

October 4, 2023

Better Care Plastic Technology Co., Ltd. % Kathy Liu Project Manager Hongray(USA) Medical Products Inc. 3973 Schaefer Avenue Chino, California 91710

Re: K231567

Trade/Device Name: Biodegradable Nitrile Powder Free Examination Gloves Tested for Use with

Chemotherapy Drugs, Fentanyl Citrate and select other drugs (Blue)

Regulation Number: 21 CFR 880.6250

Regulation Name: Non-Powdered Patient Examination Glove

Regulatory Class: Class I, reserved Product Code: LZA, LZC, OPJ, QDO

Dated: September 5, 2023 Received: September 5, 2023

Dear Kathy Liu:

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 (the 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 available 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 <u>Federal Register</u>.

K231567 – Kathy Liu Page 2

Additional information about changes that may require a new premarket notification are provided in the FDA guidance documents entitled "Deciding When to Submit a 510(k) for a Change to an Existing Device" (https://www.fda.gov/media/99812/download) and "Deciding When to Submit a 510(k) for a Software Change to an Existing Device" (https://www.fda.gov/media/99785/download).

Your device is also subject to, among other requirements, the Quality System (QS) regulation (21 CFR Part 820), which includes, but is not limited to, 21 CFR 820.30, Design controls; 21 CFR 820.90, Nonconforming product; and 21 CFR 820.100, Corrective and preventive action. Please note that regardless of whether a change requires premarket review, the QS regulation requires device manufacturers to review and approve changes to device design and production (21 CFR 820.30 and 21 CFR 820.70) and document changes and approvals in the device master record (21 CFR 820.181).

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 Part 803) for devices or postmarketing safety reporting (21 CFR Part 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 Part 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR Parts 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 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-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/training-and-continuing-education/cdrh-learn) 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">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,



For Bifeng Qian, M.D., Ph.D. Assistant Director

DHT4B: Division of Infection Control and Plastic and Reconstructive 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: 07/31/2026 See PRA Statement below.

510(k) Number (if known)

K231567

Device Name

Biodegradable Nitrile Powder Free Examination Gloves Tested for Use with Chemotherapy Drugs, Fentanyl Citrate and select other drugs (Blue)

Indications for Use (Describe)

The glove is a disposable device intended for medical purposes that is worn on the examiner's hand or finger to prevent contamination between patient and examiner. In addition, these gloves were tested for use with Chemotherapy drugs, Fentanyl Citrate and select other drugs in accordance with ASTM D6978.

Chemotherapy Drugs	Minimum Breakthrough Detection Time (BDT) in Minutes
Azacytidine (Vidaza) 25 mg/ml (25000ppm)	>240
Bleomycin Sulfate 15mg/ml (15000 ppm)	>240
Busulfan 6mg/ml (6,000 ppm)	>240
Carboplatin 10mg/ml (10,000 ppm)	>240
Carmustine (BCNU)3.3 mg/ml (3,300 ppm)	11.8
Cisplatin 1mg/ml (1,000 ppm)	>240
Cyclophosphamide 20mg/ml (20,000 ppm)	>240
Cytarabine HCL, 100 mg/ml (100,000 ppm)	>240
Dacarbazine 10 mg/ml (10,000 ppm)	>240
Daunorubicin HCL, 5 mg/ml (5,000 ppm)	>240
Docetaxel, 10 mg/ml (10,000 ppm)	>240
Doxorubicin HCL, 2 mg/ml (2,000 ppm)	>240
Etoposide, 20 mg/ml (20,000 ppm)	>240
Epirubicin HCL, 2 mg/ml (2,000 ppm)	>240
Fludarabine, 25 mg/ml (25,000 ppm)	>240
Fluorouracil, 50mg/ml (50,000ppm)	>240
Gemcitabine, 38mg/ml (38,000ppm)	>240
Idarubicin HCL, 1mg/ml (1,000ppm)	>240
Ifosfamide, 50mg/ml (50,000ppm)	>240
Irinotecan, 20mg/ml (20,000ppm)	>240
Mechlorethamine HCI, 1mg/ml (1,000ppm)	>240
Melphalan, 5mg/ml (5,000ppm)	>240
Methotrexate, 25mg/ml (25,000ppm)	>240
Mitomycin C, 0.5mg/ml (500ppm)	>240
Mitoxantrone HCL, 2mg/ml (2,000ppm)	>240
Oxaliplatin, 5mg/ml (5,000ppm)	>240
Paclitaxel, 6mg/ml (6,000ppm)	>240
Paraplatin, 10mg/ml (10,000ppm)	>240
Rituximab, 10mg/ml (10,000ppm)	>240
Thio Tepa, 10mg/ml (10,000ppm)	33.5
Topotecan, 1mg/ml (1,000ppm)	>240
Trisenox, 1mg/ml (1,000ppm)	>240
Velcade (Bortezomib), 1mg/ml (1,000ppm)	>240
Vincristine Sulfate (Oncovin), 1mg/ml (1,000pp	m) >240
Vinorelbine, 10 mg/ml (10000ppm)	>240

