



July 30, 2025

Hartalega NGC Sdn. Bhd.  
Mahalia Liyana Mat Harun  
Manager - Regulatory Affairs  
No. 1, Persiaran Tanjung, Kawasan Perindustrian Tanjung  
Sepang, Selangor Darul Ehsan 43900  
Malaysia

Re: K251319

Trade/Device Name: Sterile Nitrile Powder Free Examination Glove Tested for Use with  
Chemotherapy Drugs and Fentanyl Citrate (Blue); Sterile Nitrile Powder Free  
Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl  
Citrate (Blue) – Extended Cuff

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: July 3, 2025

Received: July 3, 2025

Dear Mahalia Liyana Mat Harun:

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 Federal Register.

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.

All medical devices, including Class I and unclassified devices and combination product device constituent parts are required to be in compliance with the final Unique Device Identification System rule ("UDI Rule"). The UDI Rule requires, among other things, that a device bear a unique device identifier (UDI) on its label and package (21 CFR 801.20(a)) unless an exception or alternative applies (21 CFR 801.20(b)) and that the dates on the device label be formatted in accordance with 21 CFR 801.18. The UDI Rule (21 CFR 830.300(a) and 830.320(b)) also requires that certain information be submitted to the Global Unique Device Identification Database (GUDID) (21 CFR Part 830 Subpart E). For additional information on these requirements, please see the UDI System webpage at <https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/unique-device-identification-system-udi-system>.

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-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](mailto:DICE@fda.hhs.gov)) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

**ALLAN GUAN -S**

For Bifeng Qian, M.D., Ph.D.  
Assistant Director  
DHT4C: Division of Infection  
Control 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)  
K251319

### Device Name

Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue);  
Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) - Extended Cuff

### Indications for Use (Describe)

Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue); and Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) - Extended Cuff, is a sterile disposable device intended for medical purpose that is worn on the examiner's hand to prevent contamination between patient and examiner.

These gloves were tested for use with chemotherapy drugs and fentanyl citrate as per ASTM D6978 Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs.

Chemotherapy Drug and Concentration	Minimum Breakthrough Detection Time in Minutes
Carmustine (3.3 mg/ml)	38.3
Cisplatin (1.0 mg/ml)	> 240
Cyclophosphamide (20.0 mg/ml)	> 240
Dacarbazine (10.0 mg/ml)	> 240
Doxorubicin HCl (2.0 mg/ml)	> 240
Etoposide (20.0 mg/ml)	> 240
Fluorouracil (50.0 mg/ml)	> 240
Methotrexate (25.0 mg/ml)	> 240
Mytomycin C (0.5 mg/ml)	> 240
Paclitaxel (6.0 mg/ml)	> 240
Thiotepa (10.0 mg/ml)	78.6
Vincristine Sulfate (1.0 mg/ml)	> 240
Vidaza (5-Azacytidine), 25 mg/ml	>240
Busulfan, 6 mg/ml	>240
Carboplatin, 10 mg/ml	>240
Docetaxel, 10 mg/ml	>240
Epirubicin HCl, 2 mg/ml	>240
Gemcitabine HCl, 38 mg/ml	>240
Ifosfamide, 50 mg/ml	>240
Irinotecan, 20 mg/ml	>240
Mitoxantrone HCl, 2 mg/ml	>240
Oxaliplatin, 5 mg/ml	>240
Vinorelbine, 10 mg/ml	>240

Fentanyl Citrate and Concentration	Minimum Breakthrough Detection Time in Minutes
Fentanyl Citrate Injection (100mcg/2ml)	>240

Caution: Testing showed a minimum breakthrough time of 38.3 minutes with Carmustine and 78.6 minutes with Thiotepa.  
Warning: Do not use with Carmustine

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)

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**CONTINUE ON A SEPARATE PAGE IF NEEDED.**

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

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## 510(k) SUMMARY FOR K251319

