



April 23, 2021

Jinhua Jingdi Medical Supplies Co., Ltd  
% Julie Chen  
RA Manager  
Shanghai Mind-link Business Consulting Co., Ltd.  
Room A08, Floor 14th, No 699, Jiaozhou Road, Jingan District  
Shangha, 200040  
China

Re: K210007

Trade/Device Name: Face Mask  
Regulation Number: 21 CFR 878.4040  
Regulation Name: Surgical Apparel  
Regulatory Class: Class II  
Product Code: FXX  
Dated: March 4, 2021  
Received: March 8, 2021

Dear Julie Chen:

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,

Ryan Ortega, PhD  
Acting 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)  
K210007

Device Name  
Face Mask

### Indications for Use (Describe)

The Face Masks are intended to be worn to protect both the patient and healthcare personnel from transfer of microorganisms, body fluids and particulate material. These face masks are intended for use in infection control practices to reduce the potential exposure to blood and body fluids. The Face Masks are single use, disposable devices, 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.

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## 510(K) Summary - K210007

### I. SUBMITTER:

Jinhua Jingdi Medical Supplies Co.,Ltd  
Building 2, Ditian Function, Xiaoshun Town,  
JindongZone, Jinhua City, Zhejiang, China  
Contact Person: Hu Xiaojiang  
Title: Quality Manager  
Tel: +86 13989428215  
Email: xiaojianghu@jhjingdi.com

Submission Correspondent: Julie Chen  
Email: julie.chen@mind-link.net  
Tel:+86 13918045781

Summary prepared: 12/04/2020

### II. DEVICE

Name of Device: Face Mask  
Regulation Number: 21 CFR PART 878.4040  
Common Name: Surgical Mask  
Classification Name: Surgical Mask  
Regulatory Class: II  
Product Code: FXX

### III. PREDICATE DEVICE

Primary predicate device: Surgical Face Masks (K182514)

### IV. REFERENCE DEVICE

Reference device: Disposable Surgical Face Mask (K202491, Model: EL-M02 and EL-L02 Level 2)

## V. DEVICE DESCRIPTION

Face Mask is composed of three layers and is flat-pleated. The mask materials consist of an outer layer (spun-bond polypropylene), a middle layer, between the outer layer and inner layers (melt-blown polypropylene), and an inner layer (spun-bond polypropylene). Each mask contains ear loops to secure the mask over the users' mouth and face and includes a malleable nose piece (Iron wire covered by polypropylene) to provide a firm fit over the nose.

There are two models for Face Mask with different colors and sizes.

For Type A model is in blue, barrier level 2 and size 145mm\*95mm, ear loop type.

For Type B model is in blue, barrier level 2 and size 175mm\*95mm, ear loop type.

## VI. INDICATIONS FOR USE

The Face Masks are intended to be worn to protect both the patient and healthcare personnel from transfer of microorganisms, body fluids and particulate material. These face masks are intended for use in infection control practices to reduce the potential exposure to blood and body fluids. The Face Masks are single use, disposable device, provided non-sterile.

## VII. COMPARISON OF TECHNOLOGICAL CHARACTERISTICS WITH THE PREDICATE DEVICE

The Face Masks are compared with the predicate device (Surgical Face Masks (K182514)). The results are shown below in the Technological Characteristics Comparison Table:

<b>DEVICE</b>	<b>Subject Device Face Mask</b>	<b>Primary Predicate Device Surgical Face Mask (K182514)</b>	<b>Reference Device Disposable Surgical Face Mask (K202491, Level 2)</b>	<b>Remark</b>
<b>Intended Use</b>	The Face Masks are intended to be worn to protect both the patient and healthcare personnel from transfer of microorganisms, body fluids and particulate material. These face masks are intended for use in infection control practices	The surgical face masks are intended to be worn to protect both the patient and healthcare personnel from transfer of microorganisms, body fluids, and particulate material. These face masks are intended for use in	The Disposable Surgical Face Mask are intended to be worn to protect both the patient and healthcare personnel from transfer of microorganisms, body fluids, and particulate material. These face masks are intended for use in infection control practices	Same

	to reduce the potential exposure to blood and body fluids. The Face Masks are single use, disposable device, provided non-sterile.	infection control practices to reduce the potential exposure to blood and body fluids. This is a single-use, disposable device, provided non-sterile.	to reduce the potential exposure to blood and body fluids. The Disposable Surgical Face Masks are single use, disposable devices, provided non-sterile.	
<b>Classification Product Code</b>	FXX	FXX	FXX	Same
<b>Ear Loop Model</b>	Ear Loops	Ear Loops	Ear Loops	Same
<b>Materials</b>				
<b>Outer Facing Layer</b>	Spun-bond polypropylene non-woven fabric	Spun-bond polypropylene	Spun-bond Polypropylene non-woven fabric	Similar Note 1
<b>Middle Layer</b>	Melt-blown polypropylene	Melt blown polypropylene filter	Melt blown polypropylene	Similar Note 1
<b>Inner Facing Layer</b>	Spun-bond polypropylene non-woven fabric	Spun-bond polypropylene	Spun-bond polypropylene non-woven fabric	Similar Note 1
<b>Nose Piece</b>	Iron wire covered polypropylene	Malleable aluminum wire	Malleable iron wire with plastic covering	Similar Note 1
<b>Ear Loops</b>	75%Polyamie 25% Spandex	Polyester	Spandex Elastic cord	Similar Note 1
<b>Design Features</b>				
<b>Color</b>	Blue	White	Blue	Different Note 1
<b>Style</b>	Flat - Pleated	Flat - Pleated	Flat - Pleated	Same
<b>Multiple Layers</b>	3 Layers	3 Layers	3 Layers	Same
<b>Single Use</b>	Single use	Single use	Single use	Same
<b>Sterility</b>				
<b>Sterile</b>	Non-sterile	Non-sterile	Non-sterile	Same
<b>Dimensions</b>				
<b>Length × Width</b>	145×95mm(±5mm) 175×95mm (±5mm)	175×95mm(±10mm)	145×95mm (±5mm) 175×95mm (±5mm)	Different Note 2
<b>Technological Characteristics Product Barrier Specifications Per ASTM F2100 – Meets Level 2</b>				
<b>Fluid Resistance ASTM F1862</b>	32 out of 32 pass at 120mmHg	32 out of 32 pass at 120mmHg	Pass at 120mmHg	Same
<b>Particulate Filtration Efficiency (PFE)</b>	Pass at 99.70%	Pass at 99.88%	Pass at >99.8%	Same

