November 11, 2021

Jiangsu Jinlian Medical Technology Co., Ltd
% Ray Wang
General Manager
Beijin Believe-Med Technology Service Co., Ltd
Rm.912, Building#15, XiYueHui, No.5, YiHe North Rd.
FangShan District
Beigin, Beijing 102401
China

Re: K212497
Trade/Device Name: Nitrile Examination Glove (Powder free, Blue)
Regulation Number: 21 CFR 880.6250
Regulation Name: Non-Powdered Patient Examination Glove
Regulatory Class: Class I, reserved
Product Code: LZA
Dated: August 5, 2021
Received: August 9, 2021

Dear Ray Wang:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801 and Part 809); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance) and CDRH Learn (https://www.fda.gov/training-and-continuing-education/cdrh-learn). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

Clarence W. Murray, III, PhD
Assistant Director
DHT4B: Division of Infection Control
and Plastic Surgery Devices
OHT4: Office of Surgical
and Infection Control Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

Indications for Use

Form Approved: OMB No. 0910-0120
Expiration Date: 06/30/2023
See PRA Statement below.

510(k) Number *(if known)*

K212497

Device Name

Nitrile Examination Glove (Powder free, Blue)

Indications for Use *(Describe)*

The Nitrile Examination Glove (Powder free, Blue) is a disposable device intended for medical purposes that is worn on the examiner's hands to prevent contamination between patient and examiner.

Type of Use *(Select one or both, as applicable)*

☐ Prescription Use (Part 21 CFR 801 Subpart D) ☒ Over-The-Counter Use (21 CFR 801 Subpart C)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

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510(k) Summary K212497

This 510(k) Summary of 510(k) is being submitted in accordance with 21 CFR 807.92.

The assigned 510(k) Number: K212497

1. Date of Preparation: 08/05/2021

2. Sponsor

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3. Submission Correspondent

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4. Proposed Device Identification

Trade Name: Nitrile Examination Glove (Powder free, Blue)
Common Name: NITRILE Patient Examination Gloves (Powder Free)
Regulatory Information:
Classification: I
Product Code: LZA
Regulation Number: 21 CFR 880.6250
Review Panel: General Hospital

Indication For Use Statement:
The Nitrile Examination Glove (Powder free, Blue) is a disposable device intended for medical purposes that is worn on the examiner's hands to prevent contamination between patient and examiner.

5. Predicate Device Identification

510(k) Number: K150340
Product Name: POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue)
Manufacturer: HEBEI HONGSEN PLASTICS TECHNOLOGY CO., LTD

6. Device Description

The proposed device, Nitrile Examination Glove (Powder free, Blue) are disposable devices intended for medical purposes that is worn on the examiner's hands to prevent contamination between patient and examiner.

The proposed devices are Powder Free Nitrile Examination Gloves and includes variations of different size. The color of the proposed device is Blue.

The proposed device is not provided as sterilized
The proposed device is made of Nitrile.

Table 1 Device Size Specifications

Size Model	Cuff Thickness (mm)	Palm Thickness (mm)	Finger Thickness (mm)	Width (mm)	Length (mm)	Color
S	≥ 0.05	≥ 0.05	≥ 0.05	80±10	≥ 230	Blue
M	≥ 0.05	≥ 0.05	≥ 0.05	95±10		
L	≥ 0.05	≥ 0.05	≥ 0.05	110±10		
XL	≥ 0.05	≥ 0.05	≥ 0.05	120±10		

Table 2 Performance and Physical Specifications

Before Aging		After Aging		Pinhole AQL
Tensile Strength	Ultimate Elongation	Tensile Strength	Ultimate Elongation	1.5
14 MPa, min	500 % min	14 MPa, min	400 % min	

The above data of size, performance, and physical specifications of proposed gloves meet all the current specifications listed in the ASTM standard D6319.

7. Technological Characteristics Comparison Table

Table 1 General Comparison

ITEM	Proposed Device Nitrile Examination Glove (Powder free, Blue)	Predicate Device (K150340) POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue)	Comparison
Product Code	LZA	LZA	SAME
Regulation No.	21 CFR 880.6250	21 CFR 880.6250	SAME
Class	I	I	SAME
Intended Use	The Nitrile Examination Glove (Powder free, Blue) is a disposable device intended for medical purposes that is worn on the examiner's hands to prevent contamination between patient and examiner.	The POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue) is a disposable device intended for medical purposes that is worn on the examiner's hands to prevent contamination between patient and examiner.	SAME
Powdered or Powered free	Powdered free	Powdered free	SAME

Table 2 Device Dimensions Comparison

Proposed Device Nitrile Examination Glove (Powder free, Purple-Blue, Blue)	Designation	Size				Tolerance
		S	M	L	XL	
	Length, mm	230	230	230	230	min
	Width, mm	80	95	110	120	±10
	Thickness, mm:					
	Finger	0.05				min
	Palm	0.05				min
	Cuff	0.05				min
Predicate Device (K150340) POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue)	Designation	Size				Tolerance
		XS	S	M	L	XL
	Length, mm	230	230	230	230	230	min
	Width, mm	70	80	95	110	120	±10
	Thickness, mm:						
	Finger	0.10-0.12					±0.03
	Palm	0.08-0.10					±0.03
	Cuff	0.06-0.09					±0.03
Remark	Analysis 1						

Analysis 1:

The proposed device has different size specification to the predicate device, but all proposed devices are meet the specifications of ASTM D 6319.

