June 2, 2021

Hubei Wanli Protective Products Co., Ltd.
% Eva Li
Consultant
Shanghai Sungo Management Consulting Company Limited
Room 1309, Dongfang Building, 1500#Century Ave
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China

Re: K210150
Trade/Device Name: Disposable Medical mask
Regulation Number: 21 CFR 878.4040
Regulation Name: Surgical Apparel
Regulatory Class: Class II
Product Code: FXX
Dated: January 21, 2021
Received: January 21, 2021

Dear Eva Li:

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) 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

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

Indications for Use

Form Approved: OMB No. 0910-0120
Expiration Date: 06/30/2023
See PRA Statement below.

510(k) Number *(if known)*

K210150

Device Name
Disposable Medical Mask

Indications for Use *(Describe)*

The Disposable Medical 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. 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.

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Hubei Wanli Protective Products Co., ltd.
Yuanshi, Ganhe, Xiantao, Hubei, China

K210150

510(K) Summary

A. Applicant

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Date Prepared： April 27, 2021

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B. Device

Trade Name: Disposable Medical Mask

Model	Description
WLM2002	Ear Loops, Flat Pleated, 3 layers, 17.5cm*9.5cm

Regulatory Information
Classification Name: Surgical Face Mask
Classification: Class II
Product code: FXX
Regulation Number: 878.4040
Review Panel: Surgical Apparel

C. Predicate device:

K110455
Kimberly-Clark KC100 Mask
Kimberly-Clark

D. Intended use of the device:

The Disposable Medical 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. This is a single use, disposable device(s), provided non-sterile.

E. Device Description:

The Disposable Medical Masks are single use, three-layer, flat –folded masks with ear loops and nose clip.

The Disposable Medical Masks are manufactured with three layers, the inner and outer layers are made of non-woven Spun-bond polypropylene, and the middle layer is made of melt blown polypropylene filter.

The ear loops are held in place over the users' mouth and nose by two strings welded to the facemask. The ear loops are made of 17cm spandex elastic strings(performance of the spandex elastic: Tensile strength≥100N; Elasticity≥2.8times; Breaking tension≥ 100N)

The nose clip in the layers of facemask is to allow the user to fit the facemask around their nose, which is not touch with the users' skin directly.

The Disposable Medical Masks will be provided in blue. The Disposable Medical Masks are sold non-sterile and are intended to be single use, disposable devices.

F. Comparison with predicate device

Table 1 General Comparison

Device	Proposed Device	Predicate Device	Comparison
Manufacturer	Hubei Wanli Protective Products Co., ltd.	Kimberly-Clark	—
510(K) number	K210150	K110455	—
Model Name	Disposable Medical Mask	Kimberly-Clark KC100 Mask	—
Classification	Class II Device, FXX (21 CFR878.4040)	Class II Device, FXX (21 CFR878.4040)	same
Intend use	The Disposable Medical 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. This is a single use, disposable device(s), provided non-sterile.	The Kimberly-Clark KC100 Procedure Mask(s) is 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 Kimberly-Clark KC100 Procedure Mask(s) is a single use, disposable devices, provided non-sterile.	same
Model	Ear Loops, Flat Pleated, 3 layers	Ear Loops, Tie-On, Flat Pleated, 3 layers	same

Material	Outer facing layer	non-woven Spun-bond polypropylene	Spun-bond polypropylene	same
	Middle layer	Melt blown polypropylene filter	Melt blown polypropylene filter	same
	Inner facing layer	non-woven Spun-bond polypropylene	Spun-bond polypropylene	same
	Ear loops/ties	Spandex elastic	Polyester/lycra knitted	similar
Color		Blue	Variety (include blue)	same
Dimension （length）		175mm±5mm	165±19mm	Similar
Dimension （width）		95 mm±5mm	102±19mm	Similar
OTC use		Yes	Yes	same
Sterility		Non-Sterile	Non-Sterile	same
Use		Single use, Disposable	Single use, Disposable	same
ASTM F2100 Level		Level 2	Level 1	Similar*
Biocompatibility		ISO10993	ISO10993	same

***Similar Discussion：**

The proposed device conducted the test and the pass the Level 3 Acceptance Criteria, the predicate device pass the level 1 Acceptance Criteria. The test and the acceptance is following:

G. Summary of Non-Clinical Performance Testing

Non-clinical tests were conducted to verify that the proposed device met all design specifications as was Substantially Equivalent (SE) to the predicate device. The test results demonstrated that the proposed device complies with the following standards and the requirements stated in the Guidance for Industry and FDA Staff: Surgical Masks – Premarket Notification [510(k)] Submission issued on March 5, 2004:

- ISO 10993-5: 2009 Biological Evaluation of Medical Devices -- Part 5: Tests For In Vitro Cytotoxicity
- ISO 10993-10: 2010 Biological Evaluation of Medical Devices - Part 10: Tests For Irritation And Skin Sensitization
- ASTM F2100, 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, Medical Face Masks—Requirements and Test Methods;
- ASTM F2101, Standard Test Method for Evaluating the Bacterial Filtration Efficiency

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(BFE) Of Medical Face Mask Materials, Using A Biological Aerosol of Staphylococcus Aureus;

- ASTM F2299, Standard test method for determining the initial efficiency of materials used in medical face masks to penetration by particulates using latex spheres;
- 16 CFR 1610, Standard for the Flammability of clothing textiles;

Table 2-performance Testing

Item	Acceptance Criteria (level 2)	Result of Lot2020120501	Result of Lot2020120101	Result of Lot2020120801
Synthetic Blood Performance ASTM F1862	29 out of 32 pass at 120 mmHg	32 out of 32 pass at 120 mmHg	32 out of 32 pass at 120 mmHg	32 out of 32 pass at 120 mmHg
Particulate Filtration Efficiency ASTM F2299	⩾ 98%	⩾ 98%	⩾ 98%	⩾ 98%
Bacterial Filtration Efficiency ASTM F2101-19 EN 14683:2019 Annex B	⩾ 98%	⩾ 98%	⩾ 98%	⩾ 98%
Differential Pressure(Delta P) ASTM F2100-19 EN 14683:2019 Annex C (mmH_2O/cm^2)	< 6.0	< 6.0	< 6.0	< 6.0
Flammability 16 CFR 1610 (IBE=Test Article ignited, but extinguished)	Class 1 (Burn time⩾3.5 seconds)	Class I	Class I	Class I

Table3 Biocompatibility Comparison

Item	**Proposed device**	**Acceptance Criteria**	**Result**
Cytotoxicity	Under the conditions of the study, the device is non-cytotoxic.	Non-Cytotoxic	No Cytotoxic
Irritation	Under the conditions of the study, the device is non-irritating.	Non-Irritating	No irritating
Sensitization	Under the conditions of the study, the device is non-sensitizing	Non-Sensitizing	No Sensitizing

H. Clinical Test Conclusion

No clinical study is included in this submission.

I. Conclusion

Based on the nonclinical tests performed, the subject device is as safe, as effective, and performs as well as the legally marketed predicate device, Kimberly-Clark KC100 Mask cleared under K110455.