Fentanyl citrate & other drugs

Minimum Breakthrough Detection Time (BDT) in Minutes

Fentanyl Citrate Injection (100mcg/2mL)

>240

Chloroquine 50mg/ml (50,000ppm)	>240			
Cyclosporin A 100 mg/ml (100,000 ppm)	>240			
Retrovir, 10mg/ml (10,000ppm)	>240			
*Please note that the following drugs have extremely low permeation times:				
Carmustine: 11.8 minutes, Thio Tepa: 33.5 minutes				
Warning: Do not use with Carmustine and Thio Tepa.				
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.

DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.

The burden time for this collection of information is estimated to average 79 hours per response, including the time to review instructions, search existing data sources, gather and maintain the data needed and complete and review the collection of information. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden, to:

Department of Health and Human Services Food and Drug Administration Office of Chief Information Officer Paperwork Reduction Act (PRA) Staff PRAStaff@fda.hhs.gov

"An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB number."

The assigned 510(K) numbers: K231567

Date Prepared: October 4, 2023

1. Owner's Identification:

Mrs. Zhu Chunyan

Better Care Plastic Technology Co., Ltd.

Fuqian Xi Road, West district of Shenze, Industrial Base, Shenze County, Hebei, 050000, China

Tel:86-311-66179668

Contact: Ms. Kathy Liu, Project Manager

Address: 3973 Schaefer Avenue, Chino, CA 91710, USA Tel:909-590-1611

Email: janicema@hongrayusa.com or fdareg@hongray.com.cn

2. Name of the Device:

Trade / Product Name: Biodegradable Nitrile Powder Free Examination Gloves Tested for Use with

Chemotherapy Drugs, Fentanyl Citrate and select other drugs (Blue)

Common Name: Exam Gloves

Classification Name: Patient Examination Glove Specialty

Classification Regulation: 21 CFR 880.6250 Product Code: LZA, LZC, OPJ, QDO Classification Panel: General Hospital

Device Class: Class I

3. Predicate and Reference Device Information:

Primary Predicate Device

Hartalega NGC SDN. BHD.

Biodegradable Nitrile Powder Free Examination Gloves Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) (K200581)

Reference device:

Better Care Plastic Technology Co., Ltd.

Powder Free Nitrile Examination Gloves (Blue) Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (K221269)

4. Device Description:

Biodegradable Nitrile Powder Free Examination Gloves Tested for Use with Chemotherapy Drugs, Fentanyl Citrate and select other drugs (Blue) are Class I Patient Examination Gloves and Specialty Chemotherapy Gloves. They are ambidextrous and come in different sizes - Extra Small, Small, Medium, Large, Extra Large and XXL. Gloves meet the specification of ASTM D6319-19 and have been tested for resistance to permeation by chemotherapy drugs, Fentanyl Citrate and select other drugs as per ASTM D6978-05(2019). The gloves are single use, disposable, and provided non-sterile.

