



February 7, 2023

Qinhuangdao Taizhi Medical Technology Co., Ltd.  
% Mr. Boyle Wang  
General Manager  
Shanghai Truthful Information Technology Co., Ltd.  
Room 608, No.738 Shangcheng Rd.  
Pudong Shanghai, Shanghai 200120  
China

Re: K223686

Trade/Device Name: Medical Protective Masks  
Regulation Number: 21 CFR 878.4040  
Regulation Name: Surgical Apparel  
Regulatory Class: Class II  
Product Code: FXX  
Dated: December 9, 2022  
Received: December 9, 2022

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

Sincerely,

Katherine D. Kavlock -S

for  
Brent Showalter, Ph.D.  
Assistant Director  
DHT6B: Division of Spinal Devices  
OHT6: Office of Orthopedic Devices  
Office of Product Evaluation and Quality  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)  
K223686

Device Name  
Medical Protective Masks

### Indications for Use (Describe)

Medical Protective Masks is intended to be worn to protect both the patient and healthcare personnel from transfer of microorganisms, body fluids and particulate material. It is intended for use in infection control practices to reduce the potential exposure to blood and body fluids. This is a single use, disposable device(s), provided non sterile.

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.

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## **510(k) Summary**

This summary of 510(k) safety and effectiveness information is being submitted in accordance with requirements of SMDA 1990 and 21 CFR 807.92.

### **1.0 Submitter's information**

Name: Qinhuangdao Taizhi Medical Technology Co., Ltd.  
Address: Small and Medium Enterprises Incubator Base, East Circular Economy Park, Haigang District, Qinhuangdao City, Hebei Province, China  
Phone Number: +86-13383659307  
Contact: Ms. Fan Xifan  
Date of Preparation: 18/11/2022

### **Designated Submission Correspondent**

Mr. Boyle Wang  
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Tel: +86-21-50313932  
Email: Info@truthful.com.cn

### **2.0 Device information**

Trade name: Medical Protective Masks  
Common name: Surgical face mask  
Classification name: Mask, Surgical  
Style(s): Expanded chamber, Longitudinal fold, ear strap, 4 layers

### **3.0 Classification**

Production code: FXX  
Regulation number: 21CFR 878.4040  
Classification: Class II  
Panel: Surgical apparel

### **4.0 Primary Predicate device information**

Manufacturer: Qinhuangdao Taizhi Medical Technology Co., Ltd.  
Device: Medical Protective Masks  
510(k) number: K212205

### **5.0 Indication for Use Statement**

Medical Protective Masks is intended to be worn to protect both the patient and

healthcare personnel from transfer of microorganisms, body fluids and particulate material. It is intended for use in infection control practices to reduce the potential exposure to blood and body fluids. This is a single use, disposable device(s), provided non sterile.

## **6.0 Device description**

The mask materials include four layers, the inner and outer layers are made of spun-bond polypropylene, and the two middle layers are melt-blown polypropylene and non-woven polypropylene filters, respectively.

The ear straps are held in place over the users' mouth and nose by two elastic ear straps welded to the facemask. The elastic ear straps are not made with natural rubber latex. The nose piece on the layers of facemask is to allow the user to fit the facemask around their nose, which is made of PE (polyethylene) with dual-Galvanized wire. The mask is a single use, disposable device, provided non-sterile in black color.

## **7.0 Non-Clinical Test Conclusion**

The proposed device was tested and conformed to the related recognized standards and the requirements stated in the Guidance for Industry and FDA Staff: Surgical face masks – Premarket Notification [510(k)] Submission issued on March 5, 2004.

