# NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Guangzhou Aiyinmei Co., Ltd.
Model Tested: A&F KN95
Date Tested: May 18, 2020

These findings pertain to the Guangzhou Aiyinmei Co., Ltd., model A&F KN95. The packaging and labeling for this product indicates that it meets GB2626-2006 (the Chinese standard for Respiratory Protective Equipment – Non-Powered Air-Purifying Particle Respirator) and EN149:2001+A1:2009 (the European standard for Respiratory Protective Devices – Filtering Half Masks to Protect Against Particles – Requirements, Testing, Marking).

Ten respirators were submitted for evaluation. The samples were tested using a modified version of NIOSH Standard Test Procedure (STP) TEB-APR-STP-0059. This modified assessment plan can be found here.

A certificate of approval was provided with the samples received; however, the authenticity of the claims cannot be validated.

The maximum and minimum filter efficiency was 98.10% and 32.30%, respectively. Six respirators measured more than 95%. Four respirators measured less than 95%.

While the above-listed product classification has similar performance requirements to NIOSH-approved devices, NIOSH does not have knowledge about the sustained manufacturer quality system and product quality control for these products. NIOSH also does not have knowledge about the product's handling and exposures after leaving its manufacturer's control.

In addition, this product is an ear loop design. Currently, there are no NIOSH-approved products with ear loops; NIOSH-approved N95s have head bands. Furthermore, limited assessment of ear loop designs, indicate difficulty achieving a proper fit. While filter efficiency shows how well the filter media performs, users must ensure a proper fit is achieved.

**This assessment is not a part of the NIOSH respirator approval process and will in no way lead to or preclude NIOSH approval through the official approval process.** This assessment was developed as an assessment of the filter efficiency for those respirator's represented as certified by an international certification authority, other than NIOSH, to support the availability of respiratory protection to US healthcare workers due to the respirator shortage associated with COVID-19. Only particulate filter efficiency was assessed.

The results provided in this letter are specific to the subset of samples that were provided to NPPTL for evaluation.

These results will be used to update the CDC guidance for Crisis Capacity Strategies (during known shortages).

# Evaluation of International Respirators

NPPTL
National Personal Protective Technology Laboratory

**Test:** Modified TEB-APR-STP-0059

**Date Tested:** May 18, 2020

**Report Prepared:** May 18, 2020

**Manufacturer:** Guangzhou Aiyinmei Co., Ltd.

**Item Tested:** A&F KN95

**Country of Certification:** China (GB2626-2006, EN149:2001+A1:2009)

Pictures have been added to the end of this report.

| Filter | Flow Rate (Lpm) | Initial Filter Resistance ($mmH_2O$) | Initial Percent Leakage (%) | Maximum Percent Leakage (%) | Filter Efficiency |
|---|---|---|---|---|---|
| **1** | 85 | 21.6 | 4.92 | 4.92 | 95.08 |
| **2** | 85 | 8.5 | 60.4 | 63.4 | 36.60 |
| **3** | 85 | 8.9 | 66.3 | 66.3 | 33.70 |
| **4** | 85 | 8.9 | 67.7 | 67.7 | 32.30 |
| **5** | 85 | 9.5 | 64.2 | 64.2 | 35.80 |
| **6** | 85 | 17.5 | 2.53 | 2.53 | 97.47 |
| **7** | 85 | 18.2 | 1.90 | 1.90 | 98.10 |
| **8** | 85 | 19.9 | 2.81 | 2.81 | 97.19 |
| **9** | 85 | 17.8 | 2.73 | 2.73 | 97.27 |
| **10** | 85 | 19.6 | 2.85 | 2.85 | 97.15 |
| **Minimum Filter Efficiency: 32.30** | | | **Maximum Filter Efficiency: 98.10** | | |

- The test method utilized in this assessment is not the NIOSH standard test procedure that is used for certification of respirators. Respirators assessed to this modified test plan do not meet the requirements of STP-0059, and therefore cannot be considered equivalent to N95 respirators that were tested to STP-0059.
- Respirators tested may not be representative of all respirators with the same certification mark. NIOSH has no control over suppliers and distributors of respirators certified by other national or international parties.
- This assessment is not a confirmation that it conforms with any or all of its specifications in accordance with its certification mark.
- This assessment was not a part of the NIOSH approval program. These results do not imply nor preclude a future approval through the NIOSH respirator approval program.