So we consider this as the proposed device is same with the predicate device.

Table 3 Performance Comparison

ITEM			Proposed Device Nitrile Examination Glove (Powder free, Blue)	Predicate Device (K150340) POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue)	Comparison
Colorant			Blue	White, Cobalt Blue, Black, Ice Blue	Analysis 2
Physical Properties	Before Aging	Tensile Strength	14 MPa, min	15 MPa, min	Analysis 3
		Ultimate Elongation	500 % min	500 % min	SAME
	After Aging	Tensile Strength	14 MPa, min	14 MPa, min	SAME
		Ultimate	400 % min	400 % min	SAME

		Elongation			
	Comply with ASTM D6319			Comply with ASTM D6319	SAME
Freedom from Holes			Be free from holes when tested in accordance with ASTM D5151	Be free from holes when tested in accordance with ASTM D5151	SAME
Powder Content			Less than 2 mg per glove when tested in accordance with ASTM D6124	Meet the requirements of ASTM 6319	SAME

Analysis 2:
The proposed device has different color to the predicate device

Analysis 3:
The proposed device has different Tensile Strength before aging specification to the predicate device

Table 4 Safety Comparison

ITEM		Proposed Device Nitrile Examination Glove (Powder free, Blue)	Predicate Device (K150340) POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue)	Comparison
Material		Nitrile	Nitrile	SAME
Biocompatibility	Irritation	Under the conditions of the study, not an irritant	Under the conditions of the study, not an irritant	SAME
	Sensitization	Under conditions of the study, not a sensitizer.	Under conditions of the study, not a sensitizer.	
	Systemic toxicity	Under conditions of the study, not a systemic toxicity.	Under conditions of the study, not a systemic toxicity.	
Label and Labeling		Meet FDA's Requirements	Meet FDA's Requirements	SAME

8. Summary of Non-Clinical Tests

Bench tests were conducted to verify that the proposed device met all design specifications found in the standards and test methods described below. The test results demonstrated that the proposed device complies with the following standards:

ASTM D6319-19, Standard Specification for Nitrile Examination Gloves for Medical Application.

ASTM D5151-19, Standard Test Method for Detection of Holes in Medical Gloves.
ASTM D6124-17, Standard Test Method for Residual Powder on Medical Gloves.
ISO 10993-10:2010, Biological evaluation of medical devices - Part 10: Tests for irritation and skin sensitization.
ISO 10993-11:2017, Biological evaluation of medical devices - Part 11: Tests for systemic toxicity

Table 5 Performance Test Results Summary

Test Method	Purpose	Acceptance Criteria	Results
ASTM D5151	Testing for Freedom from holes	Freedom from holes	No water leakage is inspected form 125 samples
ASTM D6124	Determine the powder residue for powder free gloves	<2.0 mg per glove	Residual Powder: Average 0. 1 Mg;
ASTM D412 ASTM D573	Testing for Physical property characteristics	Tensile Strength: 14 MPa min. Ultimate Elongation: 400% min.	Tensile Strength: ≥ 14 MPa; Ultimate Elongation: ≥ 400%.
ASTM D3767	Testing For physical dimensions specification	Length: 230 mm min. for all size (S, M, L, XL); 80±10 mm for S; 95±10 mm for M; 110±10 mm for L; 120±10 mm for XL. Finger Thickness: ≥0.05 mm; Palm Thickness: ≥0.05 mm; All acceptance criteria above meet the requirements in Table 2 Dimensions and Tolerances of ASTM D6319	Length of Size S: ≥ 254 mm; Width of Size S: 88±1 (87-89) mm; Palm Thickness of Size XL: ≥0.07 mm; Finger Thickness of Size XL: ≥0.12 mm. Length of Size M: ≥ 251 mm; Width of Size M: 96±2 (95-98) mm; Palm Thickness of Size XL: ≥0.07 mm; Finger Thickness of Size XL: ≥0.12 mm.. Length of Size L: ≥ 255 mm; Width of Size L: 110±1 (109-111) mm; Palm Thickness of Size XL: ≥0.07 mm; Finger Thickness of Size XL: ≥0.12 mm. Length of Size XL: ≥ 244mm; Width of Size XL: 113±2 (111-115) mm; Palm Thickness of Size XL: ≥0.07 mm; Finger Thickness of Size XL: ≥0.12 mm.
ISO 10993-11	Evaluate the endpoint of systemic toxicity for biocompatibility	The test article showed “negative” systemic toxicity	Under the conditions of the study, the test article showed “negative” systemic toxicity.
ISO 10993-10	Evaluate the endpoint of irritant for biocompatibility	The response of the test article has no skin irritation	Under the experimental conditions, the test article has no skin irritation on rabbits.
	Evaluate the endpoint of	The test article showed no evidence of	The test article showed no evidence of causing
	sensitization for biocompatibility	causing delayed dermal contact sensitization.	delayed dermal contact sensitization in the guinea pig.

9. Summary of Clinical Test

No clinical study is included in this submission.

10. Conclusion

Based on the nonclinical tests performed, the subject device is as safe, as effective, and performs as well as the legally marketed predicate device, POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue) cleared under K150340.