(The information contained herein is being provided in accordance with the requirements of 21 CFR 807.92)

### APPLICANT INFORMATION

Date Prepared : July 29, 2025  
Name : Hartalega NGC Sdn. Bhd.  
Address : No. 1, Persiaran Tanjung,  
Kawasan Perindustrian Tanjung,  
43900 Sepang, Selangor Darul Ehsan,  
Malaysia  
Establishment Registration Number : 3011200663

### CORRESPONDENT AND/OR PREPARER INFORMATION

Contact Name : Mahalia Liyana Mat Harun  
Contact Title : Manager – Regulatory Affairs  
Phone Number : (603) 8707 3000  
Fax Number : (603) 3271 0135  
Contact Email : [liyana.harun@hartalega.com.my](mailto:liyana.harun@hartalega.com.my)

### DEVICE IDENTIFICATION

Common Name of the Device : Examination Glove  
Trade Name (Proprietary Name) : Sterile Nitrile Powder Free Examination Glove Tested for Use with  
Chemotherapy Drugs and Fentanyl Citrate (Blue),  
Sterile Nitrile Powder Free Examination Glove Tested for Use with  
Chemotherapy Drugs and Fentanyl Citrate (Blue) – Extended Cuff  
Device Class : 1  
Product Code : LZA, LZC, QDO, OPJ  
Regulation Number : 21 CFR 880.6250  
Reason for 510(k) Submission : New device

**PREDICATE DEVICE INFORMATION**

510(k) Number	:	K201531
Manufacturer	:	Hartalega Sdn. Bhd.
Trade Name (Proprietary Name)	:	Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue)
Device Class	:	1
Product Code	:	LZA, LZC
Regulation Number	:	21 CFR 880.6250

**DESCRIPTION OF THE DEVICE:**

Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) and Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) – Extended Cuff, are disposable, single-use, sterile, blue-colored, and powder-free examination gloves made from nitrile latex.

**INDICATIONS FOR USE:**

Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) and Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) – Extended Cuff, is a sterile disposable device intended for medical purpose that is worn on the examiner's hand to prevent contamination between patient and examiner.

These gloves were tested for use with chemotherapy drugs and fentanyl citrate as per ASTM D6978 Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs.

<b>Chemotherapy Drug and Concentration</b>	<b>Minimum Breakthrough Detection Time in Minutes</b>
Carmustine (3.3 mg/ml)	38.3
Cisplatin (1.0 mg/ml)	> 240
Cyclophosphamide (20.0 mg/ml)	> 240
Dacarbazine (10.0 mg/ml)	> 240
Doxorubicin HCl (2.0 mg/ml)	> 240
Etoposide (20.0 mg/ml)	> 240
Fluorouracil (50.0 mg/ml)	> 240
Methotrexate (25.0 mg/ml)	> 240
Mitomycin C (0.5 mg/ml)	> 240
Paclitaxel (6.0 mg/ml)	> 240
Thiotepa (10.0 mg/ml)	78.6
Vincristine Sulfate (1.0 mg/ml)	> 240
Vidaza (5-Azacytidine), 25 mg/ml	> 240

<b>Chemotherapy Drug and Concentration</b>	<b>Minimum Breakthrough Detection Time in Minutes</b>
Busulfan, 6 mg/ml	> 240
Carboplatin, 10 mg/ml	> 240
Docetaxel, 10 mg/ml	> 240
Epirubicin HCl, 2 mg/ml	> 240
Gemcitabine HCl, 38 mg/ml	> 240
Ifosfamide, 50 mg/ml	> 240
Irinotecan, 20 mg/ml	> 240
Mitoxantrone HCl, 2 mg/ml	> 240
Oxaliplatin, 5 mg/ml	> 240
Vinorelbine, 10 mg/ml	> 240

