CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

215712Orig1s000

PRODUCT QUALITY REVIEW(S)

Recommendation: APPROVAL

NDA 215712
Review # 1

Drug Name/Dosage Form	Mometasone Furoate Monohydrate nasal spray
Strength	0.05%, 50 mcg/spray
Route of Administration	Intranasal
Rx / OTC Dispensed	OTC
Applicant	Perrigo Pharma International Designated Activity Company (PPI-DAC)
US agent, if applicable	N/A

SUBMISSION(S) REVIEWED	DOCUMENT DATE	DISCIPLINE(S) AFFECTED
Original	17-May-2021	All
Labeling information	10-June-2021	ONDP (drug product, microbiology)
Labeling information	03-Sept-2021	ONDP (drug product, microbiology)
Response to quality IR	09-Sept-2021	ONDP (drug product, OPMA and microbiology)
Response to quality IR	29-Oct-2021	ONDP (Drug product, microbiology)
Response to quality IR	12-Jan-2022	ONDP/DNDPIII (drug product, microbiology)

Quality Review Team

DISCIPLINE	REVIEWER	BRANCH/DIVISION
Drug Substance	Jing Li, Ph.D.	ONDP/DNDAPI/ Branch III
Drug Product	Elise Luong, Ph.D.	ONDP/DNDP-III/ Branch VI
Microbiology	Yan Zheng, Ph.D.	ONDP/OPMA/DMAII/MAB4
Process & facility	Wenchun Feng Ph.D.	OPMA/DPMAIV/PMB12
Regulatory Business Process Manager	Teshara Bouie	OPRO/DRBPMI/RBPMBI
Application Technical Lead	Swapan K. De, Ph.D.	ONDP/DNDP-III/ Branch VI
Laboratory (OTR)	NA	NA
Environmental Assessment (EA) and Labeling	Elise Luong, Ph.D.	ONDP/DNDP-III/ Branch VI

Quality Review Data Sheet

1. RELATED/SUPPORTING DOCUMENTS:

A. DMFs/MAF:

DMF #	Type	Holder	Item Referenced	Code[1]	Status[2]	Date Review Completed	Comments
(b) (4)	II		(b) (4)	1	Adequate		None
	III			4	Adequate		None
	III			4	Adequate		None
	III			4	Adequate		None
	III			4	Adequate		None
	III			4	Adequate		None
	III			4	Adequate		None

(b) (4)	III	(b) (4)	4	Adequate		None
	III		4	Adequate		None

C. [1] Action codes for DMF Table:
D. 1 – DMF Reviewed.
E. Other codes indicate why the DMF was not reviewed, as follows:
F. 2 –Type 1 DMF
G. 3 – Reviewed previously and no revision since last review
H. 4 – Sufficient information in application
I. 5 – Authority to reference not granted
J. 6 – DMF not available
K. 7 – Other (explain under "Comments")
L. [2] Adequate, Inadequate, or N/A (There is enough data in the application, therefore the DMF did not need to be reviewed)

[1] Adequate, Adequate with Information Request, Deficient, or N/A (There is enough data in the application, therefore the DMF did not need to be reviewed

B. Other Documents: *IND, RLD, or sister applications*

DOCUMENT	APPLICATION NUMBER	DESCRIPTION
IND	142446	Mometasone furoate monohydrate Nasal spray, 50 mcg/spray
NDA	020-762	Mometasone furoate monohydrate Nasal Spray, 50 mcg/spray

2. CONSULTS:

DISCIPLINE	STATUS	RECOMMENDATION	DATE	REVIEWER
Biostatistics	NA			
Pharmacology/Toxicology	NA			
CDRH	NA			
Clinical	NA			
Office of Surveillance	NA			

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(Other reviews are in IQA submitted in DARRTS)

Executive Summary (NDA-215712)

I. Recommendations

Regarding Chemistry Manufacturing and Controls, the application may be approved.

A. Recommendation and Conclusion on Approvability

Regarding quality aspects of the submitted application the drug substance, drug product, biopharmaceutics, microbiology, process, and facility sections are reviewed and found adequate to support the approval of the application (see attached reviews). The drug product is granted a 24-month shelf life when stored at controlled room temperature.

B. Recommendation on Phase 4 (Post-Marketing) Commitments, Agreements, and/or Risk Management Steps, if Approvable

None

II. Summary of Quality Assessments:

Perrigo R & D Company submits the 505(b)(1) new drug application (NDA) for the partial Rx to OTC Switch of Mometasone Furoate Nasal Spray, NDA 020-762 (NASONEX®) for the temporary relieve of nasal symptoms (nasal congestion, runny nose, sneezing and itchy nose) of hay fever or other respiratory allergies, in consumers ages 2 and older. Mometasone furoate Nasal Spray, 50 mcg/spray was approved on 01 October 1997, as NASONEX® for prescription use through NDA 020762 on 01 October 1997. Perrigo has acquired right of reference to NDA 020762 and is submitting this partial Rx to over the counter (OTC) switch NDA for the indication as stated above. Mometasone furoate nasal spray is a corticosteroid with potent anti-inflammatory properties.

