

**CENTER FOR DRUG EVALUATION AND RESEARCH**

**Approval Package for:**

***APPLICATION NUMBER:***

**21-073/S-014**

***Trade Name:*** Actos

***Generic Name:*** (pioglitazone HCl)

***Sponsor:*** Takeda Pharmaceuticals North America, Inc.

***Approval Date:*** August 8, 2001

# CENTER FOR DRUG EVALUATION AND RESEARCH

*APPLICATION NUMBER:*

**21-073/S-014**

## CONTENTS

### Reviews / Information Included in this NDA Review.

<b>Approval Letter</b>	<b>X</b>
<b>Approvable Letter</b>	
<b>Labeling</b>	
<b>Medical Review(s)</b>	
<b>Chemistry Review(s)</b>	<b>X</b>
<b>Pharmacology Review(s)</b>	
<b>Statistical Review(s)</b>	
<b>Microbiology Review(s)</b>	
<b>Clinical Pharmacology/ Biopharmaceutics Review(s)</b>	
<b>Administrative/Correspondence Document(s)</b>	<b>X</b>

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**21-073/S-014**

**APPROVAL LETTER**



NDA 21-073/S-014

Takeda Pharmaceuticals, North America, Inc.  
Attention: Robert M. Pilson, RRh  
Manager, Regulatory Compliance  
475 Half Day Road, Suite 500  
Lincolnshire, IL 60059

Dear Mr. Pilson:

Please refer to your supplemental new drug application dated July 23, 2001, received July 24, 2001, submitted under section 505(b) of the Federal Food, Drug, and Cosmetic Act for Actos™ (pioglitazone hydrochloride) tablets, 15 mg, 30 mg, and 45 mg.

This supplemental new drug application provides for addition of \_\_\_\_\_ at \_\_\_\_\_ as a new packaging and labeling site for the drug product.

We have completed the review of this supplemental application, and it is approved.

We remind you that you must comply with the requirements for an approved NDA set forth under 21 CFR 314.80 and 314.81.

If you have any questions, please call Ms. Jena Weber, Regulatory Project Manager, at (301) 827-6422.

Sincerely,

*{See appended electronic signature page}*

Stephen K. Moore, Ph.D.  
Chemistry Team Leader I, for  
Division of Metabolic and Endocrine Drug Products,  
(HFD-510)  
DNDC II, Office of New Drug Chemistry  
Center for Drug Evaluation and Research

---

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

---

/s/

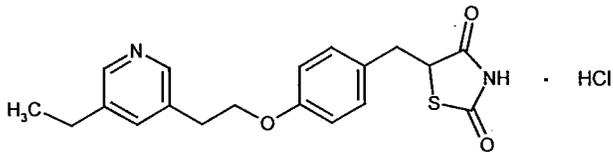
-----  
Stephen Moore  
8/3/01 05:52:37 PM

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**21-073/S-014**

**CHEMISTRY REVIEW(S)**

CHEMIST'S REVIEW		
<b>Organization CDER/HFD-510</b> Division of Metabolism and Endocrine Drug Products		<b>NDA # 21-073</b> Approved: 21-JUL-1999
<b>Name and Address of Applicant:</b> Takeda Pharmaceuticals North America, Inc. 475 Half Day Road, Suite 500 Lincolnshire, IL 60069 Phone: (847) 383-3023 Fax: (847) 383-3143		<b>Supplement SCM-014</b> Doc. 23-JUL-2001 Rec. 24-JUL-2001 <b>Name Of The Drug</b> Actos™ Tablets <b>Nonproprietary Name</b> Pioglitazone Hydrochloride Tablets
<b>Supplement provides for the addition of the _____ in _____ as a new packaging site for Actos™ Tablets.</b>		<b>Amendment(s)</b> --
<b>Pharmacological Category:</b> Hypoglycemic Agent, treatment of NIDDM.	<b>How Dispensed</b> Oral $\mathcal{R}$	<b>Supporting Documents</b> --
<b>Dosage Form</b> Tablets	<b>Potencies</b> 15-, 30- and 45-mg	
<b>Chemical Name and Structure</b> Pioglitazone $C_{19}H_{20}N_2O_3S \cdot HCl$ $MW = 356.43 + 36.57 = 392.90$  (±)-5[[4-[2-(5-ethyl-2-pyridinyl)ethoxy]phenyl]methyl]-2,4-thiazolidinedione monohydrochloride		
<b>Comments:</b> This Supplement -Changes Being Effected in 30 days- provides for the addition of the _____ a new packaging site for the drug product, Actos™ Tablets. A request to the District Office for the evaluation _____ as initiated on August 1, 2001. <b>Acceptable cGMP status</b> , based on profile, was given on 02-AUG-2001 by the Office of Compliance (copy attached). Batches of Actos™ tablets packaged in _____ facility will be analyzed and tested by the methods approved in the NDA. The Applicant, <b>Takeda Pharmaceuticals North America, Inc.</b> , commits to place samples of the first production batch of Actos™ tablets and at least one lot each year thereafter, in each proposed commercial container/closure system in the Marketed Product Stability Testing Program using the approved protocol in the application. <i>Acceptable, regulatory requirements are fulfilled.</i>		
<b>Conclusions and Recommendations:</b> _____ is acceptable for the packaging and labeling of the drug product Actos™ Tablets. From the CMC point of view, this supplement can be approved. <b>Issue Approval Letter.</b>		
<b>Reviewer Name (and signature)</b>  Xavier Ysern, PhD Review Chemist		<b>Date Completed:</b> 02-AUG-2001
<b>R/D Init.</b> Stephen Moore, PhD Chemist Team Leader		<b>filename:</b> /nda/21073s14.doc
<b>DISTRIBUTION:</b> Original: NDA 21-073 cc: HFD-510 Division File/ WeberJ / MooreS/ YsernX		

S-CBE 30 days  
 AP



---

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

---

/s/

-----  
Xavier Ysern  
8/2/01 10:26:17 AM  
CHEMIST

AP

Stephen Moore  
8/2/01 06:09:39 PM  
CHEMIST