

November 30, 2020

Kimberly Clark Corporation % Wava Truscott Consultant Truscott MedSci Associates, LLC 180 Burkemeade Ct Roswell, Georgia 30075

Re: K202416

Trade/Device Name: Kimtech Prizm Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid, Kimtech Prizm Xtra Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

Regulation Number: 21 CFR 880.6250 Regulation Name: Non-Powdered Patient Examination Glove Regulatory Class: Class I, reserved Product Code: LZA, LZC, QDO Dated: November 25, 2020 Received: November 30, 2020

Dear Wava Truscott:

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 <a href="https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm">https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm</a> 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>.

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 <a href="https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products">https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products</a>) 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 <u>https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems</u>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<u>https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance</u>) and CDRH Learn (<u>https://www.fda.gov/training-and-continuing-education/cdrh-learn</u>). 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 (<u>https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice</u>) for more information or contact DICE by email (<u>DICE@fda.hhs.gov</u>) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

For: Elizabeth F. Claverie, MS
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

#### 510(k) Number: K202416

Device **1.)** Trade Name: KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

CHEMICAL	CONCENTRATION	STANDARD LENGTH
Cabazitaxel	60 mg/1.5ml (40,000 ppm)	>240 min.
Capecitabine	26 mg/ml (26,000 ppm)	>240 min.
Carmustine	3.3 mg/ml (3,300 ppm)	47.5 min.
Cisplatin	1 mg/ml (1,000 ppm)	>240 min.
Cyclophosphamide	20 mq/ml (20,000 ppm)	>240 min.
Dacarbazine	10 mg/ml (10,000 ppm)	>240 min.
Doxorubicin HCL	2 mq/ml (2,000 ppm)	>240 min.
Eribulin Mesylate	0.5 mg/ml (500 ppm)	>240 min.
Etoposide	20 mq/ml (20,000 ppm)	>240 min.
Floxuridine	100 mg/ml (100,000 ppm)	>240 min.
Fluorouracil	50 mq/ml (50,000 ppm)	>240 min.
Ifosfamide	50 mq/ml (50,000 ppm)	>240 min.
Lenvatinib	20 mg/ml (20,000 ppm)	>240 min.
Mitoxantrone	2 mg/ml (2,000 ppm)	>240 min.
Paclitaxel,	6 mg/ml (6,000 ppm)	>240 min.
Pemetrexed	25 mg/ml (25,000 ppm)	>240 min.
Sorafenib Tosylate	200 mg/ml (200,000 ppm)	>240 min.
Tamoxifen	2 mg/ml (2,000 ppm)	>240 min.
Thiotepa	10 mg/ml (10,000 ppm)	38.2 min.
Vinblastine Sulfate	1 mg/ml (1,000 ppm)	>240 min.
Vincristine Sulfate	1 mg/ml (1,000 ppm)	>240 min.
Vinorelbine	10 mg/ml (10,000 ppm)	>240 min.
Fentanyl Citrate	100mcg/2mL	>240 min.
Simulated Gastric Acid	0.2% (w/v) NaCl in 0.7% (v/v) HCL acid	>240 min.
Fentanyl in Gastric Acid	50/50 mix solution	>240 min.
Caution: Carmustine and Thiotepa	have low penetration times of 47.5 min. and 38.2 min. respe	ctively

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

Prescription Use (Part 21 CFR 801 Subpart D)

**X** Over-The-Counter (21 CFR 801 Subpart C)

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

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Form FDA 3881 (7/17)

#### 510(k) Number: K202416

Device 2.) Trade Name: KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Xtra Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

