

August 23, 2023

Ansell Healthcare Products, LLC. Don Cronk Director, Regulatory Affairs for the Americas 2301 Robb Drive Reno, Nevada 89523

Re: K230079

Trade/Device Name: Polyisoprene Surgical Gloves Tested for Use with Chemotherapy Drugs and Low Dermatitis Potential
Regulation Number: 21 CFR 878.4460
Regulation Name: Non-Powdered Surgeon's Glove
Regulatory Class: Class I, reserved
Product Code: KGO, LZC, OPJ
Dated: July 20, 2023
Received: July 24, 2023

Dear Don Cronk:

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 <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,

Bifeng Qian -S

BiFeng Qian, M.D., Ph.D
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)* K230079

Device Name

Polyisoprene Surgical Gloves Tested for Use with Chemotherapy Drugs and Low Dermatitis Potential

Indications for Use (Describe)

These surgical gloves are intended to be worn by operating room personnel to protect a surgical wound from contamination. These gloves were tested for use with chemotherapy drugs, have low dermatitis potential, and are non-pyrogenic. These gloves were tested for use with Chemotherapy Drugs as per ASTM D6978-05 Standard Practice for Assessment of Medical Gloves to Permeation by Chemotherapy Drugs.

Tested chemotherapy drugs are as follows:

Test Chemotherapy drug & Concentration	Breakthrough Detection Time (Minutes)
Bleomycin (15 mg/ml)	>240
Busulfan (6 mg/ml)	>240
Carmustine (BCNU) (3.3 mg/ml)	12.6
Cisplatin (1.0 mg/ml)	>240
Cyclophosphamide (Cytoxan) (20.0 mg/ml)	>240
Cytarabine (100 mg/ml)	>240
Dacarbazine (DTIC) (10.0 mg/ml)	>240
Daunorubicin (5 mg/ml)	>240
Docetaxel (10.0 mg/ml)	>240
Doxorubicin Hydrochloride (2.0 mg/ml)	>240
Etoposide (Toposar) (20.0 mg/ml)	>240
Fludarabine (25 mg/ml)	>240
Fluorouracil (50.0 mg/ml)	>240
Gemcitabine (Gemzar) (38 mg/ml)	>240
Idarubicin (1 mg/ml)	>240
Ifosfamide (50.0 mg/ml)	>240
Irinotecan (20.0 mg/ml)	>240
Mechlorethamine HCI (1.0 mg/ml)	>240
Melphalan (5 mg/ml)	>240
Methotrexate (25 mg/ml)	>240
Mitomycin C (0.5 mg/ml)	>240
Mitoxantrone (2.0 mg/ml)	>240
Oxaliplatin (2.0 mg/ml)	>240
Paclitaxel (Taxol) (6.0 mg/ml)	>240
Paraplatin (10 mg/ml)	>240
Thiotepa (10.0 mg/ml)	26.6
Vincristine Sulfate (1.0 mg/ml)	>240
Ellence (2 mg/ml)	>240
Rituximab (10 mg/ml)	>240

Please note that the following drugs have extremely low permeation times: Carmustine (BCNU) 12.6 minutes and Thiotepa: 26.6 minutes. Warning Do not use with Carmustine and Thiotepa

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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510K Summary

K230079 Submitter: Ansell Healthcare Products LLC. 2301 Robb Drive Reno, NV 89523 USA

Contact Person(s):

Don Cronk Assoc. Director, Regulatory Phone: 775-750-1723 don.cronk@ansell.com

Carson Delaloye Sr. Administrator, Quality Phone: 530-401-8977 carson.delaloye@ansell.com

Date Prepared: August 23, 2023

Name of Device

Trade Names:	Polyisoprene Surgical Gloves Tested for Use with Chemotherapy Drugs and Low Dermatitis Potential
Common Name:	Surgeon's Gloves
Classification Name:	Non-Powdered Surgeon's Glove
Classification Regulation:	21 CFR 878.4460
Device Class: Product	I contraction of the second
Code: Classification	KGO, LZC, OPJ
Panel: 510k Number	General and Plastic Surgery
Assigned:	K230079

Legally Marketed Predicate Device

K190018 – Gammex Non-Latex PI White Polyisoprene Surgical Gloves Tested for Use with Chemotherapy Drugs

Device Description

Polyisoprene Surgical Gloves Tested for Use with Chemotherapy Drugs and Low Dermatitis Potential are sterile and disposable devices. Gloves are made of synthetic polyisoprene rubber, are white in color, and are available in sizes 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, and 9.0. A polyurethane polymer coating is applied to the inner surface of the glove to make donning easy.