Information on biowaiver request submitted by the applicant under 21 CFR 320.22(d)(2) is reviewed by the Biopharmaceutics reviewer (see biopharmaceutics review dated 6/28/21). Since the formulation, manufacturing process, and container (i.e., spray bottles, pumps, actuators) remain the same as the Rx drug product approved under NDA 020762, it was concluded that the bioequivalence between this proposed product and the approved Rx is self-evident and that bridging of formulations is not necessary.

The applicant didn't perform in-use stability studies for the finished product and a discard date is not proposed following opening the bottle. It was a quality concern since the OTC products are often used intermittently and theoretically in-use period are open-ended. The Mometasone Furoate Nasal Spray, 50 mcg/spray, 120 spray configurations contain sufficient volume for (b) (4) sprays, or (b) (4) days of dosing based on a daily dose of 2 sprays in each nostril. In addition, it is known that the products (b) (4)

Thus, micro reviewer asked for an extended AET for at least (b) (4) days to support the proposed in-use period and recommended to include a discard date for the in-use period. The applicant provided extended AET data and include updated

labeling statement "discard 75 days after first use of the product" (see details in micro review dated 1/13/2022).
The proprietary name 'Nasonex 24HR Allergy' is found conditionally acceptable by DMEPA (review dated 09/08/2021).

A. Drug Product Quality Summary

1. **Strength:** Mometasone furoate monohydrate 0.05% 50 mcg/spray

2. **Description/Commercial Image:**

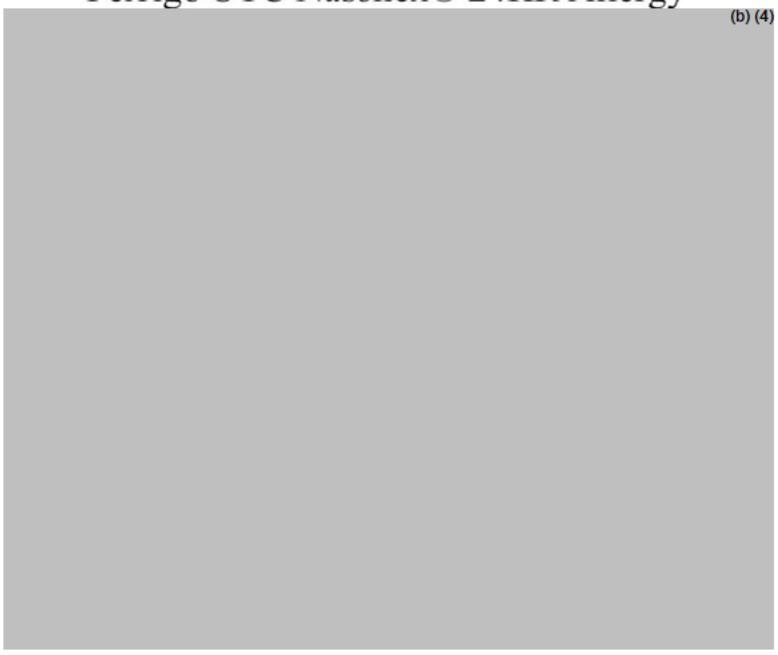
Mometasone Furoate Nasal spray formulation is white to off-white opaque non-sterile suspension having a pH between 4.3 and 4.9. Perrigo OTC Mometasone Furoate Nasal Spray, 50 mcg/spray is supplied in a white, high density polyethylene bottle fitted with a white metered-dose, manual spray pump, and blue cap. The drug product is supplied in fill volumes of 7.5 mL, 10 mL and 17 mL. Each metered spray delivers a mean volume of 0.10 mL containing 50 mcg of Mometasone furoate. Same formulation is used as NDA 20762. The only difference between the approved Rx NDA 020-762 formula and the Perrigo OTC formula will be the (b) (4) (b) (4) (b) (4) All excipients used for the manufacture of the drug product are of USP/NF grade. Inactive ingredients are same as approved in NDA (b) (4). The direction of use is the same as in the referenced NDA (b) (4). The pump should be primed before initial use by actuations until a fine mist appears and re-primed after storage unused for one week or more. The recommended dosage for adults & children ≥ 12 years of age is 2 sprays per nostril once daily. The recommended dosage for children 2 -11 years of age is 1 spray in each nostril once daily.
The proposed shelf-life of the product is 24 months when stored at controlled room temperature, 20°C - 25°C and is (see drug product review).