<b>ASTM F2299</b>				
<b>Bacterial Filtration Efficiency (BFE) ASTM F2101</b>	Pass at 99.95%	Pass at 99.6%	Pass at $\geq 99.8\%$	Same
<b>Differential Pressure (Delta P) MIL-M-36954C</b>	Pass at 3.0 mmH <sub>2</sub> O/cm <sup>2</sup>	Pass at 3.0 mmH <sub>2</sub> O/cm <sup>2</sup>	Pass at $< 4.2$ mmH <sub>2</sub> O/cm <sup>2</sup>	Same
<b>Flammability 16 CFR PART 1610</b>	Class 1 Non-Flammable	Class 1 Non-Flammable	Class 1 Non-Flammable	Same
<b>Biocompatibility</b>				
<b>Cytotoxicity</b>	Under the conditions of the study, the subject device extract was determined to be non-cytotoxic.	Under the conditions of the study, the subject device extract was determined to be non-cytotoxic.	Under the conditions of the study, the subject device extract was determined to be non-cytotoxic.	Same
<b>Irritation</b>	Under the conditions of the study, the subject device non-polar and polar extracts were determined to be non-irritating.	Under the conditions of the study, the subject device non-polar and polar extracts were determined to be non-irritating.	Under the conditions of the study, the subject device non-polar and polar extracts were determined to be non-irritating.	Same
<b>Sensitization</b>	Under the conditions of the study, the subject device non-polar and polar extracts were determined to be non-sensitizing.	Under the conditions of the study, the subject device non-polar and polar extracts were determined to be non-sensitizing.	Under the conditions of the study, the subject device non-polar and polar extracts were determined to be non-sensitizing.	Same

### Comparison in Detail(s):

#### Note 1:

Although the material including outer facing layer, middle layer, inner facing layer, nose piece and ear loops, as well as the color of the subject device and the color is different from the predicate device, it meets the requirement of essential performance standard ISO 10993. The differences between the predicate device and subject device will not affect the safety and effectiveness of the subject device.

#### Note 2:

Although Type A of the subject device is smaller than the predicate device, Type A match the dimension with reference device (Model: EL-M02, Level 2), the barrier protection performance of the subject device is same with the barrier protection performance of predicate device and the reference device, which is the Level 2 barrier protection. Therefore, the dimensional differences between the predicate device and the subject device will not affect the safety and effectiveness of

the subject device.

## **VIII. PERFORMANCE DATA**

### Non-Clinical Performance Test Conclusion

Non-clinical tests were conducted to verify that the proposed device met all design specifications was Substantially Equivalent (SE) to the predicate device. The test results demonstrated that the Face Masks complies with the following standards:

- ASTM F2100-19 Standard Specification for Performance of Materials Used in Medical Face Masks
- ASTM F1862 Standard Test Method for Resistance of Medical Face Masks to Penetration by Synthetic Blood (Horizontal Projection of Fixed Volume at a Known Velocity)
- EN 14683:2019+AC2019(E) Annex C
- ASTM F2299 Standard Test Method for Determining the Initial Efficiency of Materials Used in Medical Face Masks to Penetration by Particulates Using Latex Spheres
- ASTM F2101 Standard Method for Evaluating the Bacterial Filtration Efficiency (BFE) of Medical Face Mask Materials, Using a Biological Aerosol of Staphylococcus aureus
- MIL-M- 36954C Military Specification, Mask, Surgical, Disposable
- 16 CFR Part 1610 Standard for the Flammability of Clothing
- ISO10993-1 Biological evaluation of medical devices - Part 1: Evaluation and testing within a risk management process
- ISO10993-5 Biological evaluation of medical devices - Part 5: Tests for in vitro cytotoxicity of medical devices
- ISO10993-10 Biological Evaluation of Medical Devices - Part 10: Tests for Irritation and Skin Sensitization

### Clinical Test Conclusion

No clinical study is included in this submission.

## **IX. CONCLUSION**

The conclusion drawn from the nonclinical tests demonstrates that the Face Mask subject device of this submission, K210007, is as safe, as effective, and performs as well as or better than the legally marketed predicate device Surgical Face Masks (K182514).