Indication for Use Statement

These surgical gloves are intended to be worn by operating room personnel to protect a surgical wound from contamination. These gloves were tested for use with chemotherapy drugs, have low dermatitis potential, and are non-pyrogenic. These gloves were tested for use with Chemotherapy Drugs as per ASTM D6978-05 Standard Practice for Assessment of Medical Gloves to Permeation by Chemotherapy Drugs.

Please note that the following drugs have extremely low permeation times: Carmustine (BCNU) 12.6 minutes and Thiotepa: 26.6 minutes. Warning Do not use with Carmustine and Thiotepa.

Ellence (2 mg/ml)

Rituximab (10 mg/ml)

TEST CHEMOTHERAPY DRUG AND CONCENTRATION	MINIMUM BREAKTHROUGH TIME (Minutes)
Blenoxane (15 mg/ml)	>240
Busulfan (6 mg/ml)	>240
Carmustine (BCNU) (3.3 mg/ml)	12.6
Cisplatin (1.0 mg/ml)	>240
Cyclophosphamide (Cytoxan) (20.0 mg/ml)	>240
Cytarabine (100 mg/ml)	>240
Dacarbazine (DTIC) (10.0 mg/ml)	>240
Daunorubicin (5 mg/ml)	>240
Docetaxel (10.0 mg/ml)	>240
Doxorubicin Hydrochloride (2.0 mg/ml)	>240
Etoposide (Toposar) (20.0 mg/ml)	>240
Fludarabine (25 mg/ml)	>240
Fluorouracil (50.0 mg/ml)	>240
Gemcitabine (Gemzar) (38 mg/ml)	>240
Idarubicin (1 mg/ml)	>240
Ifosfamide (50.0 mg/ml)	>240
Irinotecan (20.0 mg/ml)	>240
Mechlorethamine HCI (1.0 mg/ml)	>240
Melphalan (5 mg/ml)	>240
Methotrexate (25 mg/ml)	>240
Mitomycin C (0.5 mg/ml)	>240
Mitoxantrone (2.0 mg/ml)	>240
Oxaliplatin (2.0 mg/ml)	>240
Paclitaxel (Taxol) (6.0 mg/ml)	>240
Paraplatin (10 mg/ml)	>240
Thiotepa (10.0 mg/ml)	26.6
Vincristine Sulfate (1.0 mg/ml)	>240

Chemotherapy Drug Permeation

(Minimum breakthrough detection time in minutes) (ASTM D6978-05 2019)

