NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Changshu City Hengyun Nonwoven Products Co., Ltd.
Model Tested: KN95 Respirator Masks
Date Tested: April 30, 2020

These findings pertain to the Changshu City Hengyun Nonwoven Products Co., Ltd., KN95 Respirator Masks. The packaging for this product indicates that it meets GB2626-2006 (the Chinese standard for Respiratory Protective Equipment – Non-Powered Air-Purifying Particle Respirator).

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.

No certificate of approval was provided with the samples received; therefore, the authenticity of the claims cannot be validated.

The maximum and minimum filter efficiency observed was 97.29% and 88.53%, respectively. Seven respirators measured more than 95%. Three 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).
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Evaluation of International Respirators

Test: Modified TEB-APR-STP-0059
Date Tested: April 30, 2020
Report Prepared: May 4, 2020
Manufacturer: Changshu City Hengyun Nonwoven Products Co., Ltd.
Item Tested: KN95 Respirator Masks
Country of Certification: China (GB2626-2006)

<table>
<thead>
<tr>
<th>Filter</th>
<th>Flow Rate (LPM)</th>
<th>Initial Filter Resistance (mmH₂O)</th>
<th>Initial Percent Leakage (%)</th>
<th>Maximum Percent Leakage (%)</th>
<th>Filter Efficiency (%)</th>
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<tbody>
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<td>88.53</td>
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</tbody>
</table>

Minimum Filter Efficiency: 88.53  Maximum Filter Efficiency: 97.29

- 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.
DISPOSABLE KN95 Non-Surgical / Non-Medical FACE MASK

10 pieces

Non-Surgical / Non-Medical
4 Layer Construction
Protection Against Air Pollutants

Part# LPHP003 ASIN B086J95FBD
4 Layer Disposable Mask-10 Pack

Made in China
NPPTL COVID-19 Response: International Respirator Assessment

Instruction on KN95 Self-Priming Filter Type Anti-particulate Respirator Masks

**KN95 Respirator Masks**
4-layer filters

(Non-sterile) 20pcs/box

- **Item**: KN95 Respirator Masks
- **Specification & Size**: WCL-0075 13.5cm*12.5cm*13cm
- **Composition**: Main mask, nose clip and ear loop. The main mask is made of 4 layer filters, non-sterile and disposable.
- **Material**: PP nonwoven, Melt-blown fabric
- **Application**: Effectively filter PM2.5, bacteria, virus, dust and smoke
- **Operative Standard**: GB2626-2006 Respiratory Protective Equipment—Non-powered air-purifying particle respirator
- **Restriction**: None

**HOW TO WEAR A MASK**
1. Stretch a mask, and check the integrity of its front surface.
2. Position the mask under your chin with the nose-piece up.
3. Extend the mask to cover your mouth and nose, loop the straps over your ears and adjust them to a comfortable state.
4. Use forefingers and middle fingers of both hands to mold the nose-piece to the shape of your nose by pushing downward and inward.
5. Place both hands completely over the mask, and perform positive and negative pressure tests to keep your mask from leaking.

**Product Certificate**

- **Product Name**: KN95 Respirator Masks
- **Specification**: 13.5cm*12.5cm*13cm
- **Manufacture Date**: 2020/3
- **Inspector**: Inspector 002
- **Manufacturer**: Changshu City Hengyun Nonwoven Products Co. Ltd.
- **Address**: Wengjiazhuan Industrial Park, Shanghuzhezhen, Changshu City, Jiangsu Province, China.

This product has been tested and proved to comply with the required quality standards, and therefore it has been approved to leave the factory.
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