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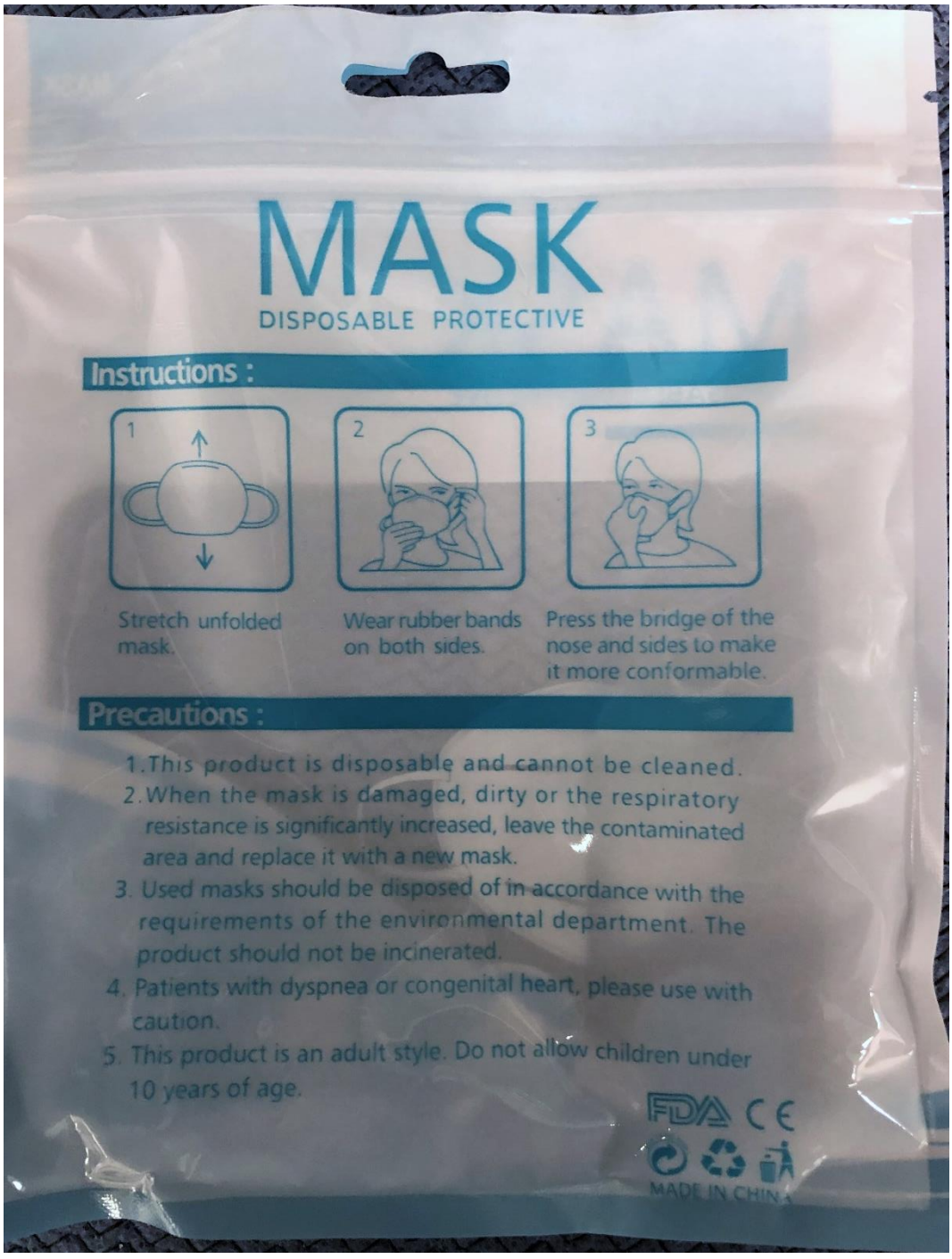
MASK
DISPOSABLE PROTECTIVE
Instructions :
1
2
3
Stretch unfolded mask.
Wear rubber bands on both sides.
Press the bridge of the nose and sides to make it more conformable.
Precautions :
1.This product is disposable and cannot be cleaned.
2.When the mask is damaged, dirty or the respiratory resistance is significantly increased, leave the contaminated area and replace it with a new mask.
3. Used masks should be disposed of in accordance with the requirements of the environmental department. The product should not be incinerated.
4. Patients with dyspnea or congenital heart, please use with caution.
5. This product is an adult style. Do not allow children under 10 years of age.
FDA CE
MADE IN CHINA

# A&F KN95

KN95 PROTECTIVE MASK

BACTERIA AND PARTICULATE FILTERING EFFICIENCY≥ 95 %

Product performance:

1. Using superfine fiber electrostatic melt-blown cloth composite ES hot air cotton. PP spunbond non-woven fabric,Form a four-layer filter layer to filter harmful substances more effectively, in line with the national standard KN95 level.
2. Design 3D three-dimensional shape according to human face engineering, while ensuring closeness The breathing volume of the mask is increased, greatly improving the breathability and making breathing more comfortable.

How to wear:

Open the mask with the bridge of the nose on top. After wearing, press the bridge of the nose tightly.

Use range:

Suitable for protection against harmful particulate matter such as dust, PM2.5 haze, particulates, influenza, bacterial droplets, etc.

This product has wind and cold protection

Product name: A&F self-priming filter anti-particulate respirator disposable

Executive standard: EN 149:2001+A1:2009

Sanitary standard: GB15979-2002

Product specifications: 10 pcs / pack

Product model: KN95

Production date: see the certificate of validity: 2 years

Recommended storage conditions: humidity <80% non-corrosive gas and well-ventilated clean room

Note that before use, the wearer must read and understand the instructions for usePlease save these instructions for reference

Manufacturer: Guangzhou Aiyinmei Co., Ltd.

Address: No.27 Fuyuan Road, Huadu District, Guangzhou

Precautions:

1. To ensure the cleanness of the mask, avoid touching the inside of the mask with your hands.
2. Immediately after wearing a dust mask, wear a "tight check to ensure that the mask is in the correct position
3. Before wearing a mask, you should wash your hands.If you need to be exposed to dusty environment, you should always wear a mask.
4. When you feel the breathing resistance increases significantly, or when the mask becomes dirty and damaged, the mask should be replaced as soon as possible
5. This mask is not washable. Washing will damage the structure of the filter material, cause penetration, and damage the filtering performance of the electrostatic filter material.
6. Unused masks should be stored in a clean environment. Protect the masks from damage, dirt, dust and sunlight.Direct. High temperature or harmful chemical pollution. When storing the mask, avoid deformation of the mask.
7. Masks cannot be sterilized in a microwave oven (non-sterile)

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KN95

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