3. **Summary of Product Design**

The proposed NDA application is for the commercial OTC formulation will have the same container closure system as currently approved for Rx Nasonex (mometasone furoate monohydrate nasal spray, 50 mcg/spray) NDA 20762. The proposed product OTC NASONEX Nasal Spray, 50 mcg/spray is packaged into 19 mL or 13 mL oval HDPE white bottles. The bottles have a blue, (b) (4) cap and a white, (b) (4) actuator and (b) (4) pump. (b) (4) (b) (4)

Perrigo OTC Nasonex® 24HR Allergy[1]

(b) (4)

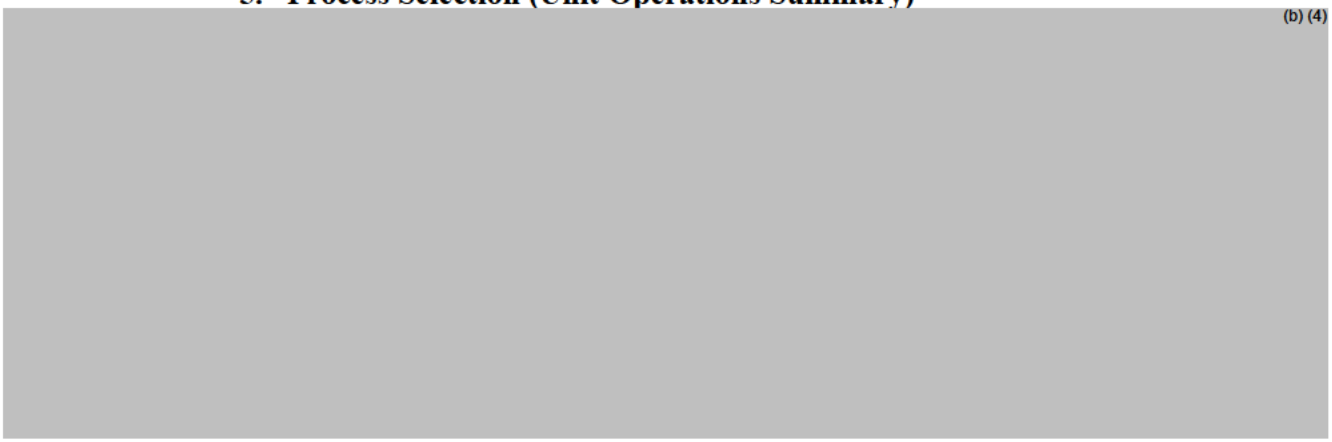


4. **List of Excipients:**

Benzalkonium chloride, citric acid, glycerin, microcrystalline cellulose, carboxymethylcellulose sodium, polysorbate 80, purified water, sodium citrate.

5. **Process Selection (Unit Operations Summary)**

(b) (4)



All the facilities proposed for the drug product manufacturing and testing are in compliant status. Based on the low manufacturing risk of this drug product, past device experience from the drug product manufacturing firm, recent inspection history and current compliant status the facilities are recommended for approval.

6. **Container Closure**:

The sponsor has provided comprehensive information about the container closure system. The proposed product OTC NASONEX Nasal Spray, 50 mcg/spray is packaged into 19 mL or 13 mL oval HDPE white bottles. Thirteen mL HDPE bottle will be used for 30

spray size and nineteen mL bottle size will be used for 120 and 60 spray sizes presentations. The bottles have a blue, (b) (4) cap and a white, (b) (4) actuator and (b) (4) pump. All components used in packaging have been previously used in FDA approved product (NDA 20-762). The suppliers for each component, DMF number and letter of authorization are provided in the application.

7. Expiration Date & Storage Conditions

The drug product is granted a 24-month shelf life when stored at controlled room temperature, 20°C - 25°C (68°F – 77°F).
The storage statement will be written as "Store between 20ºC – 25ºC (68ºF - 77ºF).