>240

>240

Technical Charac	cteristic Comparison Ta	ble			
	Predicate Device		Subject Device	Subject Device	
Trade Name	Gammex Non-Latex PI WhitePolyisoprene Surgical Glove TestedPolyisoprene Surgical Gloves Tested forfor Use with Chemotherapy Drugs and		Different		
	Use with Chemotherapy Drugs Low Dermatitis Potential				
510(k) Number	K190018 K230079			Different	
Submitter	Ansell Healthcare Products LLC		Ansell Healthcare	Ansell Healthcare Products LLC	
Product Code	KGO		KGO, LZC, OPJ	KGO, LZC, OPJ	
Regulation	21 CFR 878.4460		21 CFR 878.4460		Same
Number					
Regulation Name	Non-powdered Surgeon's glove		Non-powdered Su	Non-powdered Surgeon's glove	
Indications	Gammex Non-Latex PI White	Surgical Gloves Tested	These surgical gloves ar	e intended to be worn by	Cimilar
for Use	for Use with Chemotherapy I	Drugs are intended to be	operating room person	nel to protect a surgical wound	Similar
	worn by operating room per	sonnel to protect a	from contamination. Th	ese gloves were tested for use	
	surgical wound from contami	nation. These gloves	with chemotherapy dru	gs, have low dermatitis	
	ASTM D6978-05 Standard Pr	notherapy Drugs as per	tested for use with Che	motherany Drugs as ner ASTM	
	Medical Gloves to Permeatio	n by Chemotherapy	D6978-05 Standard Prac	tice for Assessment of Medical	
	Drugs.	.,	Gloves to Permeation b	y Chemotherapy Drugs.	
			Tested chemotherapy d	rugs are as follows:	
	Tested chemotherapy drugs a	are as follows:			
	DRUGAND	MINIMUM	DRUGAND	MINIMUM	
	CONCENTRATION	DETECTION	CONCENTRATION	TIME (Minutes)	
		TIME (Minutes)			
	Blenoxane (15	>240	Blenoxane (15	>240	
	mg/ml)	> 240	Busulfan (6 mg/ml)	>2/0	
	Busultari (6 mg/mi)	>240		~240	
	Carmustine(BCNU)	10.2	(3.3 mg/ml)	12.6	
	(5.5 mg/m)				
	Cisplatin (1.0 mg/ml)	>240	Cisplatin (1.0 mg/ml)	>240	
	Cyclophosphamide	>240	Cyclophosphamide	>240	
	(Cytoxan) (20.0		(Cytoxan) (20.0		
	mg/ml)	> 240	(utarabina (100	> 240	
	cytarabilie (100	>240	mg/ml)	>240	
	Dacarbazine (DTIC)	>240	Dacarbazine (DTIC)	>240	
	(10.0 mg/ml)		(10.0 mg/ml)		
	Daunorubicin (5	>240	Daunorubicin (5	>240	
	mg/ml)		mg/ml)		
	Docetaxel (10.0	>240	Docetaxel (10.0	>240	
	mg/ml)	>240	Dovorubicin	>240	
	Hydrochloride (2.0	~240	Hydrochloride (2.0	~240	
	mg/ml)		mg/ml)		
	Etoposide (Toposar)	>240	Etoposide (Toposar)	>240	
	(20.0 mg/ml)		(20.0 mg/ml)		
	Fludarabine (25	>240	Fludarabine (25	>240	
	mg/ml)	> 240	mg/mi)	>240	
	riuorouracii (50.0	>240	mg/ml)	>240	
	Gemcitabine	>240	Gemcitabine	>240	
	(Gemzar) (38 mg/ml)		(Gemzar) (38 mg/ml)		

	Idarubicin (1 mg/ml)	>240	Idarubicin (1 mg/ml)	>240	
	Ifosfamide (50.0	>240	Ifosfamide (50.0	>240	
	mg/ml)		mg/ml)		
	Irinotecan (20.0	>240	Irinotecan (20.0	>240	
	mg/ml)	>240	mg/ml)	>240	
	(1.0 mg/ml)	>240	(1.0 mg/ml)	>240	
	Melphalan (5 mg/ml)	>240	Melphalan (5 mg/ml)	>240	
	Mothetrovate (25	>240	Mothotrovato (25	>240	
	mg/ml)	~240	mg/ml)	~240	
	Mitomycin C (0.5	>240	Mitomycin C (0.5	>240	
	mg/ml)		mg/ml)		
	Mitoxantrone (2.0	>240	Mitoxantrone (2.0	>240	
	mg/ml)		mg/ml)		
	Oxaliplatin (2.0	>240	Oxaliplatin (2.0	>240	
	mg/ml)		mg/ml)		
	Paclitaxel (Taxol) (6.0	>240	Paclitaxel (Taxol) (6.0	>240	
	Paraplatin (10 mg/ml)	>240	Paraplatin (10 mg/ml)	>240	
		>240		~240	
	Thiotepa (10.0 mg/ml)	11.5	Thiotepa (10.0 mg/ml)	26.6	
	Vincristine Sulfate (1.0	>240	Vincristine Sulfate (1.0	>240	
	Fllence (2 mg/ml)	>240	Filence (2 mg/ml)	>240	
	Dituvingeh (10 mg/ml)	>240	Bituvinab (10 mg/ml)	>240	
	Rituximab (10 mg/mi)	>240		>240	_
	Please note that the f	ollowing drugs have	Please note that the f	ollowing drugs have	
	extremely low perm	eation times:	extremely low perm	eation times:	
	Carmustine (BCNU)	10.2 minutes and	Carmustine (BCNU)	12.6 minutes and	
	Thiotepa: 11.5 minut	tes. Warning Do not	Thiotepa: 26.6 minut	tes. Warning Do not	
	use with Carmustine and Thiotepa		use with Carmustine and Thiotepa		_
Prescription	Over-The-Counter-Use		Over-The-Counter-Use	e	Same
or Over-					
The					
Counter-					
Use					
Materials	Synthetic polyisopre	ne rubber	Synthetic polyisopre	ne rubber	Same
Coating	Polyurethane polyme	er inner coating to	Polyurethane polym	er inner coating to	Same
U	aid donning	0	aid donning	0	
Design	Single use		Single use		Same
	Powder-free		Powder-free		Same
	Hand Specific		Hand Specific		Same
	Beaded cuff		Beaded cuff		Same
Color	White		White		Same
Sizes	5.5. 6.0. 6.5. 7.0. 7.5	. 8.0. 8.5. 9.0	5.5. 6.0. 6.5. 7.0. 7.5	. 8.0. 8.5. 9.0	Same
Dimensions and			Moots ASTM D2577	, 0.0, 0.0, 0.0	Samo
physical properties	INTERIS ASTINI DS577		Meets ASTM DS577		Same
Sterility	Sterile		Sterile		Same
-					
Sterilization method	Irradiation		Irradiation		Same