**Caution:** Testing showed a minimum breakthrough time of 38.3 minutes with Carmustine and 78.6 minutes with Thiotepa.

**Warning:** Do not use with Carmustine.

<b>Fentanyl Citrate and Concentration</b>	<b>Minimum Breakthrough Detection Time in Minutes</b>
Fentanyl Citrate Injection, 100 mcg/2ml	> 240

**TECHNOLOGICAL CHARACTERISTICS COMPARISON TABLE:**

Characteristics and Parameters	Subject Device (1)	Subject Device (2)	Predicate Device (K201531)	Discussion																																																																
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<b>Type of use</b>	Over the counter use		Over the counter use	Same								
<b>Materials</b>	Nitrile		Nitrile	Same								
<b>Color</b>	Blue		Blue	Same								
<b>Design</b>	<ul style="list-style-type: none"> <li>• Single Use</li> <li>• Sterile</li> <li>• Powder-Free</li> <li>• Ambidextrous</li> </ul>		<ul style="list-style-type: none"> <li>• Single Use</li> <li>• Sterile</li> <li>• Powder-Free</li> <li>• Ambidextrous</li> </ul>	Same								
<b>Sterility</b>	Sterile		Sterile	Same								
<b>Sterilization</b>	Radiation		Radiation	Same								
<b>Sterility Assurance Level (SAL)</b>	10 <sup>-6</sup> SAL		10 <sup>-6</sup> SAL	Same								
<b>Freedom from holes</b>	Meets ASTM D5151-19 (2023): AQL 1.5		Meets ASTM D5151-06(2015): AQL 1.5	Similar								
<b>Length</b>	Meets ASTM D6319-19 (2023): Overall Length: ≥ 230 mm	Meets ASTM D6319-19 (2023): Overall Length: ≥ 260 mm	Meets ASTM D6319-10 (2015): Overall Length: ≥ 230 mm	Both subject devices meet the overall length specification in accordance with ASTM D6319. Subject Device (2) features an extended cuff design, with a minimum length of 260 mm, compared to 230 mm for the predicate device. This dimensional difference does not impact the safety or performance of the subject device, as all devices comply with								

Characteristics and Parameters	Subject Device (1)	Subject Device (2)	Predicate Device (K201531)	Discussion
	Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue)	Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) – Extended Cuff		
				applicable standard requirements.
<b>Width</b>	Meets ASTM D6319-19 (2023): XS: 60 – 80 (mm) S: 70 – 90 (mm) M: 85 – 105 (mm) L: 100 – 120 (mm) XL: 110 – 130 (mm)		Meets ASTM D6319-10 (2015): XS: 60 – 80 (mm) S: 70 – 90 (mm) M: 85 – 105 (mm) L: 100 – 120 (mm) XL: 110 – 130 (mm)	Similar
<b>Thickness</b>	Meets ASTM D6319-19 (2023): Palm Thickness: $\geq 0.05$ mm Finger Thickness: $\geq 0.05$ mm		Meets ASTM D6319-10 (2015): Palm Thickness: $\geq 0.05$ mm Finger Thickness: $\geq 0.05$ mm	Similar
<b>Physical Properties</b>	Meets ASTM D6319-19 (2023): Tensile Strength Before Aging: $\geq 14$ MPa Tensile Strength After Aging: $\geq 14$ MPa Ultimate Elongation Before Aging: $\geq 500$ % Ultimate Elongation After Aging: $\geq 400$ %		Meets ASTM D6319-10 (2015): Tensile Strength Before Aging: $\geq 14$ MPa Tensile Strength After Aging: $\geq 14$ MPa Ultimate Elongation Before Aging: $\geq 500$ % Ultimate Elongation After Aging: $\geq 400$ %	Similar
<b>Powder residual</b>	Meets ASTM D6319-19 (2023) & ASTM D6124-06 (2017): Residual Powder: $\leq 2$ mg per glove		Meets ASTM D6124-06 (2017): Residual Powder: $\leq 2$ mg per glove	Similar
<b>Primary Skin Irritation ISO 10993-23</b>	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
<b>Dermal Sensitization ISO 10993-10</b>	Under the conditions of the study, the device is not a sensitizer		Under the conditions of the study, the device is not a sensitizer	Same
<b>Acute Systemic Toxicity Test ISO 10993-11</b>	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

**SUMMARY OF NON-CLINICAL TESTING:**

Non-clinical testing was performed to verify that the subject devices meet the acceptance criteria of the performance test and all design specifications. The test results demonstrated that the subject device complies with the following standards as shown below.

