

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**205552Orig2s000**

**MICROBIOLOGY / VIROLOGY REVIEW(S)**

MEMORANDUM



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE  
FOOD AND DRUG ADMINISTRATION  
CENTER FOR DRUG EVALUATION AND RESEARCH

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**DATE:** 8 July 2013

**TO:** NDA 205552

**FROM:** Bryan S. Riley, Ph.D.  
Team Leader (Acting)  
OPS/New Drug Microbiology Staff

**THROUGH:** Stephen E. Langille, Ph.D.  
Senior Review Microbiologist  
OPS/New Drug Microbiology Staff

**cc:** Diane C. Hanner  
Senior Program Management Officer  
OND/DHP

**SUBJECT:** Product Quality Microbiology assessment of Microbial Limits for  
Ibrutinib 140 mg Capsules [Submission Date: 28 June 2013]

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**The Microbial Limits specification for Ibrutinib 140 mg Capsules is acceptable from a Product Quality Microbiology perspective. Therefore, this submission is recommended for approval from the standpoint of product quality microbiology.**

Ibrutinib 140 mg Capsules are for oral administration.

The drug product is tested for Microbial Limits at release using a method consistent with USP Chapter <61> (Microbiological Examination of Non-sterile Products: Microbial Enumeration Tests) and <62> (Microbiological Examination of Non-sterile Products: Tests for Specified Microorganisms). The Microbial Limits acceptance criteria are consistent with USP Chapter <1111> (Microbiological Examination of Non-sterile Products: Acceptance Criteria for Pharmaceutical Preparations and Substances for Pharmaceutical Use).

# MEMORANDUM

**Table 1 – Microbial Limits Specification**

Test	Acceptance Criteria	Method
Total Aerobic Count	NMT (b) (4)	USP <61>
Total Combined Yeast and Mold Count	NMT	USP <61>
<i>E. coli</i>	Absent	USP <62>

The Microbial Limits test methods were verified to be appropriate for use with the drug product following procedures consistent with those in USP Chapter <61> and <62>.

The drug product will also be tested for Microbial Limits annually as part of the post-approval stability protocol.

**ADEQUATE**

**Reviewer Comments – The microbiological quality of the drug product is controlled via a suitable testing protocol.**

**END**

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/s/  
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BRYAN S RILEY  
07/09/2013

STEPHEN E LANGILLE  
07/09/2013