8. List of co-packaged components: None

B. Summary of Drug Product Intended Use

Proprietary Name of the Drug Product	Nasonex 24HR Allergy'
Non Proprietary Name of the Drug Product	Mometasone furoate monohydrate nasal spray, 50 mcg/spray
Non Proprietary Name of the Drug Substance	Mometasone furoate
Proposed Indication(s) including Intended Patient Population	Temporary relief of symptoms associated with hay fever or other respiratory allergies, including: nasal congestion, runny nose, sneezing, and itchy nose.
Duration of Treatment	(b) (4)
Maximum Daily Dose	0.20 mg
Alternative Methods of Administration	None

C. Biopharmaceutics Considerations

1. BCS Classification: N/A.
   - Drug Substance:
   - Drug Product:

2. Biowaivers/Biostudies (For NDA only)
   - Biowaiver Requests: Yes
   - PK studies: No
   - IVIVC: No

D. Novel Approaches: N/A

E. Any Special Product Quality Labeling Recommendations
Established name of the drug product:
Mometasone furoate monohydrate

F. Life Cycle Knowledge Information (see table below)

Risk Assessment:

Product attribute/CQA	Factors that can impact the CQA	Probability (O)	Severity of Effect (S)	Detectability (D)	FMECA RPN Number	Comment
Assay, stability	• Formulation • Raw materials • Process parameters • Scale/equipments • Site	2	3	2	12	(b) (4)
Physical stability (API)	• Formulation • Raw materials • Process parameters • Scale/equipment • Site	2	2	2	8	
Dosing accuracy	• Formulation • Raw materials • Process parameters • Scale/equipment • Site	3	2	2	12	
Microbial Limits	• Formulation • Raw materials • Process parameters •Scale/equipment • Site	2	2	2	8	

Life Cycle Knowledge Information related to Post-Approval Changes: None

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OVERALL ASSESSMENT AND SIGNATURES: EXECUTIVE SUMMARY

Regarding Chemistry Manufacturing and Controls, the application may be approved.

Application Technical Lead Signature:

Swapan K De, Ph.D

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CHAPTER III: ENVIRONMENTAL

R REGIONAL INFORMATION

Environmental Analysis (EA)

In accordance with 21 CFR 25.31(b), Perrigo Pharma International DAC claims a categorical exclusion from the requirement to prepare an Environmental Assessment as the concentration of mometasone furoate that will be utilized under this NDA for commercialization is not expected to exceed the threshold of 1 μg/L (i.e., 1 ppb).

Perrigo Pharma International DAC claims that to the best of the company's knowledge, no extraordinary circumstances exist, per 21 CFR 25.15(d) and CFR 25.21. In addition, Perrigo Pharma International DAC certifies that the production of OTC Mometasone Furoate Nasal Spray, 0.05% (w/w), 50 μg/spray meets the requirements of all Federal State and Local Environmental Laws. The undersigned certifies that the above-mentioned information is true, accurate, and complete to the best of his knowledge.

CERTIFICATE OF COMPLIANCE

The facilities used for holding and processing all materials used in the manufacture of OTC Mometasone Furoate Nasal Spray, 50 mcg/spray are in compliance with local, state and federal environmental regulations and with§ 21 CFR 25, Subpart C- Categorical Exclusions.

Garret Miller

Garret Miller
Sr. Manager, Environmental Health and Safety

October 16, 2020
Date

Perrigo Company
515 Eastern Ave., Allegan, MI 49010
(269) 673-8451

Assessment: ***Adequate from a CMC perspective.***

To the best knowledge of the applicant, no extraordinary circumstances exist associated with the proposed actions. The EA review team will document its review under the OND's Integrated Review Process (if applicable).

Primary Environmental Assessor Name and Date: Elise Luong, Ph.D.; 01/10/2022

Secondary Assessor Name and Date (and Secondary Summary, as needed): Danae Christodoulou, Ph.D.; 01/24/2022 I concur with the reviewer's assessment.

CHAPTER IV: LABELING

IQA NDA Assessment Guide Reference

1.0 PRESCRIBING INFORMATION

Assessment of Product Quality Related Aspects of the Prescribing Information: Labeling data from the approved product will be adopted for the DFL label (OTC Use). Below is evaluation of the data for the prescription product.

1.1 HIGHLIGHTS OF PRESCRIBING INFORMATION

Item	Information Provided in the NDA	Assessor's Comments
Product Title in Highlights		
Proprietary name	Nasonex 24HR ALLERGY	Propriety name was conditional approved by DMEPA on 11/20/2019 for OTC use.
Established name(s)	Mometasone Furoate; Mometasone Furoate Monohydrate	Adequate
Route(s) of administration	Nasal	Adequate
Dosage Forms and Strengths Heading in Highlights		
Summary of the dosage form(s) and strength(s) in metric system.	(b) (4) 0.05% nasal spray suspension 50 mcg per spray	Adequate
Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state "functionally scored"	N/A	N/A

For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use). Other package terms include pharmacy bulk package and imaging bulk package.	N/A	N/A

