

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*  
**22-195**

**MICROBIOLOGY REVIEW(S)**

# Product Quality Microbiology Review

26 FEB 2008

**NDA:** 22-195/N-000

**Drug Product Name**

**Proprietary:** N/A

**Non-proprietary:** Morphine Sulfate Oral Solution

**Drug Product Priority Classification:** S

**Review Number:** 1

**Dates of Submission(s) Covered by this Review**

Letter	Stamp	Review Request	Assigned to Reviewer
16 MAY 2007	17 MAY 2007	05 JUNE 2007	25 JUNE 2007

**Submission History (for amendments only) N/A**

**Applicant/Sponsor**

**Name:** Roxane Laboratories, Inc.

**Address:** 1809 Wilson Rd.  
Columbus, OH 43228

**Representative:** Elizabeth Ernst  
Associate Director  
DRA-Multisource Products

**Telephone:** 614-272-4785

**Name of Reviewer:** Robert J. Mello, Ph.D.

**Conclusion:** The application is recommended for approval from microbiology product quality standpoint.

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## Product Quality Microbiology Data Sheet

- A. 1. **TYPE OF SUBMISSION:** New Drug Application: 505 (b)(2)
2. **SUBMISSION PROVIDES FOR:** Request to market a new drug
3. **MANUFACTURING SITE:**  
Drug Substance ( ): \_\_\_\_\_

b(4)

Drug Product:

Boehringer Ingelheim Roxane, Inc.  
1809 Wilson Road  
Columbus, OH 43228

4. **DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY:** Preserved Solutions, Oral,
- 10 mg per 5 mL
    - 5 ml Unit dose Patient Cup™
    - Bottles of 100 mL
    - Bottles of 500 mL
  - 20 mg per 5 mL
    - Bottles of 100 mL
    - Bottles of 500 mL
5. **METHOD(S) OF STERILIZATION:** N/A; Product is not sterile
6. **PHARMACOLOGICAL CATEGORY:** Narcotic analgesic

B. **SUPPORTING/RELATED DOCUMENTS:** None

C. **REMARKS:**

- The ONDQA PAL Initial Quality Assessment was on file in DFS (6/11/2007)
- The application was both a paper and electronic submission in CTD format.
- The NDA is for a marketed but unapproved drug, morphine sulfate oral solution.
- The consult requested a microbiological evaluation of the adequacy of the preservative assay acceptance criteria, microbial limits, and antimicrobial effectiveness testing. Attached to the consult page were copies of the drug product specifications and the results of the Preservative Effectiveness testing.

filename: N022195N000R1.doc

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**Executive Summary****I. Recommendations**

- A. Recommendation on Approvability** – Recommend for Approval
- B. Recommendations 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** – There are two separate drug product formulas, 10mg/5ml and 20mg/5ml, each containing different systems. The 10mg/5ml drug product contains sodium benzoate. The 20mg/5ml formula is with a combination of sodium benzoate, methyl- and propyl-paraben

**b(4)**

- B. Brief Description of Microbiology Deficiencies** - None

- C. Assessment of Risk Due to Microbiology Deficiencies** – Risk is low. The preservative systems appear adequate for the drug products.

**III. Administrative**

- A. Reviewer's Signature** \_\_\_\_\_  
Robert J. Mello, Ph.D.

- B. Endorsement Block** \_\_\_\_\_  
Bryan S. Riley, Ph.D.

- C. CC Block**  
In DFS

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/s/  
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Robert Mello  
2/26/2008 09:03:19 AM  
MICROBIOLOGIST

Recommend for Approval

Bryan Riley  
2/26/2008 09:07:16 AM  
MICROBIOLOGIST  
I concur.