CONCENTRATION           60 mg/1.5ml (40,000 ppm)           26 mg/ml (26,000 ppm)	>240 min.
	>240 min.
3.3 mg/ml (3,300 ppm)	37.3 min.
1 mg/ml (1,000 ppm)	>240 min.
20 mq/ml (20,000 ppm)	>240 min.
10 mg/ml (10,000 ppm)	>240 min.
2 mq/ml (2,000 ppm)	>240 min.
0.5 mg/ml (500 ppm)	>240 min.
20 mq/ml (20,000 ppm)	>240 min.
100 mg/ml (100,000 ppm)	>240 min.
50 mq/ml (50,000 ppm)	>240 min.
50 mq/ml (50,000 ppm)	>240 min.
20 mg/ml (20,000 ppm)	>240 min.
2 mg/ml (2,000 ppm)	>240 min.
6 mg/ml (6,000 ppm)	>240 min.
25 mg/ml (25,000 ppm)	>240 min.
200 mg/ml (200,000 ppm)	>240 min.
2 mg/ml (2,000 ppm)	>240 min.
10 mg/ml (10,000 ppm)	30.1 min.
1 mg/ml (1,000 ppm)	>240 min.
1 mg/ml (1,000 ppm)	>240 min.
10 mg/ml (10,000 ppm)	>240 min.
100mcg/2mL	>240 min.
0.2% (w/v) NaCl in 0.7% (v/v) HCL acid	>240 min.
50/50 mix solution	>240 min.
	20 mq/ml (20,000 ppm)           10 mg/ml (10,000 ppm)           2 mq/ml (2,000 ppm)           0.5 mg/ml (500 ppm)           0.5 mg/ml (500 ppm)           100 mg/ml (100,000 ppm)           50 mq/ml (50,000 ppm)           50 mq/ml (50,000 ppm)           20 mg/ml (20,000 ppm)           20 mg/ml (20,000 ppm)           20 mg/ml (20,000 ppm)           20 mg/ml (2,000 ppm)           10 mg/ml (1,000 ppm)           10 mg/ml (10,000 ppm)           200 mg/ml (10,000 ppm)

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

Prescription Use (Part 21 CFR 801 Subpart D)

**X** Over-The-Counter (21 CFR 801 Subpart C)

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

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> 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"

#### 510(k) Number: K202416

**510(k) Summary** as required by 807.92(c) **FDA Format:** Traditional 510k

Preparation Date: November 22, 2020

**Trade Name**: KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

**Trade Name:** KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Xtra Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

#### 1. Submitter:

Company Name:	Kimberly-Clark Corporation
Address:	1400 Holcomb Bridge Road Roswell, GA 30076
Country:	United States
General phone:	+1 770-587-8000
Contact Person:	Juan M. Marquez Director, Regulatory Affairs Kimberly-Clark Corporation 1400 Holcomb Bridge Road Roswell, GA 30076
E-mail:	Juan.M.Marquez@kcc.com
Phone:	+1 678-352-6069
Fax:	+1 920-969-4863

#### 2. Device information:

Device Trade Name: KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

KIMTECH<sup>TM</sup> PRIZM <sup>TM</sup> Xtra Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

Classification name: Per 21 CFR 807.92(a)2(2): Patient Examination Glove

General Hospital and Personal Use Devices

Common name: Synthetic Non-powdered Exam Glove

Class: Class I (general controls)

Product Codes: LZA, LZC, QDO

## **Indications for use:**

**Intended Use:** The examination 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.

Testing was performed to determine Break-through times for the Chemotherapy drugs listed below, plus the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid.

**Trade Name:** KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Multi-Layered Gloves: ASTM D6978-05 (2019): "Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs"

CHEMICAL	CONCENTRATION	STANDARD Length
Cabazitaxel	60 mg/1.5ml (40,000 ppm)	>240 min.
Capecitabine	26 mg/ml (26,000 ppm)	>240 min.
Carmustine	3.3 mg/ml (3,300 ppm)	47.5 min.
Cisplatin,	1 mg/ml (1,000 ppm)	>240 min.
Cyclophosphamide	20 mq/ml (20,000 ppm)	>240 min.
Dacarbazine	10 mg/ml (10,000 ppm)	>240 min.
Doxorubicin HCL	2 mq/ml (2,000 ppm)	>240 min.
Eribulin Mesylate	0.5 mg/ml (500 ppm)	>240 min.
Etoposide	20 mq/ml (20,000 ppm)	>240 min.
Floxuridine	100 mg/ml (100,000 ppm)	>240 min.
Fluorouracil	50 mq/ml (50,000 ppm)	>240 min.
Ifosfamide,	50 mq/ml (50,000 ppm)	>240 min.
Lenvatinib	20 mg/ml (20,000 ppm)	>240 min.
Mitoxantrone	2 mg/ml (2,000 ppm)	>240 min.
Paclitaxel,	6 mg/ml (6,000 ppm)	>240 min.
Permetrexed	25 mg/ml (25,000 ppm)	>240 min.
Sorafenib Tosylate	200 mg/ml (200,000 ppm)	>240 min.
Tamoxifen	2 mg/ml (2,000 ppm)	>240 min.
Thiotepa	10 mg/ml (10,000 ppm)	38.2 min.
Vinblastine Sulfate	1 mg/ml (1,000 ppm)	>240 min.
Vincristine Sulfate	1 mg/ml (1,000 ppm)	>240 min.
Vinorelbine	10 mg/ml (10,000 ppm)	>240 min.
Fentanyl Citrate	100mcg/2mL	>240 min.
Simulated Gastric Acid	0.2% (w/v) NaCl in 0.7% (v/v) HCL acid	>240 min.
Fentanyl in Gastric Acid	50/50 mix solution	>240 min.
<b>Caution:</b> Carmustine and Trespectively	hiotepa have low penetration times of 47.5 min	n. and $\overline{38.2}$ min.

#### KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Multi-Layered Glove:

**Caution:** Carmustine and Thiotepa have breakthrough times of less than 60 minutes at 47.5 min. and 38.2 min. respectively

## **Indications for use:**

**Intended Use:** The examination 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.

Testing was performed to determine Break-through times for the Chemotherapy drugs listed below, plus the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid.

**Trade Name:** KIMTECHTM PRIZM TM Xtra Multi-Layered Exam Glove Tested for use with Chemotherapy Drugs, the Opioid Fentanyl Citrate, simulated Gastric Acid, and Fentanyl in Gastric Acid

CHEMICAL	CONCENTRATION	Xtra
Cabazitaxel	60 mg/1.5ml (40,000 ppm)	>240 min.
Capecitabine	26 mg/ml (26,000 ppm)	>240 min.
Carmustine	3.3 mg/ml (3,300 ppm)	37.3 min.
Cisplatin,	1 mg/ml (1,000 ppm)	>240 min.
Cyclophosphamide	20 mq/ml (20,000 ppm)	>240 min.
Dacarbazine	10 mg/ml (10,000 ppm)	>240 min.
Doxorubicin HCL	2 mq/ml (2,000 ppm)	>240 min.
Eribulin Mesylate	0.5 mg/ml (500 ppm)	>240 min.
Etoposide	20 mq/ml (20,000 ppm)	>240 min.
Floxuridine	100 mg/ml (100,000 ppm)	>240 min.
Fluorouracil	50 mq/ml (50,000 ppm)	>240 min.
Ifosfamide,	50 mq/ml (50,000 ppm)	>240 min.
Lenvatinib	20 mg/ml (20,000 ppm)	>240 min.
Mitoxantrone	2 mg/ml (2,000 ppm)	>240 min.
Paclitaxel,	6 mg/ml (6,000 ppm)	>240 min.
Permetrexed	25 mg/ml (25,000 ppm)	>240 min.
Sorafenib Tosylate	200 mg/ml (200,000 ppm)	>240 min.
Tamoxifen	2 mg/ml (2,000 ppm)	>240 min.
Thiotepa	10 mg/ml (10,000 ppm)	30.1 min.
Vinblastine Sulfate	1 mg/ml (1,000 ppm)	>240 min.
Vincristine Sulfate	1 mg/ml (1,000 ppm)	>240 min.
Vinorelbine	10 mg/ml (10,000 ppm)	>240 min.
Fentanyl Citrate	100mcg/2mL	>240 min.
Simulated Gastric Acid	0.2% (w/v) NaCl in 0.7% (v/v) HCL acid	>240 min.
Fentanyl in Gastric Acid	50/50 mix solution	>240 min.
<b>Caution:</b> Carmustine and T respectively	hiotepa have low penetration times of 37.3 min	n. and 30.1 min.

## KIMTECH<sup>TM</sup> PRIZM<sup>TM</sup> Xtra Multi-Layered Glove:

**Caution:** Carmustine and Thiotepa have breakthrough times of less than 60 minutes at 37.3 min. and 30.1 min. respectively

## **Subject Gloves Technological Characteristics Comparison Table**

# Predicate K200072 & K202416 Subject Gloves: Standard & Xtra Length

Attributes	Standard Test	Predicate Device: K200072	Subject Glove 1 (standard length) K202416	Subject Glove 2 (Xtra-length) K202416	Comparison
Common Name	NA	Synthetic Examination Glove	Synthetic Examination Glove	Synthetic Examination Glove	Same
Intended Use	NA	The examination 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.	The examination 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.	The examination 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.	Same
Base Material	NA	Synthetic: Nitrile	Synthetic: Nitrile & Polychloroprene	Synthetic: Nitrile & Polychloroprene	Similar: Predicate and both Subject gloves are Synthetic Both Predicate and Subject gloves possess nitrile Subject gloves also have polychloroprene in their formulation Does not adversely impact safety or performance
Color	NA	Purple	Dark Violet outer surface Deep Magenta inside surface	Dark Violet outer surface Deep Magenta inside surface	<b>Different</b> Subject gloves have different inner & outer surface colors. Does not adversely impact safety or performance
Product code	NA	LZA, LZC, QDO	LZA, LZC, QDO	LZA, LZC, QDO	Same