1.2 FULL PRESCRIBING INFORMATION

1.2.1 Section 2 (DOSAGE AND ADMINISTRATION)

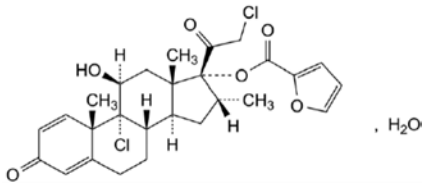
Item	Information Provided in the NDA	Assessor's Comments
DOSAGE AND ADMINISTRATION section		
Special instructions for product preparation (e.g., reconstitution and resulting concentration, dilution, compatible diluents, storage conditions needed to maintain the stability of the reconstituted or diluted product)	Prime the bottle before use for the first time, and have not used in one week, as well as after cleaning a nozzle.	Adequate

1.2.2 Section 3 (DOSAGE FORMS AND STRENGTHS)

Item	Information Provided in the NDA	Assessor's Comments
DOSAGE FORMS AND STRENGTHS section		
Available dosage form(s)	Metered-spray suspension	Adequate
Strength(s) in metric system	Mometasone Furoate Monohydrate 0.05% 50 mcg per spray	Adequate
If the active ingredient is a salt, apply the USP Salt Policy per FDA Guidance	N/A	N/A
A description of the identifying characteristics of the dosage forms, including shape, color, coating, scoring, and imprinting	Section 3.2.P.1	Adequate
Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state "functionally scored"	N/A	N/A
For injectable drug products for parental administration, use appropriate labeling term (e.g., single-dose, multiple-dose, single-patient-use). Other package type terms include pharmacy bulk package and imaging bulk package.	N/A	N/A

1.2.3 Section 11 (DESCRIPTION)

Item	Information Provided in the NDA	Assessor's Comments
DESCRIPTION section		
Proprietary Name Established name(s)	NASONEX 24HR ALLERGY	Propriety name was conditional approved by DMEPA on 11/20/19 for OTC use.
Dosage form(s) and route(s) of administration	Metered-spray suspension and nasal	Adequate
If the active ingredient is a salt, apply the USP Salt Policy and include the equivalency statement per FDA Guidance.	N/A	N/A
List names of all inactive ingredients. Use USP/NF names. Avoid Brand names	Benzalkonium chloride Citric acid Glycerin Microcrystalline cellulose & carboxymethylcellulose sodium Polysorbate 80 Purified water Sodium citrate	Acceptable
For parenteral injectable dosage forms, include the name and quantities of all inactive ingredients. For ingredients added to adjust the pH or make isotonic, include the name and statement of effect.	N/A	N/A
If alcohol is present, must provide the amount of alcohol in terms of percent volume of absolute alcohol	The drug product does not contain alcohol	N/A
Statement of being sterile (if applicable)	This is a non-sterile product	N/A

Pharmacological/ therapeutic class	Corticosteroid	Adequate
Chemical name, structural formula, molecular weight	[(8*S*,9*R*,10*S*,11*S*,13*S*,14*S*,16*R*,17*R*)-9-chloro-17-(2-chloroacetyl)-11-hydroxy-10,13,16-trimethyl-3-oxo-6,7,8,11,12,14,15,16-octahydrocyclopenta[a]phenanthren-17-yl]furan-2-carboxylate;hydrate  Molecular weight: 539.44 $C_{27}H_{30}Cl_2O_6 \bullet H_2O$	Adequate
If radioactive, statement of important nuclear characteristics	N/A	N/A

Other important chemical or physical properties (such as pKa or pH)	• White (b) (4) powder (b) (4) • Practically insoluble in water • Soluble in acetone and (b) (4) (b) (4)	Adequate
If radioactive, statement of important nuclear characteristics.	N/A	N/A

Section 11 (DESCRIPTION) Continued

Item	Information Provided in the NDA	Assessor's Comments
For oral prescription drug products, include gluten statement if applicable	N/A	N/A
Remove statements that may be misleading or promotional (e.g., "synthesized and developed by Drug Company X," "structurally unique molecular entity"	There is no misleading statement on the labels	Adequate

1.2.4 Section 16 (HOW SUPPLIED/STORAGE AND HANDLING)

Item	Information Provided in the NDA	Assessor's Comments
HOW SUPPLIED/STORAGE AND HANDLING section		
Available dosage form(s)	Metered-spray suspension	Adequate
Strength(s) in metric system	Mometasone Furoate Monohydrate 0.05% 50 mcg per spray	Adequate
Available units (e.g., bottles of 100 tablets)	• 7.5 mL fill / 13 mL bottle / 30 sprays • 10.0 mL fill / 19 mL bottle / 60 sprays • 17 mL fill / 19 mL bottle / 120 sprays	Adequate
Identification of dosage forms, e.g., shape, color, coating, scoring, imprinting, NDC number	(b) (4) aqueous suspension having a pH between 4.3 and 4.9	Adequate. The description has been provided in the NDA.
Assess if the tablet is scored. If product meets guidelines and criteria for a scored tablet, state "functionally scored"	N/A	N/A
For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use). Other package terms include pharmacy bulk package and imaging bulk package.	N/A	N/A