**Table 1 - Performance Testing**

Items	Performance	Acceptance Criteria (Level 2, ASTM F2100-19)	Result
Bacterial filtration efficiency (BFE) (%)	99.0%-99.8%	≥98	Pass
Different pressure (mmH <sub>2</sub> O/cm <sup>2</sup> )	2.8-4.0 mmH <sub>2</sub> O/cm <sup>2</sup>	<6.0 mmH <sub>2</sub> O/cm <sup>2</sup>	Pass
Sub-micron particulate filtration efficiency at 0.1 micron, % (PFE)	99.66~99.85%	≥98	Pass
Resistance to penetration by synthetic blood, Minimum pressure in mmHg for pass result	Test 1-3: 32 of 32 test articles passed at 120mmHg;	32 of 32 test articles passed at 120mmHg	Pass
Flame spread	Class 1, Non Flammable	Class 1	Pass

**Table 2 - Biocompatibility Testing**

Testing Items	Standards	Results
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## 510(k) Summary

Cytotoxicity	ISO 10993-5:2009	Pass (Non-Cytotoxic)
Irritation	ISO 10993-10:2010	Pass (Non-Irritating)
Sensitization	ISO 10993-10:2010	Pass (Non-Sensitizing)

**8.0 Clinical Test Conclusion**

No clinical study implemented for the Medical Protective Masks.

**9.0 Technological Characteristic Comparison Table****Table 3 - General Comparison**

Item	Proposed device	Predicated device	Remark	
Product Code	FXX	FXX	Same	
Regulation No.	21 CFR 878.4040	21 CFR 878.4040	Same	
Class	II	II	Same	
Product name	Medical Protective Masks	Medical Protective Masks	-	
510(k) No.	Pending	K212205	-	
Style(s)	Expanded chamber Longitudinal fold, ear strap, 4 layers	Expanded chamber Longitudinal fold, ear strap, 4 layers	Same	
Intended Use	The Medical Protective Masks is intended to be worn to protect both the patient and healthcare personnel from transfer of microorganisms, body fluids and particulate material. It is intended for use in infection control practices to reduce the potential exposure to blood and body fluids. This is a single use, disposable device(s), provided non sterile.	The Medical Protective Masks is intended to be worn to protect both the patient and healthcare personnel from transfer of microorganisms, body fluids and particulate material. It is intended for use in infection control practices to reduce the potential exposure to blood and body fluids. This is a single use, disposable device(s), provided non sterile.	Same	
OTC use	Yes	Yes	Same	
Composite	Longitudinal fold, 4 layers	Longitudinal fold, 4 layers	Same	
Material	Internal layer	Spun-bond polypropylene	Spun-bond polypropylene	Same
	Middle layer	Melt blown polypropylene	Melt blown polypropylene	Same
		polypropylene non-woven fabric	polypropylene non-woven fabric	Same
	External layer	Spun-bond polypropylene	Spun-bond polypropylene	Same
	Nose piece	PE (polyethylene) with dual-Galvanized wire	PE (polyethylene) with dual-Galvanized wire	Same
	ear strap	Spandex + Polyester	Spandex + Polyester	Same

## 510(k) Summary

Color	Black	White	* Gap 1
Dimension (Length)	16.0cm±0.5cm	16.0cm±0.5cm	Same
Dimension (Width)	11.0cm±0.5cm	11.0cm±0.5cm	Same
Sterility	Non-Sterile	Non-Sterile	Same
Single Use	Yes	Yes	Same
Sterile	No	No	Same
ASTM F2100 Level	Level 2	Level 2	Same
Shelf life	3 years	2 years	Gap 2

\* Gap analysis:

Gap 1: the two devices, which with different colors, are composed with same materials. So the difference does not raise additional questions for safety and effectiveness of device.

Gap 2: the two devices, which with different shelf lives, are composed with same materials and with same production flow. So the difference does not raise additional questions for safety and effectiveness of device.

## 10.0 Conclusion

The conclusions drawn from the comparison and analysis above demonstrate that the proposed device is as safe, as effective, and performs as well as the legally marketed predicated device and raises no new questions of safety or effectiveness. The differences between both devices are insignificant in terms of safety and effectiveness.