The glove has biodegradation property within landfills tested per ASTM D5511.

5. <u>Indications for Use:</u>

The glove is a disposable device intended for medical purposes that is worn on the examiner's hand or finger to prevent contamination between patient and examiner. In addition, these gloves were tested for use with Chemotherapy drugs, Fentanyl Citrate, and select other drugs in accordance with ASTM D6978.

The following chemicals have been tested with these gloves:

Chemotherapy Drug	Minimum Breakthrough Detection Time
A (11 (11) 25 (1 (25000)	(BDT) in Minutes
Azacytidine (Vidaza) 25 mg/ml (25000ppm)	>240
Bleomycin Sulfate 15mg/ml (15000 ppm)	>240
Busulfan 6mg/ml (6,000 ppm)	>240
Carboplatin 10mg/ml (10,000 ppm)	>240
Carmustine (BCNU)3.3 mg/ml (3,300 ppm)	11.8
Cisplatin 1mg/ml (1,000 ppm)	>240
Cyclophosphamide 20mg/ml (20,000 ppm)	>240
Cytarabine HCL, 100 mg/ml (100,000 ppm)	>240
Dacarbazine 10 mg/ml (10,000 ppm)	>240
Daunorubicin HCL, 5 mg/ml (5,000 ppm)	>240
Docetaxel, 10 mg/ml (10,000 ppm)	>240
Doxorubicin HCL, 2 mg/ml (2,000 ppm)	>240
Etoposide, 20 mg/ml (20,000 ppm)	>240
Epirubicin HCL, 2 mg/ml (2,000 ppm)	>240
Fludarabine, 25 mg/ml (25,000 ppm)	>240
Fluorouracil, 50mg/ml (50,000ppm)	>240
Gemcitabine, 38mg/ml (38,000ppm)	>240
Idarubicin HCL, 1mg/ml (1,000ppm)	>240
Ifosfamide, 50mg/ml (50,000ppm)	>240
Irinotecan, 20mg/ml (20,000ppm)	>240
Mechlorethamine HCI, 1mg/ml (1,000ppm)	>240
Melphalan, 5mg/ml (5,000ppm)	>240
Methotrexate, 25mg/ml (25,000ppm)	>240
Mitomycin C, 0.5mg/ml (500ppm)	>240
Mitoxantrone HCL, 2mg/ml (2,000ppm)	>240
Oxaliplatin, 5mg/ml (5,000ppm)	>240
Paclitaxel, 6mg/ml (6,000ppm)	>240
Paraplatin, 10mg/ml (10,000ppm)	>240
Rituximab, 10mg/ml (10,000ppm)	>240
Thio Tepa, 10mg/ml (10,000ppm)	33.5
Topotecan, 1mg/ml (1,000ppm)	>240
Trisenox, 1mg/ml (1,000ppm)	>240
Velcade (Bortezomib), 1mg/ml (1,000ppm)	>240
Vincristine Sulfate (Oncovin), 1mg/ml (1,000ppm)	>240
Vinorelbine, 10 mg/ml (10000ppm)	>240

Fentanyl citrate & other drugs	Minimum Breakthrough Detection Time
	(BDT) in Minutes
Fentanyl Citrate Injection (100 mcg/2ml)	>240
Chloroquine 50mg/ml (50,000ppm)	>240
Cyclosporin A 100 mg/ml (100,000 ppm)	>240
Retrovir, 10mg/ml (10,000ppm)	>240

*Please note that the following drugs have extremely low permeation times:

Carmustine: 11.8 minutes, Thio Tepa: 33.5 minutes Warning: Do not use with Carmustine and Thio Tepa.

