



March 1, 2021

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

Re: K202402

Trade/Device Name: Nitrile Examination Gloves (Blue, Violet Blue, White)
Regulation Number: 21 CFR 880.6250
Regulation Name: Non-Powdered Patient Examination Glove
Regulatory Class: Class I, reserved
Product Code: LZA
Dated: January 28, 2021
Received: February 1, 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); 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,

Ryan Ortega, PhD
Acting Assistant Director
CDHT4B: 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

Indications for Use

510(k) Number (if known)

K202402

Device Name

NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White)

Indications for Use (Describe)

The NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White) 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

This 510(k) Summary of 510(k) safety and effectiveness information is being submitted in accordance with requirements of SMDA 1990 and 21 CFR 807.92.

The assigned 510(k) Number: K202402

1. Date of Preparation: 08/19/2020
2. Sponsor

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4. Proposed Device Identification

Trade Name: NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White)

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 GLOVES (Blue, Violet Blue, White) 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 GLOVES (Blue, Violet Blue, White) 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 NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White) includes variations of different size and color. The colors of the proposed device are Blue, Violet Blue, and White.

Table 1 Device Size Specifications

Designation	SIZE					Tolerance
	XS	S	M	L	XL	
Length (mm)	230	230	230	235	235	Min.
Width (mm)	70	80	95	110	120	±10 (mm)
Thickness (mm)						
Finger	0.05					Min.
Palm	0.05					Min.
Cuff	0.05					Min.

Table 2 Performance and Physical Specifications

Before Aging		After Aging		Pinhole AQL
Tensile Strength	Ultimate Elongation	Tensile Strength	Ultimate Elongation	
15 MPa, min	500 % min	14 MPa, min	500 % 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. Non-Clinical Test Conclusion

Bench tests were conducted to verify that the proposed device met all design specifications as was similar to the predicate device. The test results demonstrated that the proposed device complies with the following standards:

ASTM D6319-15, Standard Specification for Nitrile Examination Gloves for Medical Application.

ASTM D5151-06, 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 10993-5:2009, Biological evaluation of medical devices - Part 5: Tests for in vitro cytotoxicity.

8. Technology Comparison Table

Table 3 General Comparison

ITEM	Proposed Device (K202402) NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White)	Predicate Device (K150340) POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue)	Remark
Product Code	LZA	LZA	SAME
Regulation No.	21 CFR 880.6250	21 CFR 880.6250	SAME
Class	I	I	SAME
Intended Use	The Powder free Nitrile Examination Gloves NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White) 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
Powered free	Powdered free	Powdered free	SAME

Table 4 Device Dimensions Comparison

Proposed Device NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White)	Designation	Size					Tolerance
		XS	S	M	L	XL	
	Length, mm	230	230	230	235	235	min
	Width, mm	70	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

Table 5 Performance Comparison

ITEM		Proposed Device NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White)	Predicate Device (K150340) POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue)	Remark	
Colorant		Blue, Violet Blue, White	White, Cobalt Blue, Black, Ice Blue	Similar	
Physical Properties	Before Aging	Tensile Strength	15 MPa, min	15 MPa, min	SAME
		Ultimate Elongation	500 % min	500 % min	SAME
	After Aging	Tensile Strength	14 MPa, min	14 MPa, min	SAME
		Ultimate	500 % min	400 % min	Similar

	Elongation		
	Comply with ASTM D6319		Comply with ASTM D6319
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
Powder Content	Less than 2 mg per glove when tested in accordance with ASTM D6124		Meet the requirements of ASTM 6319
			SAME
			SAME
			SAME

The proposed device has different color to the predicate device, this different may causes potential biocompatibility risk, for this risk we conducted the biocompatibility test according to the ISO 10993-10 and ISO 10993-5, the test results showed that the proposed devices with blue colorant did not induce skin irritation and showed no significant evidence of causing skin sensitization.

The proposed device has different Tensile Strength before aging specification to the predicate device, but all proposed device meets the specification requirements of ASTM D 6319.

Table 6 Safety Comparison

ITEM		Proposed Device(K202402) NITRILE EXAMINATION GLOVES (Blue, Violet Blue, White)	Predicate Device (K150340) POWDER FREE Nitrile GLOVES (White, Cobalt Blue, Black, Ice Blue)	Remark
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.	
	Acute Systemic Toxicity	Under conditions of the study, not toxic	Not Available	

9. Conclusion

The conclusions drawn from the nonclinical tests demonstrate that the subject device is as safe, as effective, and performs as well as or better than the legally marketed predicate device.