groups of L-isoleucine on the isoleucine-binding site of the isoleucyl transfer RNA synthetase susceptible bacteria. The reversible inhibition of the formation of the enzyme complex prevents further isoleucine incorporation which depletes cellular concentration of isoleucine charged transfer RNA and leads to a cessation of protein and RNA synthesis in susceptible bacteria.

C. Basis for Approvability or Not-Approval Recommendation

Mupirocin Ointment, 2% was developed by Agis Industries, the parent company of CPL, as an equivalent product to Bactroban® Ointment, which is manufactured and marketed by GSK under NDA 50-591. Since GSK's product is protected under US Patent 4,524,075, CPL's goal was to develop a chemically and physically stable, non-infringing formulation. In order to improve the physical characteristics of Mupirocin Ointment, 2%, CPL changed the base of the ointment from the hydrophilic PEG base in GSK's Bactroban® Ointment, to a lipophilic base. CPL's first meeting was held with the Office of Generic Drugs (OGD) to determine whether or not the Mupirocin Ointment, 2% application could be submitted as an abbreviated new drug application (ANDA) under Section 505(j) of the Federal Food, Drug, and Cosmetic Act (FD&C Act). OGD informed CPL that the application could not be submitted as a 505(j) ANDA because the reference listed drug utilized a bland water miscible ointment base and OGD could not approve an ANDA that involved a change in the lipophilic properties of the vehicle or base. CPL has thus submitted this application as a 505(b) (2) NDA to the Office of New Drugs (OND). The drug product has a USP 25 monograph (pages 1176-1177) and the tests and specifications include identification, minimum fill and assay. Additional tests for organoleptic attributes, related substances and microbiological



CHEMISTRY REVIEW



Executive Summary Section

evaluations are proposed for CPL using the slightly modified USP assay for the drug substance. CPL finished drug product is to meet requirements of the compendial drug.

III. Administrative

A. Reviewer's Signature

B. Endorsement Block

Milton J. Sloan, Ph. D.
Chemist Reviewer

Date: November 19, 2002

Bonnie B. Dunn, Ph. D.,
Acting Chemistry Team Leader, Deputy Director DNDCIII

Date:

C. CC Block

HFD-520/DillonParker/PM
HFD-520/Bostwick/MO
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ATTACHMENT A Cont'd

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ESTABLISHMENT EVALUATION REQUEST
DETAIL REPORT

Page 2 of 2

Estab. Comment: THE FIRM REPORTS IN NDA TO PERFORM ALL MANUFACTURING, PACKAGING, RELEASE AND STABILITY TESTING OF DRUG PRODUCT WITH EXCEPTION OF ONE TEST ON DRUG SUBSTANCE. (on 15-MAR-2002 by M. SLOAN (HFD-520) 301-827-2174)

Milestone Name	Date	Req. Type	Insp. Date	Decision & Reason	Creator
SUBMITTED TO OC	15-MAR-2002				SLOANM
SUBMITTED TO DO	15-MAR-2002	10D			FERGUSONS
DO RECOMMENDATION	25-MAR-2002			ACCEPTABLE BASED ON FILE REVIEW	LFARINA
OC RECOMMENDATION	25-MAR-2002			ACCEPTABLE DISTRICT RECOMMENDATION	DAMBROGIOJ

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/s/

Milton Sloan
11/27/02 05:35:05 PM
CHEMIST

Bonnie Dunn
11/27/02 05:51:17 PM
CHEMIST

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