Standard Test	Predicate Device: K200072	Subject Glove 1 (standard length) K202416	Subject Glove 2 (Xtra-length) K202416	Comparison
NA	Non-sterile	Non-sterile	Non-sterile	Same
NA	отс	отс	отс	Same
NA	Yes	Yes	Yes	Same
ASTM D1678-05	Glove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric Acid	Glove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric Acid	Glove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric Acid	Same: Test Method Same: Fentanyl Citrate, simulated Gastric Acid and Fentanyl in Gastric Acid Similar: Chemotherapy Chemicals tested (see below)
ASTM D1678-05	Chemotherapy drugs tested: Carmustine (BCNU) Cisplatin, Cyclophosphamide (Cytoxan), Dacarbazine (DTIC) Doxorubicin Hydrochloride, Etoposide (Toposar) Fluorouracil, Methotrexate Paclitaxel (Taxol), Thiotepa Vincristine Sulfate	Chemotherapy drugs tested: Cabazitaxel Capecitabine Carmustine Cisplatin, Cyclophosphamide Dacarbazine Doxorubicin HCL Eribulin Mesylate Etoposide Floxuridine Fluorouracil Ifosfamide, Lenvatinib Mitoxantrone Paclitaxel, Permetrexed Sorafenib Tosylate Tamoxifen Thiotepa Vinblastine Sulfate Vincristine Sulfate	Chemotherapy drugs tested: Cabazitaxel Capecitabine Carmustine Cisplatin, Cyclophosphamide Dacarbazine Doxorubicin HCL Eribulin Mesylate Etoposide Floxuridine Fluorouracil Ifosfamide, Lenvatinib Mitoxantrone Paclitaxel, Permetrexed Sorafenib Tosylate Tamoxifen Thiotepa Vinblastine Sulfate Vincristine Sulfate	Similar: Some chemotherapy drugs are different
	TestNANANAASTM D1678-05	TestK200072NANon-sterileNAOTCNAYesASTM D1678-05Glove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric AcidASTM D1678-05Chemotherapy drugs tested: Carmustine (BCNU) Cisplatin, Cyclophosphamide (Cytoxan), Dacarbazine (DTIC) Doxorubicin Hydrochloride, Etoposide (Toposar) Fluorouracil, Methotrexate Paclitaxel (Taxol), Thiotepa	Standard TestPredicate Device: K200072(standard length) K202416NANon-sterileNon-sterileNAOTCOTCNAYesYesASTM D1678-05Glove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric AcidGlove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric AcidGlove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, Simulated Gastric acid, and Fentanyl in Gastric AcidASTM D1678-05Chemotherapy drugs tested: Carmustine (DTIC) Doxorubicin Hydrochloride, Etoposide Flooruracil, Hydrochloride, Etoposide Flourouracil, Huethorexate Paclitaxel (Taxol), Thiotepa Vincristine SulfateChemotherapy drugs tested: Casazitaxel Caspetiabine Caspetiabine Casposide Flourouracil Hotoraci, Hethorexate Paclitaxel (Taxol), Thiotepa Vincristine SulfateChemotherapy drugs tested: Caspetiabine Caspetiabine Caspetiabine Carmustine Cyclophosphamide Dacarbazine Doxorubicin HCL Etoposide Flourouracil Hotoraci, Hethorexate Paclitaxel (Taxol), Thiotepa Vincristine SulfatePermetrexed Sorafenib Tosylate Tamoxifen Thiotepa Vincristine Sulfate	Standard TestPredicate Device: K200072(standard length) K202416(Xtra-length) K202416NANon-sterileNon-sterileNon-sterileNAOTCOTCOTCNAYesYesYesASTM D1678-05Glove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric AcidGlove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric AcidGlove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric AcidGlove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric AcidGlove was Tested for use with chemotherapy drugs, the Opioid Fentanyl Citrate, simulated Gastric acid, and Fentanyl in Gastric 