6. Comparison of Subject Device and Predicate Device:

The following tables are summaries of the technological characteristics, biocompatibility and testing for use with chemotherapy drugs, Fentanyl Citrate, and select other drugs of the proposed and predicate devices. General Comparison Table:

	Subject Device	Predicate Device	Comparison
	K231567	K200581	
Trade Name	Biodegradable Nitrile Powder Free Examination Gloves Tested for Use with Chemotherapy Drugs, Fentanyl Citrate, and select other drugs (Blue)	Biodegradable Nitrile Powder Free Examination Gloves Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue)	Same
Product Code	LZA, LZC, OPJ, QDO	LZA, LZC,QDO	Same
Regulation Number	21 CFR 880.6250	21 CFR 880.6250	Same
Class	I	I	Same
Indications for Use	The glove is a disposable device intended for medical purposes that is worn on the examiner's hand or finger to prevent contamination between patient and examiner. In addition these gloves were tested for use with Chemotherapy drugs, Fentanyl Citrate, and select other drugs in accordance with ASTM D6978.	Biodegradable Nitrile Powder Free Examination Gloves Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) is a non-sterile disposable device intended for medical purpose that is worn on the examiner's hand to prevent contamination between examiner and patient. It is also tested to be used against chemotherapy drugs and Fentanyl Citrate	Different*
Material	Nitrile	Nitrile	Same
Powder or Powder Free	Powder Free	Powder Free	Same
Color	Blue	Blue	Same
Single use	Single use	Single use	Same
Sterile	Non-Sterile	Non-Sterile	Same
Chemotherapy Drugs, Fentanyl Citrate and other drugs Claim	See below comparison table	See below comparison table	/
ATEL 1: 00		1 11 1: 6 1 1:00 1	

^{*}This different is support with test report and will be indicated on labeling. So the differences do not impact the safety, effectiveness, and substantial equivalence of the subject device compared to the predicate.

Technological Characteristic Comparison Table:

Technological Characteristics	Subject Device K231567	Predicate Device K200581	Comparison
Length	Meets ASTM D6319 Minimum 220mm for size XS and S; 230mm for Size M, L, XL, XXL	Meets ASTM D6319 Minimum 220mm for size XS and S; 230mm for Size M, L, XL, XXL	Same
Palm Width (size) (mm)	Meets ASTM D6319	Meets ASTM D6319	
XS	70±10	70±10	Same
S	80±10	80±10	Same
M	95±10	95±10	Same
L	110±10	110±10	Same
XL	120±10	120±10	Same
XXL	130±10	130±10	Same
Thickness(mm)	100-10	10 0-10	
Finger	Meets ASTM D6319	Meets ASTM D6319	Same
	Minimum 0.05	Minimum 0.05	
Palm	Minimum 0.05	Minimum 0.05	Same
Tensile Strength, Before Aging	Meets ASTM D6319	Meets ASTM D6319	Same
	14MPa, min	14MPa, min	
Ultimate Elongation,	Meets ASTM D6319	Meets ASTM D6319	Same
Before Aging	500%, min	500%, min	
Tensile Strength, After	Meets ASTM D6319	Meets ASTM D6319	Same
Accelerated Aging	14MPa, min	14MPa, min	
Ultimate Elongation, After	Meets ASTM D6319	Meets ASTM D6319	Same
Accelerated Aging	400%, min	400%, min	
Watertight (1000ml)	Meets ASTM D6319	Meets ASTM D6319	Same
	21 CFR 800.20	21 CFR 800.20	
	ASTM D5151	ASTM D5151	
Powder-Content	Meets ASTM D6319	Meets ASTM D6319	Same
	≤2 mg per glove	\leq 2 mg per glove	
In vitro Cytotoxicity ISO 10993-5	The test article extract showed potential toxicity to L929 cells.	NA	Different*
130 10993-3	Under the conditions of the		
Dermal Sensitization ISO 10993-10	study, the test article extract showed no significant evidence of causing skin	Under the conditions of the study, the device is not a sensitizer	Same
Acute Systemic Toxicity Test ISO 10993-11	sensitization Under the conditions of this study, the device showed no evidence of acute systemic toxicity	Under the conditions of this study, the device showed no evidence of acute systemic toxicity	Same
Primary Skin Irritation ISO 10993-23	Under the conditions of the study, the device is not an irritant	Under the conditions of the study, the device is not an irritant	Same
Shelf-Life Expiry ASTM D7160-16	3 Years	3Years	Same