Sterility Assurance Level (SAL)	10-6 SAL	10-6 SAL	Same
Freedom from holes	Meets ASTM D3577- 09(2015) Inspection level/AQL: GI/AQL 1.5	Meets ASTM D3577- 09(2015) Inspection level/AQL: GI/AQL 1.5	Similar
Powder-Free	Meets ASTM D 6124-06. Meets Applicable Definition for Powder Free; ≤ 2 mg per glove	Meets ASTM D 6124-06. Meets Applicable Definition for Powder Free; ≤ 2 mg per glove	Same
Protein Content	Not Applicable	Not Applicable	Same
In Vitro Cytotoxicity	Failed. Cytotoxicity Grade 4.	Failed. Cytotoxicity Grade 4.	Same
Biocompatibility Primary Skin Irritation ISO 10993- 10:2010	Under the conditions of the study (per ISO 10993-10), the device is not an irritant	Under the conditions of the study (per ISO 10993-10), the device is not an irritant	Same
Biocompatibility Dermal Sensitization - ISO 10993- 10:2010	Under the conditions of the study (per ISO 10993-10), not a sensitizer	Under the conditions of the study (per ISO 10993-10), not a sensitizer	Same
Biocompatibility Acute Systemic Toxicity - ISO 10993-11: 2006	Under the conditions of the study, there was no mortality or evidence of acute systemic toxicity	Under the conditions of the study, there was no mortality or evidence of acute systemic toxicity	Same
Material- Mediated Pyrogenicity	No pyrogenicity claims made	Under the conditions of the study, both inner and outer surface is non-pyrogenic	Different
Bacterial Endotoxin	No endotoxin claims	Under the conditions of the study, test results indicate low endotoxin level	Different
Low Dermatitis Potential	No low dermatitis potential claims made	Under the conditions of the study, the test results demonstrated low dermatitis potential for the subject glove.	Different

The subject device is manufactured from synthetic polyisoprene rubber with polyurethane polymer inner coating to aid donning. The predicate device is manufactured from synthetic polyisoprene rubber with polyurethane polymer inner coating to aid donning.

The subject device meets the applicable requirements for surgeon's gloves with regards to dimensions and sizes, physical properties, freedom from holes, and powder residues, as found in the following standards: ASTM D3577, ASTM D5151 and ASTM D6124. The subject device passes biological reactivity testing for dermal sensitization, irritation, acute systemic toxicity, and material-mediated pyrogenicity in accord with the ISO 10993-10 and ISO 10993-11.