Attributes	Standard Test	Predicate Device: K200072	Subject Glove 1 (standard length) K202416	Subject Glove 2 (Xtra-length) K202416	Comparison
		In Addition: Fentanyl Citrate simulated Gastric Acid, Fentanyl in Gastric Acid	In Addition: Fentanyl Citrate simulated Gastric Acid, Fentanyl in Gastric Acid	In Addition: Fentanyl Citrate simulated Gastric Acid, Fentanyl in Gastric Acid	Same
Caution/ Warning Statements	NA	Note: Carmustine and Thiotepa have extremely low permeation times of 3.6 &15.9 min. respectively. WARNING: Do Not Use With: Carmustine, Thiotepa	Caution: Carmustine and Thiotepa have low permeation times below 60 minutes at 47.5 min and 38.2 min. respectively	Caution: Carmustine and Thiotepa have low permeation times below 60 minutes at 37.3 min and 30.1 min. respectively	<b>Different</b> The predicate has a Warning while both Subject Glove 1 and 2 have Caution statement
Dimensions: Overall Length	ASTM D6319 Minimum: 230mm	All sizes comply with length dimensions	All sizes comply with length dimensions	All sizes comply with length dimensions	Same
Dimensions: Overall Width	ASTM D6319 Minimum: 110 <u>+ 10mm</u>	All sizes comply with length dimensions	All sizes comply with length dimensions	All sizes comply with length dimensions	Same
Dimensions: Palm & Finger Thickness	ASTM D6319 Minimum: Palm: 0.05mm Finger: 0.05mm	All sizes comply with length dimensions	All sizes comply with length dimensions	All sizes comply with length dimensions	Same
Tensile strength: Before & After Aging	ASTM D6319 Minimum Before: 14MPa After: 14Mpa	Complies both before and after accelerated aging	Complies both before and after accelerated aging	Complies both before and after accelerated aging	Same
Ultimate elongation Before & After aging	ASTM D6319 Minimum: Before: 500% After: 400%	Complies both before and after accelerated aging	Complies both before and after accelerated aging	Complies both before and after accelerated aging	Same

Attributes	Standard Test	Predicate Device: K200072	Subject Glove 1 (standard length) K202416	Subject Glove 2 (Xtra-length) K202416	Comparison
Freedom from holes	ASTM D6319 G1, AQL 2.5 7 Accept 8 Reject	Pass	Pass	Pass	Same
Powder Free	ASTM 6319 Maximum <2mg/glove	Pass	Pass	Pass	Same
	ISO 10993- 11 Systemic Toxicity Test ISO 10993- 10 Primary Skin Irritation on	Under conditions of the study, the device extracts did not elicit a systemic response in the model animal. Under Conditions of this study, the polar and non- polar device	Under conditions of the study, the device extracts did not elicit a systemic response in the model animal. Under Conditions of this study, the polar and non-	Under conditions of the study, the device extracts did not elicit a systemic response in the model animal. Under Conditions of this study, the polar and non-	Same
Bio- compatibility	Rabbits	extracts were found not to be an irritant to the animal model.	polar device extracts were found not to be an irritant to the animal model.	polar device extracts were found not to be an irritant to the animal model.	Same
	ISO 10993- 10 Magnusson & Kligman Guinea pig Maximization	Under Conditions of this study, the polar and non- polar device extracts were found not to be sensitizers to the animal model.	Under Conditions of this study, the polar and non- polar device extracts were found not to be sensitizers to the animal model.	Under Conditions of this study, the polar and non- polar device extracts were found not to be sensitizers to the animal model.	Same

Non-Clinical Testing was conducted to demonstrate that the two proposed devices met all required design specifications. The test results demonstrated that the proposed devices did meet the performance criteria as specified utilizing the following test method standards and specifications:

Summary of Non-Clinical Performance Tests			
<b>ASTM D6319-10</b> Standard Specification for Nitrile Examination Gloves for Medical Application	Pass		
<b>ASTM D412-2006a</b> (Reapproved 2013) Standard Test Method for Vulcanized Rubber and Thermoplastic Elastomers-Tension	Pass		
ASTM D573-2004 (Reapproved 2010) Standard Test Method for Rubber- Deterioration in an Air Oven	Pass		
ASTM D3767-03 Standard Practice for Rubber Measurement of Dimensions	Pass		
<b>ASTM D5151-2006</b> (Reapproved 2015) Standard Test Method for Detection of holes in Medical Gloves	Pass		
<b>ASTM D6124-2006</b> (Reapproved 2015) Standard Tested Method for Residual Powder on Medical Gloves	Pass		
<b>ASTM D6978-05</b> (Reapproved 2013) Standard Practice for Assessment of Resistance of Medical Gloves to Permeation by Chemotherapy Drugs	Pass		
ISO 2859 Sampling Procedures and Tables for Inspection by Attributes	Pass		
<b>ISO 10993-10</b> Biological Evaluation of medical Devices-Part 10: Tests for Irritation and Sensitization	Pass		
ISO 10993-11 Biological Evaluation of Medical Devices-Part 11: Tests for Systemic Toxicity	Pass		

**Conclusion:** The conclusions drawn from the nonclinical and clinical tests demonstrate that the subject devices are as safe, as effective, and performs as well as or better than the legally marketed device.