Test	Purpose	Criteria	Result
Standard Test Method for Detection of Holes in Medical Gloves ASTM D5151-19(R2023)	To demonstrate glove integrity	Freedom from holes AQL 1.5%	Pass
Standard Test Method for Residual Powder on Medical Gloves ASTM D6124-06(R2022)	To demonstrate the gloves are 'powder free'	Average less than 2 mg/glove	Pass
Dimensional Conformance ASTM D6319(R2023)	To demonstrate appropriate dimensions for labeled sizes	Conforms to ASTM D6319 width, thickness, and length requirements for XS, S, M, L, and XL AQL 4%	Pass
Tensile Performance ASTM D6319(R2023)	To demonstrate adequate tensile properties	Conforms to ASTM D6319 tensile strength of at least 14MPa and ultimate elongation of at least 500% requirements prior to aging, and tensile strength of at least 14MPa and ultimate strength of at least 400% after accelerated aging AQL 4%	Pass
Biocompatibility: Skin Irritation ISO 10993-23	To demonstrate low potential for skin irritation	Under the conditions of the study, not an irritant.	Pass
Biocompatibility: Skin Sensitization ISO 10993-10	To demonstrate low potential for skin sensitization	Under the conditions of the study, not a sensitizer	Pass
Biocompatibility: Acute Systemic Toxicity ISO 10993-11	To demonstrate low acute systemic toxicity	Under the conditions of the study, no acute systemic toxicity.	Pass
<b>ASTM D6978</b> Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs	To demonstrate barrier properties of gloves to permeation of chemotherapy drugs and fentanyl citrate:  Carmustine (3.3 mg/ml) Cisplatin (1 mg/ml) Cyclophosphamide (20 mg/ml) Dacarbazine (10 mg/ml) Doxorubicin HCl (2 mg/ml) Etoposide (20 mg/ml) Fluorouracil (50 mg/ml) Methotrexate (25 mg/ml) Mitomycin C (0.5 mg/ml) Paclitaxel (6 mg/ml) Thiotepa (10 mg/ml) Vincristine Sulfate (1 mg/ml) Vidaza (5-Azacytidine), 25 mg/ml Busulfan, 6 mg/ml Carboplatin, 10 mg/ml Docetaxel, 10 mg/ml Epirubicin HCl, 2 mg/ml	N/A	Carmustine Minimum breakthrough time: 38.3 minutes  Thiotepa Minimum breakthrough time: 78.6 minutes  No breakthrough detected during 240-minute test duration for remaining tested chemotherapy drugs and fentanyl citrate

Test	Purpose	Criteria	Result
	Gemcitabine HCl, 38 mg/ml Ifosfamide, 50 mg/ml Irinotecan, 20 mg/ml Mitoxantrone HCl, 2 mg/ml Oxaliplatin, 5 mg/ml Vinorelbine, 10 mg/ml Fentanyl Citrate Injection, 100 mcg/2mL		

**CLINICAL PERFORMANCE DATA:**

Not applicable.

**CONCLUSION:**

The conclusions drawn from the non-clinical testing demonstrates that the subject devices (Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue); and Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs and Fentanyl Citrate (Blue) – Extended Cuff) are as safe, as effective and perform as well as or better than the legally marketed predicate device K201531, Sterile Nitrile Powder Free Examination Glove Tested for Use with Chemotherapy Drugs (Blue).