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RESEARCH**

APPLICATION NUMBER:

20-947

MICROBIOLOGY REVIEW(S)

**Product Quality Microbiology Review
Review for HFD-550**

13 February 2002

ANDA/NDA: 20-947

Name of Drug: Pennsaid

Review Number: 1

Submission Date: 7 August 2001

Applicant: Dimethaid International Inc.

Name of Reviewer: Bryan S. Riley, Ph.D.

Conclusion: Recommend Approval

Product Quality Microbiology Data Sheet

- A.
1. **NDA:** 20-947
 2. **REVIEW NUMBER:** 1
 3. **REVIEW DATE:** 13 February 2001
 4. **TYPE OF SUPPLEMENT:** N/A
 5. **SUPPLEMENT PROVIDES FOR:** N/A
 6. **APPLICANT/SPONSOR:**
Name: Dimethaid International Inc.
Representative: George Markus
Telephone: 905-415-1446
 7. **MANUFACTURING SITE:** Dimethaid Manufacturing
Varenes, Quebec, Canada
 8. **DRUG PRODUCT NAME:**
Proprietary: Pennsaid lotion
Non-proprietary: 1.5% diclofenac sodium
Drug Priority Classification: S
 9. **DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY:** Topical Solution of diclofenac sodium, 1.5% w/w
 10. **METHOD(S) OF STERILIZATION:** N/A
 11. **PHARMACOLOGICAL CATEGORY:** Treatment for Osteoarthritis
- B.
1. **DOCUMENT/LETTER DATE:** 7 August 2001
 2. **RECEIPT DATE:** 8 August 2001
 3. **CONSULT DATE:** 2 November 2001
 4. **DATE OF AMENDMENTS:** N/A
 5. **ASSIGNED FOR REVIEW:** 18 December 2001
 6. **SUPPORTING/RELATED DOCUMENTS:**
- C. **REMARKS:**
-

Executive Summary**I. Recommendations**

- A. Recommendation on Approvability** – This submission is recommended for approval from the standpoint of product quality microbiology.
- B. Recommendation on Phase 4 Commitments and/or Agreements, if Approvable** – N/A

II. Summary of Microbiology Assessments

- A. Brief Description of the Manufacturing Processes that relate to Product Quality Microbiology** – The drug product is a non-sterile topical lotion.
- B. Brief Description of Microbiology Deficiencies** - none
- C. Assessment of Risk Due to Microbiology Deficiencies** – The drug product microbial limit specifications are adequate for a topical product. The unsuccessful attempt to validate the recovery of *S. aureus* from the drug product indicates that *S. aureus* is unlikely to contaminate the drug product and provides minimal risk to public health.

III. Administrative

- A. Reviewer's Signature** _____
- B. Endorsement Block**
Bryan S. Riley, Ph.D. (Microbiology Reviewer)
Peter H. Cooney, Ph.D. (Microbiology Supervisor)
- C. CC Block**
N/A

Product Quality Microbiology Assessment

The drug product is a non-sterile topical lotion containing 1.5% diclofenac sodium. The microbial limit specifications for the drug product are :

b(4)

The microbial limits test (USP <61>) was validated for use with the drug product by inoculating the drug product with test organisms and determining if the drug product was inhibitory for the test organisms. The microbial limit test was validated for use with the drug product for enumeration (*S. aureus*, *P. aeruginosa*, *E. coli*, *S. cholerasuis*, *C. albicans* and *A. niger*) and testing for specific organisms (*E. coli*, *P. aeruginosa*, and *S. cholerasuis*). The efforts to recover *Staphylococcus aureus* using the procedure from USP <51> were not successful, even when the sample (10 g) was diluted in 1000 mL of Soybean Casein Digest Broth. This suggests that prolonged contact with the drug product is inhibitory for *S. aureus* and *S. aureus* is therefore unlikely to contaminate the drug product.

ADEQUATE

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

/s/

Bryan Riley
2/27/02 09:08:28 AM
MICROBIOLOGIST

Peter Cooney
2/27/02 10:26:56 AM
MICROBIOLOGIST