CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER: 20-922

MICROBIOLOGY REVIEW(S)

/S/

REVIEW FOR HFD-540
OFFICE OF NEW DRUG CHEMISTRY
MICROBIOLOGY STAFF
MICROBIOLOGIST'S REVIEW #1 OF NDA 20-922
10 April 1998

A. 1. NDA 20-922

APPLICANT: Bristol-Myers Squibb Pharmaceuticals
100 Forest Avenue
Buffalo, NY 14213-1091

2. PRODUCT NAMES: 4-Hydroxyanisole and All-Trans Retinoic Acid

3. DOSAGE FORM AND ROUTE OF ADMINISTRATION:
The product is a topical solution.

4. METHODS OF STERILIZATION:
The product is not a sterile product but, is subject to microbial limits specifications.

5. PHARMACOLOGICAL CATEGORY and/or PRINCIPLE INDICATION:
The product is indicated for use in treatment of solar lentigines( ) ( ) resulting from chronic solar exposure.

B. 1. DATE OF INITIAL SUBMISSION: 30 December 1997

2. DATE OF AMENDMENT: (none)

3. RELATED DOCUMENTS: DMF( ) DMF( ) DMF( ) IND ( )

4. ASSIGNED FOR REVIEW: 2 February 1998

REMARKS: The application provides for the manufacture of the product at either of following two sites:

Bristol-Myers Squibb Technical Operations
Westwood-Squibb Pharmaceuticals, Inc.
100 Forest Avenue
Buffalo, NY 14213

or

Squibb Manufacturing
State Road #3, KM 77.5
Humacao, Puerto Rico 00792

D. CONCLUSIONS: The application is approvable pending resolution of Microbiology concerns.

/S/ 10 April 1998

Paul Stinavage, Ph.D.

/S/ 4/22/98

cc: Original NDA 20-922
HFD-540/W. Timmer/F. Cross
HFD-805/Consult File/Stinavage

Drafted by: P. Stinavage, 10 April 1998
R/D initialed by P. Cooney

APPEARS THIS WAY
ON ORIGINAL

HFD-540 /S/

JUL 15 1998

REVIEW FOR HFD-540
OFFICE OF NEW DRUG CHEMISTRY
MICROBIOLOGY STAFF
MICROBIOLOGIST'S REVIEW #2 OF NDA 20-922
9 July 1998

A. 1. NDA 20-922 BI

APPLICANT: Bristol-Myers Squibb Pharmaceuticals
100 Forest Avenue
Buffalo, NY 14213-1091

2. PRODUCT NAMES: 4-Hydroxyanisole and All-Trans Retinoic Acid

3. DOSAGE FORM AND ROUTE OF ADMINISTRATION:
The product is a topical solution.

4. METHODS OF STERILIZATION:
The product is not a sterile product but, is subject to microbial limits specifications.

5. PHARMACOLOGICAL CATEGORY and/or PRINCIPLE INDICATION:
The product is indicated for use in treatment of solar lentigines [redacted] resulting from chronic solar exposure.

B. 1. DATE OF INITIAL SUBMISSION: 30 December 1997

2. DATE OF AMENDMENT: 16 June 1998 (Subject of this Review)

3. RELATED DOCUMENTS: DMF[redacted] DMF[redacted] DMF[redacted] IND [redacted]

4. ASSIGNED FOR REVIEW: 6 July 1998

REMARKS: The application provides for the manufacture of the product at either of following two sites:

Bristol-Myers Squibb Technical Operations
Westwood-Squibb Pharmaceuticals, Inc.
100 Forest Avenue
Buffalo, NY 14213

or

Squibb Manufacturing
State Road #3, KM 77.5
Humacao, Puerto Rico 00792

D. CONCLUSIONS: The application is recommended for approval on the basis of the microbial quality of the product.

/S/ 9 July 1998
Paul Stinavage, Ph.D.

/S/ 7/15/98

cc: Original NDA 20-922
HFD-540/W. Timmer/F. Cross
HFD-805/Consult File/Stinavage

Drafted by: P. Stinavage, 9 July 1998
R/D initialed by P. Cooney

APPEARS THIS WAY
ON ORIGINAL