Section 16 (HOW SUPPLIED/STORAGE AND HANDLING) (Continued)

Item	Information Provided in the NDA	Assessor's Comments
Special handling about the supplied product (e.g., protect from light, refrigerate). If there is a statement to "Dispense in original container," provide reason why (e.g., to protect from light or moisture, to maintain stability, etc.)	Store between at 20°-25°C (68° -77°F)	Adequate
If the product contains a desiccant, ensure the size and shape differ from the dosage form and desiccant has a warning such as "Do not eat."	N/A	N/A
Storage conditions. Where applicable, use USP storage range rather than storage at a single temperature.	Store between at 20°-25°C (68° -77°F)	The storage condition is supported by stability data and is acceptable.
Latex: If product does not contain latex and manufacturing of product and container did not include use of natural rubber latex or synthetic derivatives of natural rubber latex, state: "Not made with natural rubber latex. Avoid statements such as "latex-free."	N/A	N/A
Include information about child-resistant packaging	N/A	N/A

1.2.5 Other Sections of Labeling

There may be other sections of labeling that contain product-quality related information. For example, there are specific required/recommended warnings for certain inactive ingredients [e.g., aspartame, aluminum in large and small volume parenteral, sulfites, FD&C Yellow Number 5 (tartrazine), and benzyl alcohol]. Please notify the prescription drug division if the product contains any of these inactive ingredients.

Please include your comments about other sections of labeling if they contain product quality information.

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The step-by-step instruction is on the Consumer Information Leaflet (CIL).

(b) (4)

From CMC's perspective, the cleaning instruction for the clogged nozzle is clear. SATISFACTORY.

1.2.6 Manufacturing Information After Section 17 (for drug products)

Item	Information Provided in the NDA	Assessor's Comments
Manufacturing Information After Section 17		
Name and location of business (street address, city, state, and zip code) of the manufacturer, distributor, and/or packer	Distributed by: Perrigo® Allegan, MI 49010 (b) (4)	Adequate

2.0 PATIENT LABELING

Assessment of Product Quality Related Aspects of Patient Labeling (e.g., Medication Guide, Patient Information, Instructions for Use):

The product labels have all the relevant information in accordance with regulatory requirements from a CMC perspective. Labeling will be finalized through OND during labeling negotiations with the applicant.

Any deficiencies should be listed at the end in the "ITEMS FOR ADDITIONAL ASSESSMENT."

None.

3.0 CARTON AND CONTAINER LABELING

3.1 Container Label

(Representative examples of a proposed containers)

Proposed NASONEX™ 24HR Allergy

120 Sprays (17 mL) HDPE Bottle Label

(b) (4)

[redacted]

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Item	Information Provided in the NDA	Assessor's Comments about Carton Labeling
Proprietary name, established name, and dosage form (font size and prominence)	NASONEX 24HR Allergy	Adequate
Dosage strength	Mometasone Furoate Monohydrate 0.05%, 50 mcg per spray	Adequate
Route of administration	nasal spray	Adequate
If the active ingredient is a salt, include the equivalency statement per FDA Guidance	N/A	N/A
Net contents (e.g., tablet count)	• 7.5 mL fill / 13 mL bottle / 30 sprays • 10.0 mL fill / 19 mL bottle / 60 sprays • 17 mL fill / 19 mL bottle / 120 sprays	Adequate
"Rx only" displayed on the principal display	N/A (This is OTC product)	N/A
NDC number	Labels contain space for NDC number	Adequate
Lot number and expiration date	Labels contains space for Lot number and expiration date	Adequate
Storage conditions. If applicable, include a space on the carton labeling for the user to write the new BUD.	Store between 20°-25°C (68° to 77°F).	Adequate

For injectable drug products for parental administration, use appropriate package type term (e.g., single-dose, multiple-dose, single-patient-use)	N/A	N/A
Other package terms include pharmacy bulk package and imaging bulk package which require “Not for direct infusion” statement.	N/A	N/A
If alcohol is present, must provide the amount of alcohol in terms of percent volume of absolute alcohol	The product does not contain alcohol.	Adequate
Bar code	Labels have space for bar code	Adequate

Item	Information Provided in the NDA	Assessor's Comments about Carton Labeling
Name of manufacturer/distributor	Perrigo (b) (4) (b) (4)	Adequate
Medication Guide (if applicable)	Labels have Consumer Information Leaflet	Adequate
No text on Ferrule and Cap Overseal	N/A	N/A
When a drug product differs from the relevant USP standard of strength, quality, or purity, as determined by the application of the tests, procedures, and acceptance criteria set forth in the relevant compendium, its difference shall be plainly stated on its label.	There is no USP monograph for the drug product	N/A
And others, if space is available	N/A	N/A

Assessment of Carton and Container Labeling: *Adequate.*

The product labels have all the relevant information in accordance with regulatory requirements from a CMC perspective. Labeling will be finalized through OND during labeling negotiations with the applicant.