	ASTM D5511-18 biodegradable Properties	biodegradable	biodegradable	Different**
--	----------------------------------------	---------------	---------------	-------------

^{*}The Biocompatibility testing was successfully completed for the subject device, demonstrating that the difference does not raise different questions of safety and effectiveness and does not affect the substantial equivalence in effectiveness and safety.

Chemotherapy Permeation Comparison:

Chemotherapy Termeation Comparison.		ım Breakthrough lin Minutes	Detection Time	Comparison
Tested Chemotherapy Drug and Concentration	Subject Device K231567	Primary Predicate Device K200581	Reference Device K221269	
Azacytidine (Vidaza) 25 mg/ml (25000ppm)	>240	>240	/	Same as K200581
Bleomycin Sulfate 15mg/ml (15000 ppm)	>240	/	>240	Same as K221269
Busulfan 6mg/ml (6,000 ppm)	>240	/	>240	Same as K221269
Carboplatin 10mg/ml (10,000 ppm)	>240	>240	>240	Same
Carmustine (BCNU)3.3 mg/ml (3,300 ppm)	11.8	21.4	11.1	Similar
Cisplatin 1mg/ml (1,000 ppm)	>240	>240	>240	Same
Cyclophosphamide 20mg/ml (20,000 ppm)	>240	>240	>240	Same
Cytarabine HCL, 100 mg/ml (100,000 ppm)	>240	/	>240	Same as K221269
Dacarbazine 10 mg/ml (10,000 ppm)	>240	>240	>240	Same
Daunorubicin HCL, 5 mg/ml (5,000 ppm)	>240	/	>240	Same as K221269
Docetaxel, 10 mg/ml (10,000 ppm)	>240	>240	>240	Same
Doxorubicin HCL, 2 mg/ml (2,000 ppm)	>240	>240	>240	Same
Etoposide, 20 mg/ml (20,000 ppm)	>240	>240	>240	Same
Epirubicin HCL, 2 mg/ml (2,000 ppm)	>240	>240	>240	Same
Fludarabine, 25 mg/ml (25,000 ppm)	>240	/	>240	Same as K221269
Fluorouracil, 50mg/ml (50,000ppm)	>240	>240	>240	Same
Gemcitabine, 38mg/ml (38,000ppm)	>240	>240	>240	Same
Idarubicin HCL, 1mg/ml (1,000ppm)	>240	/	>240	Same as K221269
Ifosfamide, 50mg/ml (50,000ppm)	>240	>240	>240	Same
Irinotecan, 20mg/ml (20,000ppm)	>240	>240	>240	Same
Mechlorethamine HCI, 1mg/ml (1,000ppm)	>240	/	>240	Same as K221269
Melphalan, 5mg/ml (5,000ppm)	>240	/	>240	Same as K221269
Methotrexate, 25mg/ml (25,000ppm)	>240	>240	>240	Same
Mitomycin C, 0.5mg/ml (500ppm)	>240	>240	>240	Same
Mitoxantrone HCL, 2mg/ml (2,000ppm)	>240	>240	>240	Same

^{**}Biodegradability of subject device will be indicated on labeling and it is not a medical claim and therefore was not reviewed by FDA.

