



December 13, 2021

Shanxi Nacosa Medical Technology Co.,Ltd
% Boyle Wang
Official Correspondent
Shanghai Truthful information Technology Co., Ltd.
RM. 1801, No. 161 Lujiazui East Rd.,Pudong
Shanghai, Shanghai 200120
China

Re: K212924

Trade/Device Name: Nitrile Examination Gloves
Regulation Number: 21 CFR 880.6250
Regulation Name: Non-Powdered Patient Examination Glove
Regulatory Class: Class I, reserved
Product Code: LZA
Dated: September 7, 2021
Received: September 14, 2021

Dear Boyle 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,

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

Indications for Use

510(k) Number (if known)
K212924

Device Name
Nitrile Examination Gloves

Indications for Use (Describe)

The nitrile examination gloves are intended to be worn on the hands of examiners to prevent contamination between patient and examiner. This is a single-use, powder-free, non-sterile device.

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.

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510(k) Summary

K212924

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

1.0 Submitter's Information

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Contact: Lu Yingying

Date of Preparation: Sept 7, 2021

Designated Submission Correspondent

Mr. Boyle Wang

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2.0 Device Information

Trade name: Nitrile Examination Gloves

Common name: Patient Examination Gloves

Classification name: Non-powdered patient examination glove

Model(s): S, M, L, XL

3.0 Classification

Production code: LZA

Regulation number: 21CFR880.6250

Classification: Class I

Panel: General Hospital

4.0 Predicate Device Information

Manufacturer: GUANG DONG KINGFA SCI. & TECH.CO., LTD.

Device: Nitrile examination gloves

510(k) number: K203593

5.0 Indication for Use

The disposable medical nitrile examination gloves are intended to be worn on the hands of examiners to prevent contamination between patient and examiner. This is a single-use, powder-free, non-sterile device.

6.0 Device Description

The subject device is powder free nitrile examination gloves. The subject device is blue. It can be available in four specifications: S,M,L and XL.

The subject device is non-sterile.

7.0 Technological Characteristic Comparison Table

Table1-General Comparison

Item	Subject Device (K212924)	Predicated Device (K203593)	Comparison
Product Code	LZA	LZA	Same
Regulation No.	21CFR880.6250	21CFR880.6250	Same
Class	I	I	Same
Intended Use	The nitrile examination glove is intended to be worn on the hands of examiners to prevent contamination between patient and examiner. This is a single-use, powder-free, non-sterile device.	The nitrile examination glove is intended to be worn on the hands of examiners to prevent contamination between patient and examiner. This is a single-use, powder-free, non-sterile device.	Same
Material	Nitrile	Nitrile	Same
Powdered or Powdered free	Powdered free	Powdered free	Same
Design Feature	Ambidextrous	Ambidextrous	Same
Colorant	Blue	Blue	Same
Labeling Information	Single-use indication, powder free, device color, device name, glove size and quantity, Non-Sterile	Single-use indication, powder free, device color, device name, glove size and quantity, Non-Sterile	Same
Dimensions(mm)	Length(mm): >230; Width(mm): S: Average 84mm M: Average 95mm	Length: S (220mm min) M (230mm min) L (230mm min) XL (230mm min)	Similar

		L: Average 111mm XL: Average 115mm Meet the requirements of ASTM D6319-19		Width: Small (80±10mm) Medium (95±10mm) Large (110±10mm) X large (120±10mm) meet the requirements of ASTM D6319-19		
Thickness(mm)		Finger: 0.12-0.15 Palm: 0.08-0.10		Palm: 0.05mm min Finger: 0.05mm min	Similar	
Physical Properties	Before Aging	Tensile Strength	17-38MPa	Tensile Strength	14MPa, min	Similar
		Ultimate Elongation	501-565%	Ultimate Elongation	500% min	Similar
	After Aging	Tensile Strength	18-43MPa	Tensile Strength	14MPa, min	Similar
		Ultimate Elongation	500-564%	Ultimate Elongation	400%min	Similar
Freedom from Holes		Be free from holes when tested in accordance with ASTM D5151 AQL=2.5		Be free from holes when tested in accordance with ASTM D5151 AQL=2.5	Same	
Powder Content		0.1-0.3mg Meet the requirements of ASTM D6124 <2.0 mg/gloves		Meet the requirements of ASTM D6124 <2.0 mg/gloves	Similar	
Biocompatibility		ISO 10993-10; Under the conditions of the study, not an irritant or a sensitizer		ISO 10993-10; Under the test condition of study not a sensitizer. Under the test condition of study not an irritant.	Same	
		ISO 10993-11; Under the condition of acute systemic toxicity test, the test article did not show acute systemic toxicity in vivo.		Cytotoxicity is assessed via rationale. Under the condition of acute systemic toxicity test, the test article did not show acute systemic toxicity in vivo.	Same	
		ISO 10993-5 Under conditions of the study, device extract is cytotoxic		N.A.	/	

Analysis:

The physical dimensions, physical properties and powder content are different with that of the predicate, but they all meet the requirements of ASTM D6319-19.

8.0 Summary of Non-clinical Testing

Non-clinical tests were conducted to verify that the proposed device met all design specifications. The test results demonstrated that the proposed device complies with the following standards:

ISO 10993-5 Third edition 2009-06-01, Biological evaluation of medical devices - Part 5: Tests for in vitro cytotoxicity

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.

ASTM D6124-06 (Reapproved 2017), Standard Test Method for Residual Powder on Medical Gloves

ASTM D5151-19, Standard Test Method for Detection of Holes in Medical Gloves.

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

Table 2 - Summary of non-clinical performance testing

Test Method	Purpose	Acceptance Criteria	Results
ASTM D6319	Physical Dimensions Test	Length(mm): S:≥220; M/L/XL:≥230; Width(mm): S: 80±10; M: 95±10; L: 110±10; XL: 120±10	Length(mm): > 230/Pass; Width(mm): S: 83-85 /Pass M: 94-96/ Pass L: 110-112/ Pass XL:113-117/ Pass
		Thickness (mm): Finger: ≥0.05 Palm: ≥0.05	Thickness (mm): Finger: 0.12-0.15/Pass Palm: 0.08-0.10/Pass
ASTM D5151	Watertightness Test for	Meet the requirements of ASTM D5151 AQL 2.5	0/200/Pass

	Detection of Holes				
ASTM D6124	Powder Content	Meet the requirements of ASTM D6124 < 2.0mg		0.1-0.3mg/Pass;	
ASTM D412	Physical properties	Before Aging	Tensile Strength	≥14MPa	17-38MPa/Pass;
			Ultimate Elongation	≥500%	501-565%/Pass;
		After Aging	Tensile Strength	≥14MPa	18-43MPa/Pass;
			Ultimate Elongation	≥400%	500-564%/Pass;
ISO 10993-5	Cytotoxicity	toxicity		Under conditions of the study, device extract is cytotoxic.	
ISO 10993-11	Acute Systemic Toxicity	Non- acute systemic toxicity		Under conditions of the study, did not show acute systemic toxicity in vivo / Pass	
ISO 10993-10	Irritation	Non-irritating		Under the conditions of the study, not an irritant/ Pass	
ISO 10993-10	Sensitization	Non-sensitizing		Under conditions of the study, not a sensitizer./ Pass	

9.0 Summary of Clinical Testing

Clinical testing is not needed for this device.

10.0 Conclusion

The conclusions drawn from the nonclinical tests demonstrate that the subject device Nitrile Examination Gloves is as safe, as effective, and performs as well as or better than the legally marketed predicated device K203593.