ITEMS FOR ADDITIONAL ASSESSMENT

None.

Overall Assessment and Recommendation:

The product labels are acceptable from a CMC perspective.

Primary Labeling Assessor Name and Date: Elise Luong, Ph.D., 01/10/2022

Secondary Assessor Name and Date (and Secondary Summary, as needed): Danae Christodoulou, Ph.D., 01/24/2022

Elise Luong

Digitally signed by Elise Luong
Date: 1/25/2022 01:12:32PM
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Danae Christodoulou

Digitally signed by Danae Christodoulou
Date: 1/25/2022 03:51:05PM
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CHAPTER VII: MICROBIOLOGY

IQA NDA Assessment Guide Reference

Product Information	
NDA Number	215172
Assessment Cycle Number	01
Drug Product Name/ Strength	Mometasone Furoate Nasal Spray, 50 mcg/spray
Route of Administration	Nasal Spray
Applicant Name	Perrigo Pharma International Designated Activity Company (PPI-DAC)
Therapeutic Classification/ OND Division	OND/ONPD/DNDP1
Manufacturing Site	Perrigo New York, Inc. (PNY) 1700 Bathgate Ave. Bronx, NY 10457
Method of Sterilization	N/A for non-sterile products

Assessment Recommendation: **Adequate**

Assessment Summary:

Document(s) Assessed	Date Received
ORIG-1	05/17/2021
Labeling information	06/10/2021
Labeling information	09/03/2021
IR response	09/09/2021
IR response	10/29/2021
IR response	01/12/2022

List Submissions being assessed (table):

Highlight Key Issues from Last Cycle and Their Resolution: N/A

Remarks: This is a 505(b)(1) application for the Rx-to-OTC switch of Nasonex® (mometasone furoate monohydrate) Nasal Spray, 50 mcg/spray (NDA 20762). Perrigo acquired right of reference to Rx NDA 20762. Submission dated 09/09/2021 is provided in response to the Agency's information request dated 07/30/2021. Submission dated 10/29/2021 is provided in response to the Agency's information request dated 09/29/2021. Submission dated 01/12/2022 contains data for extended AET study.

Concise Description of Outstanding Issues
(List bullet points with key information and update as needed): N/A

Supporting Documents:

S DRUG SUBSTANCE

The manufacturing process for the drug substance is not reviewed because the drug substance is non-sterile.

P.1 DESCRIPTION OF THE COMPOSITION OF THE DRUG PRODUCT

The subject drug product is a Rx-to-OTC switch for NASONEX® Nasal Spray, 50 mcg/spray. The only difference between the approved Rx NDA formula and the Perrigo OTC formula will be the [redacted] (b) (4) [redacted] (b) (4).

The proposed OTC mometasone furoate nasal spray, 50 mcg/spray is supplied in a white, high-density polyethylene bottle fitted with a white metered-dose, manual spray pump, and blue cap. It is available in 3 different spray size: 120

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prays (17.0 mL); 60 sprays (10.0 mL); 30 sprays (7.5 mL). Each spray delivers 50 mcg of mometasone furoate per actuation.

Composition:

Composition Summary and IID Evaluation

Material Name	Ingredient Name	Standard	Function	%w/w	Unit Dose (mg)	Total Daily Intake (mg)	IID Limit[2]	Justification
Mometasone Furoate Monohydrate	Mometasone Furoate Monohydrate	N/A[3]	Active	0.05	0.05	0.2	No IID Limit	Not an Excipient
Benzalkonium Chloride (b) (4)	Benzalkonium Chloride	NF	(b) (4)					Less than IIDLimit
Citric Acid (b) (4)	Citric Acid (b) (4)	USP						Less than IID Limit
Glycerin, USP	Glycerin	USP						Less than IID Limit
(b) (4)	Microcrystalline Cellulose and Carboxymethylcellulose Sodium	NF						Less than IID Limit
Polysorbate 80	Polysorbate 80	NF						Less than IID Limit
Purified Water	Purified Water	USP						Other (see comments)[1]
Sodium Citrate (b) (4)	Sodium Citrate	USP						Less than IID Limit
			TOTAL	100.00	100.00			

[1]Purified water does not have a limit listed in the IID.
[2]http://www.accessdata.fda.gov/scripts/cder/iig/index.cfm
[3]Complies with the Ph.Eur. monograph for Mometasone Furoate Monohydrate. There is no USP monograph for the monohydrate form of Mometasone Furoate.

