



ANDA 207141

**ANDA APPROVAL**

ICON Clinical Research LLC  
U.S. Agent for Praxair Distribution, Inc.  
79 TW Alexander Dr.  
4401 Research Commons, Suite 300  
Durham, NC 27709  
Attention: Amy Kneifel  
Director, Regulatory Affairs

Dear Madam:

This letter is in reference to your abbreviated new drug application (ANDA) received for review on May 20, 2014, submitted pursuant to section 505(j) of the Federal Food, Drug, and Cosmetic Act (FD&C Act) for Noxivent (Nitric Oxide Gas for Inhalation, 100 ppm and 800 ppm).<sup>1</sup>

Reference is also made to any amendments submitted prior to the issuance of this letter.

We have completed the review of this ANDA and have concluded that adequate information has been presented to demonstrate that the drug is safe and effective for use as recommended in the submitted labeling. Accordingly, the ANDA is **approved**, effective on the date of this letter. We have determined your Noxivent (Nitric Oxide Gas for Inhalation, 100 ppm and 800 ppm), to be bioequivalent and therapeutically equivalent to the reference listed drug (RLD), Inomax Gas for Inhalation, 100 ppm and 800 ppm, of Mallinckrodt Hospital Products IP Limited (Mallinckrodt).

The RLD upon which you have based your ANDA, Mallinckrodt's Inomax Gas for Inhalation, 100 ppm and 800 ppm, is subject to periods of patent protection. The following patents and expiration dates (with pediatric exclusivity added) are currently listed in the Agency's publication titled *Approved Drug Products with Therapeutic Equivalence Evaluations* (the "Orange Book"):

<u>U.S. Patent Number</u>	<u>Expiration Date</u>
8,282,966 (the '966 patent)	December 30, 2029
8,291,904 (the '904 patent)	July 6, 2031
8,293,284 (the '284 patent)	December 30, 2029
8,431,163 (the '163 patent)	December 30, 2029
8,573,209 (the '209 patent)	July 6, 2031
8,573,210 (the '210 patent)	July 6, 2031
8,776,794 (the '6,794 patent)	July 6, 2031
8,776,795 (the '795 patent)	July 6, 2031
8,795,741 (the '741 patent)	December 30, 2029
8,846,112 (the '112 patent)	December 30, 2029
9,265,911 (the '911 patent)	July 6, 2031 (for 800 ppm strength only)
9,279,794 (the '9,794 patent)	August 19, 2034 (for 800 ppm strength only)
9,295,802 (the '802 patent)	July 6, 2031 (for 800 ppm strength only)

9,408,993 (the '993 patent)  
9,770,570 (the '570 patent)

July 6, 2031 (for 800 ppm strength only)  
November 3, 2036 (for 800 ppm strength only)

With respect to the '966, '284, '163, '209, '741, and '112 patents, and the drug product claims associated with the '904, '210, '6,794, '795, '911, '9,794, '802, and '993 patents,<sup>2</sup> your ANDA contains paragraph IV certifications under section 505(j)(2)(A)(vii)(IV) of the FD&C Act stating that the patents are invalid, unenforceable, or will not be infringed by your manufacture, use, or sale of Noxivent (Nitric Oxide Gas for Inhalation, 100 ppm and 800 ppm), under this ANDA. You have notified the Agency that Praxair Distribution, Inc. (Praxair) complied with the requirements of section 505(j)(2)(B) of the FD&C Act and that litigation was initiated against Praxair for infringement of the '996, '904, '284, '163, '209, '210, '6,794, '795, '741, '112, '911, '9,794, and '802 patents in the United States District Court for the District of Delaware [Mallinckrodt Hospital Products IP Ltd., INO Therapeutics LLC and Ikaria, Inc., v. Praxair Distribution, Inc. and Praxair, Inc., Civil Action No. 15-00170]. You have also notified the Agency that on September 5, 2017, the court decided that the '966, '284, '163, '741, and '112 patents are invalid, and that the '209, '6,794, '795, '911, '9,794, and '802 patents are not infringed.

With respect to the '570 patent, and the method of use claims associated with the '904, '210, '6,794, '795, '911, '9,794, 802, and '993 patents, your ANDA contains statements under section 505(j)(2)(A)(viii) of the FD&C Act that these are method-of-use patents that do not claim any indication or other conditions of use for which you are seeking approval under your ANDA.

With respect to 180-day generic drug exclusivity, we note that Praxair was the first ANDA applicant for Nitric Oxide Gas for Inhalation, 100 ppm and 800 ppm, to submit a substantially complete ANDA with a paragraph IV certification. Therefore, with this approval, Praxair may be eligible for 180 days of generic drug exclusivity for Nitric Oxide Gas for Inhalation, 100 ppm and 800 ppm. This exclusivity, which is provided for under 505(j)(5)(B)(iv) of the FD&C Act, would begin to run from the date of the commercial marketing identified in section 505(j)(5)(B)(iv). The Agency notes that Praxair failed to obtain tentative approval of this ANDA within 30 months after the date of which the ANDA was filed. See section 505(j)(5)(D)(i)(IV) of the FD&C Act (forfeiture of exclusivity for failure to obtain tentative approval). The Agency is not, however, making a formal determination at this time of Praxair's eligibility for 180-day generic drug exclusivity. It will do so only if a subsequent paragraph IV applicant becomes eligible for full approval (a) within 180 days after Praxair begins commercial marketing of Nitric Oxide Gas for Inhalation, 100 ppm and 800 ppm, or (b) at any time prior to the expiration of the '209, '210, '966, '904, '284, and '163 patents if Praxair has not begun commercial marketing. Please submit correspondence to this ANDA notifying the Agency within 30 days of the date of the first commercial marketing of this drug product or the RLD. If you do not notify the Agency within 30 days, the date of first commercial marketing will be deemed to be the date of the drug product's approval. See 21 CFR 314.107(c)(2).