Oxaliplatin, 5mg/ml (5,000ppm)	>240	>240	>240	Same
Paclitaxel, 6mg/ml (6,000ppm)	>240	>240	>240	Same
Paraplatin, 10mg/ml (10,000ppm)	>240	/	>240	Same as K221269
Rituximab, 10mg/ml (10,000ppm)	>240	/	>240	Same as K221269
Thio Tepa, 10mg/ml (10,000ppm)	33.5	67.2	21.6	Similar
Topotecan, 1mg/ml (1,000ppm)	>240	/	>240	Same as K221269
Trisenox, 1mg/ml (1,000ppm)	>240	/	>240	Same as K221269
Velcade (Bortezomib), 1mg/ml (1,000ppm)	>240	/	>240	Same as K221269
Vincristine Sulfate (Oncovin), 1mg/ml (1,000ppm)	>240	>240	>240	Same
Vinorelbine, 10 mg/ml (10000ppm)	>240	>240	/	Same as K200581

Fentanyl and Select Other Drugs Permeation Comparison

		ım Breakthrougl in Minutes	n Detection Time	
Fentanyl citrate & other drugs	Subject Device K231567	Predicate Device K200581	Reference Device K221269	Comparison
Fentanyl Citrate Injection (100 mcg/2ml)	>240	>240	>240	Same
Chloroquine 50mg/ml (50,000ppm)	>240	/	>240	Same as K221269
Cyclosporin A 100 mg/ml (100,000 ppm)	>240	/	>240	Same as K221269
Retrovir, 10mg/ml (10,000ppm)	>240	/	>240	Same as K221269

Chemotherapy drugs and chemical as well as their minimum breakthrough time of subject device and "Gloves used for protection against chemotherapy drug exposure should be selected specifically for the type of chemicals used" will be listed on labeling, so the differences do not impact the safety, effectiveness, and substantial equivalence of the subject device compared to the predicate.

7. Summary of Non-Clinical Performance Data

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

Methodology	Test Performed	Acceptance Criteria	Results
ASTM D6319- 19	Physical Dimensions Length	Minimum 220mm for size XS and S; 230mm for Size M, L, XL, XXL	Pass
ASTM D6319- 19	Physical Dimensions Palm Width	XS: 70±10mm S: 80±10mm M: 95±10mm L:110±10mm XL: 120±10mm	Pass

		XXL: 130±10mm	
ASTM D6319- 19	Physical Dimensions Thickness	Finger: 0.05mm (min) Palm: 0.05mm (min)	Pass
ASTM D6319- 19 ASTM D412-16(2021)	Physical Properties	Tensile Strength (Min14 Mpa) and Elongation (Before Aging 500% and after aging 400%) Min	Pass
ASTM D6319- 19 ASTM D5151-19	Water leak test	AQL 2.5 (ISO 2859-1)	Pass
ASTM D6319- 19 ASTM D6124-06 (2017)	Powder Residue	Max 2mg/glove	Pass
ASTM D6978-05 (2019)	Permeation by Chemotherapy Drugs, Fentanyl Citrate and select other drugs	Refer the above table 1	Pass
ISO 10993-10 &23:2021	Irritation and Skin Sensitization	Skin sensitization and Skin irritation	Is non-sensitization and Non-irritation
ISO 10993-5:2009	Cytotoxicity	Cytotoxicity reactivity	showed potential toxicity to L929 cells.
ISO 10993-11:2017	Acute systemic toxicity study	Subject showed no adverse biological reaction	no evidence of acute systemic toxicity.

- 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 D6124-06 (Reapproved 2017), Standard Test Method for Residual Powder on Medical Gloves
- ASTM D412-16 (2021) Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension
- ASTM D6978-05 (Reapproved 2019), Assessment of Reissuance of Medical Gloves to Permeation by Chemotherapy Drugs.
- ISO 10993-10:2021 Biological Evaluation of Medical Devices Part 10: Tests For Skin Sensitization.
- ISO 10993-23:2021 Biological Evaluation of Medical Devices Part 23: Tests For Skin Irritation.
- ISO 10993-5:2009 Biological Evaluation of Medical Devices Part 5: Tests For In Vitro Cytotoxicity
- ISO 10993-11:2017 Biological evaluation of medical devices Part 11: Tests for systemic toxicity
- Biodegradability is not a medical claim and therefore was not reviewed by FDA

8. Clinical Performance Data

N/A

9. Conclusion:

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