(image reproduced from submission 3.2.P.1, p. 4)

Container closure system:

Product configuration	Component	Description	Perrigo component#
120 and 60 spray count configuration	Bottle	19 mL Oval HDPE	(b) (4)
	Actuator	(b) (4)	
	Pump	(b) (4)	
	Overcap	(b) (4) blue	
30 spray count configuration	Bottle	13 mL Oval HDPE	
	Actuator	(b) (4)	
	Pump	(b) (4)	
	Overcap	(b) (4) blue	

Assessment: Adequate

P.2 PHARMACEUTICAL DEVELOPMENT

(b) (4)

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Yan Zheng

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BIOPHARMACEUTICS REVIEW MEMO Office of New Drug Products		
Application No.	NDA-215712-ORIG-1	
Applicant	Perrigo R&D Company	
Product Name	Mometasone Furoate	
Dosage Form/Strengths	Spray, metered, 50 mcg/spray (0.05%)	
Route of Administration	Nasal	
Indication	Temporary relief of symptoms associated with hay fever or other respiratory allergies, including: nasal congestion, runny nose, sneezing, and itchy nose.	
Submission Date(s)	05/17/2021	
Type of Submission	505(b)(1)	
Assignment Date	06/03/2021	
Review Date	06/28/2021	
Due Dates	**Review**	**PDUFA**
		03/17/2022
Primary Reviewer	Rebecca Moody, Ph.D.	
Secondary Reviewer	Min Li, Ph.D.	
Biopharmaceutics Branch Chief	Kimberly Raines, Ph.D.	
Biopharmaceutics Division Director	Paul Seo, Ph.D.	
Key Review Point	**Biopharmaceutics Assessment is not needed for this NDA (See details below)**	

This 505(b)(1) application seeks approval for a partial Rx to Over-the-Counter (OTC) switch of Mometasone Furoate Nasal Spray, NDA 020762 (NASONEX®). Perrigo R&D Company, the Applicant, acquired right of reference to NDA 020762 and the rights to partially switch NDA 020762 from Rx to OTC status for the temporary treatment of allergy symptoms, including nasal congestion, runny nose, sneezing, and itchy nose.

The Applicant submitted a biowaiver request under 21 CFR 320.22(d)(2); however, the formulation, manufacturing process, and container (i.e., spray bottles, pumps, actuators) remain the same as the Rx drug product approved under NDA 020762[1]. Therefore, bioequivalence between this proposed product and the approved Rx is self-evident.

Still, the Applicant provided in vitro data (e.g., pH, spray pattern, droplet size distribution, particle size, etc.) to support the biowaiver request[2]. All exhibit batches met the same acceptance criteria, at release and on stability, as the currently approved Rx[3]. Notably, the Applicant has implemented the Rx specifications and acceptance criteria for its' OTC drug product.

[1] NDA 215712-ORIG-1 Request for Waiver of in vivo Bioavailability or Bioequivalence Studies Requirement.
[2] NDA 215712-ORIG-1 Exhibit Batches Product Release (Page 8 of 32) and Stability.
[3] NDA 215712-ORIG-1 Comparison of Rx Nasonex and Proposed OTC Release and Stability Specifications.

It is stated that the only difference between the OTC and Rx drug product is the (b) (4) (b) (4) However, these changes do not pose an issue from the biopharmaceutics perspective (b) (4) (b) (4). The final drug product also meets all specifications.

The drug product is available in fill volumes of 7.5 mL, 10 mL, and 17 mL corresponding to 30, 60, or 120 sprays, respectively. The exhibit batches of the drug product were manufactured at Perrigo New York (PNY), which is the intended manufacturing site for the commercial batches. The exhibit batch size ((b) (4) kg) is also the same as the commercial batch size[4]. Therefore, no bridging is necessary.

Based on the fact that bioequivalence is self-evident and that bridging of formulations is not necessary, there are no biopharmaceutics information that need to be assessed by the Division of Biopharmaceutics, ONDP for this NDA.

[4] NDA 215712-ORIG-1 Exhibit vs Commercial Batch. Page 27 of 32.

Min Li

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Rebecca Moody

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This is a representation of an electronic record that was signed electronically. Following this are manifestations of any and all electronic signatures for this electronic record.

/s/

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