Under section 506A of the FD&C Act, certain changes in the conditions described in this ANDA require an approved supplemental application before the change may be made.

Please note that if FDA requires a Risk Evaluation and Mitigation Strategy (REMS) for a listed drug, an ANDA citing that listed drug also will be required to have a REMS. See section 505-1(i) of the FD&C Act.

## **REPORTING REQUIREMENTS**

Postmarketing reporting requirements for this ANDA are set forth in 21 CFR 314.80-81 and 314.98 and at section 506I of the FD&C Act. The Agency should be advised of any change in the marketing status of this drug or if this drug will not be available for sale after approval. In particular, under section 506I(b) of the FD&C Act, you are required to notify the Agency in writing within 180 days from the date of this letter if this drug will not be available for sale within 180 days from the date of approval. As part of such written notification, you must include (1) the identity of the drug by established name and proprietary name (if any); (2) the ANDA number; (3) the strength of the drug; (4) the date on which the drug will be available for sale, if known; and (5) the reason for not marketing the drug after approval.

## **PROMOTIONAL MATERIALS**

You may request advisory comments on proposed introductory advertising and promotional labeling materials prior to publication or dissemination. Please note that these submissions are voluntary. To do so, submit, in triplicate, a cover letter requesting advisory comments, the proposed materials in draft or mock-up form with annotated references, and the package insert (PI), Medication Guide, and patient PI (as applicable) to:

OPDP Regulatory Project Manager  
Food and Drug Administration  
Center for Drug Evaluation and Research  
Office of Prescription Drug Promotion  
5901-B Ammendale Road  
Beltsville, MD 20705

Alternatively, you may submit a request for advisory comments electronically in eCTD format. For more information about submitting promotional materials in eCTD format, see the draft Guidance for Industry (available at:

<http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM443702.pdf>).

You must also submit final promotional materials and package insert(s), accompanied by a Form FDA 2253, at the time of initial dissemination or publication [21 CFR 314.81(b)(3)(i)]. Form FDA 2253 is available at:

<http://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Forms/UCM083570.pdf>.

Information and Instructions for completing the form can be found at:

<http://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Forms/UCM375154.pdf>. For more information about submission of promotional materials to the Office of Prescription Drug Promotion (OPDP), see: <http://www.fda.gov/AboutFDA/CentersOffices/CDER/ucm090142.htm>.

## **ANNUAL FACILITY FEES**

The Generic Drug User Fee Amendments of 2012 (GDUFA) (Public Law 112-144, Title III) established certain provisions<sup>3</sup> with respect to self-identification of facilities and payment of annual facility fees. Your ANDA identifies at least one facility that is subject to the self-identification requirement and payment of an annual facility fee. Self-identification must occur by June 1<sup>st</sup> of each year for the next fiscal year. Facility fees must be paid each year by the date specified in the Federal Register notice announcing facility fee amounts.

All finished dosage forms (FDFs) or active pharmaceutical ingredients (APIs) manufactured in a facility that has not met its obligations to self-identify or to pay fees when they are due will be deemed misbranded. This means that it will be a violation of federal law to ship these products in interstate commerce or to import them into the United States. Such violations can result in prosecution of those responsible, injunctions, or seizures of misbranded products. Products misbranded because of failure to self-identify or pay facility fees are subject to being denied entry into the United States.

### **CONTENT OF LABELING**

As soon as possible, but no later than 14 days from the date of this letter, submit, using the FDA automated drug registration and listing system (eLIST), the content of labeling [21 CFR 314.50(l)] in structured product labeling (SPL) format, as described at:

<http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm>, that is identical in content to the approved labeling (including the package insert, and any patient package insert and/or Medication Guide that may be required). Information on submitting SPL files using eLIST may be found in the guidance for industry titled "SPL Standard for Content of Labeling Technical Qs and As" at:

<http://www.fda.gov/downloads/DrugsGuidanceComplianceRegulatoryInformation/Guidances/UCM072392.pdf>. The SPL will be accessible via publicly available labeling repositories.

Sincerely yours,

*{See appended electronic signature page}*

Vincent Sansone, PharmD  
Deputy Director  
Office of Regulatory Operations  
Office of Generic Drugs  
Center for Drug Evaluation and Research

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<sup>1</sup> We note that the reference listed drug (RLD) upon which you have based this ANDA, Mallinckrodt Hospital Products IP Limited's (Mallinckrodt's) Inomax for Inhalation, 100 ppm, is no longer being marketed in the United States and is currently listed in the discontinued section of FDA's *Approved Drug Products with Therapeutic Equivalence Evaluations* (the "Orange Book"). The Agency has determined that Mallinckrodt's Inomax for Inhalation, 100 ppm, was not withdrawn from sale for reasons of safety or effectiveness. FDA published this determination in the *Federal Register* (81 FR 3430; Jan. 21, 2016). This determination allows the Agency to approve ANDAs for the discontinued drug product.

<sup>2</sup> The Agency notes that the '6,794, '795, '741, '112, '911, '9,794, '802, '993, and '570 patents were submitted to the Agency after submission of your ANDA. Litigation, if any, with respect to these patents would not create a statutory stay of approval.

<sup>3</sup> Some of these provisions were amended by the Generic Drug User Fee Amendments of 2017 (GDUFA II) (Public Law 115-52, Title III).



Vincent  
Sansone

Digitally signed by Vincent Sansone  
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