Summary of Non-clinical Testing

Technological Characteristics	Purpose	Standard/Test/FDA Guidance Criteria	Result Summary
Dimensions	To evaluate the dimension of the glove	ASTM D3577 Meets ASTM D3577 requirements for length, width and thickness	Pass
Length		Minimum 265mm	Pass
Palm Width (size)		(mm)	Pass
5.5		70±6	Pass
6.0		76±6	Pass
6.5		83±6	Pass
7.0		89±6	Pass
7.5		95±6	Pass
8.0		102±6	Pass
8.5		108±6	Pass
9.0		114±6	Pass
Thickness	To evaluate the thickness	(mm)	Pass
Finger	of the glove	Minimum 0.10	Pass
Palm		Minimum 0.10	Pass
Cuff		Minimum 0.10	Pass
Physical Properties	To evaluate the tensile strength, ultimate elongation, and stress at 500% elongation	ASTM D3577-19 Meets ASTMD3577-19 requirements for tensile strength, ultimate elongation and stress at 500% elongation before and after accelerated aging for synthetic surgical gloves	Pass
Freedom from holes	To evaluate the presence of holes in the gloves	ASTM D3577-19 ASTM D5151-06 Meets ASTM D3577-19 and ASTM D5151-06 requirements AQL 1.5	Pass
Powder-Free	To evaluate the level of powder on the gloves	ASTM D3577-19 ASTM D6124-06 Meets applicable requirement for Powder Free; ≤ 2 mg per glove	Pass
Sterility	To demonstrate the sterilization performance	ANSI/AAMI/ISO 11137-1:2018 Meets ANSI/AAMI/ISO 11137- 1:2018 requirement of 10 ⁻⁶ SAL	Pass

Technological Characteristics		Standard/Test/FDA Guidance	Result Summary		
Biocompatibility:					
ISO in vitro cytotoxicity	To evaluate cytotoxicity	ISO 10993-5:2009 Non-cytotoxic	Under the conditions of the study, the device was found to be cytotoxic and therefore the device extracts were evaluated by ISO 10993-11 – Test for systemic toxicity. From Acute Systemic Toxicity device extracts, the device extracts did not elicit acute systemic response in the animal model.		
ISO Skin Irritation Study	To demonstrate low skin irritation potential	ISO 10993-10:2010 Under the conditions of the study, not an irritant	Pass		
ISO Maximization Sensitization Study	To demonstrate low sensitization potential	ISO 10993-10:2010 Under the conditions of the study not a sensitizer	Pass		
ISO Acute Systemic Toxicity Study	To demonstrate no acute systemic toxicity	ISO 10993-11:2006 Under the conditions of the study, there was no morality or evidence of acute systemic toxicity	Pass		
Chemotherapy Permeation Standard	To demonstrate chemotherapy drug barrier performance	ASTM D6978 - 05(2019) Under the conditions of the study the permeation is acceptable for the drugs tested for use with the subject gloves	Pass		
Human Skin Sensitization	To demonstrate low dermatitis potential	Modified Draize-95 Test Under the conditions of the study, not a sensitizer.	Pass		
Endotoxin Study	To demonstrate low endotoxin levels	Less than 20.0 EU/device	Pass		
Material Mediated Pyrogenicity Study	To demonstrate low pyrogenicity potential	ISO 10993-11:2017 Under the conditions of the study, has met the material mediated pyrogenicity requirement	Pass		

Clinical Summary:

Polyisoprene Surgical Gloves Tested for Use with Chemotherapy Drugs and Low Dermatitis potential were tested in accordance with Modified Draize-95 Test, per FDA's guidance document "Guidance for Industry and FDA Reviewers/Staff: Premarket Notification [510k] Submissions for Testing Skin Sensitization Chemicals in Natural Rubber Products 1999". Both the inner and the outer surfaces of the subject glove were tested. The results showed low dermatitis potential for the human subject tested.

Conclusion

The conclusions drawn from the clinical and non-clinical tests performed demonstrate that the subject device, Polyisoprene Surgical Gloves Tested for Use with Chemotherapy Drugs and Low Dermatitis Potential, is as safe, as effective, and performs as well as or better than the predicate device K190018.