NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Lanshan Shendun Technology Co., LTD
Model Tested: SD-KN95
Date Tested: August 7, 2020

These findings pertain to the Lanshan Shendun Technology Co., LTD, Model SD-KN95. 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 was 99.87% and 99.37%, respectively. No 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 respirators 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-STRP-0059  
**Date Tested:** August 7, 2020  
**Report Prepared:** August 7, 2020  
**Manufacturer:** Lanshan Shendun Technology Co., LTD  
**Item Tested:** SD-KN95  
**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>
<tr>
<td>1</td>
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<td>10</td>
<td>85</td>
<td>19.4</td>
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</table>

Minimum Filter Efficiency: 99.37%  
Maximum Filter Efficiency: 99.87%

- 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.
NPPTL COVID-19 Response: International Respirator Assessment

**Mask (KN95 Non-Medical)**

**Instructions**
1. The user shall receive necessary training before use and wear it in the correct way.
2. The product can only be used in a ventilated place with sufficient oxygen.
3. If the mask is blocked and the difficulty breathing or is damaged, please discard the mask or replace it.
4. If breathing is difficult or unpleasant while wearing a mask, leave the workplace immediately and breathe fresh air.

**Important Information**
1. It is not recommended to use this product when oxygen content is low, air pollution is serious or when sleeping.
2. Use with caution on patients with asthma and other respiratory diseases.
3. Please use the mask correctly and do not abuse it.
4. The storage temperature is 0°C-30°C and the relative humidity is lower than 80%.

**How to wear**
1. Open the mask. Hold the ear loop while the nose clip is facing the direction.
2. Place the nose clip at the top of the mask under your nose and the nose clip bridge of your nose.
3. Pull the ear loop behind the ear.
4. Using both hands, mold metal nose piece contouredly to shape of the nose that the nose piece using one hand may result in less effective respiratory protection.

**Filtering effect**: ≥95%
- Three-dimensional
- Non-woven fabric
- Bridge bar adjustable
- Suspension filter material

**Name**: ZHANG [Name]
**Model**: Lamdown [Model]
**Certificate**: Disposable, no breathing valve
**Quality**: 150pcs/bag
**Shelf life**: 1 years
**Expiration date**: See the seal
**Tel**: 077-6726, 5999789
**Address**: LANSHAN SHENDUN TECHNOLOGY CO., LTD.
**Address**: LANSHAN COUNTY, HUNAN PROVINCE

**MTT-2020-346**
Instructions
1. The user shall receive necessary training before use and wear it in the correct way.
2. This product can only be used in a ventilated place with sufficient oxygen.
3. If the mask is blocked and has difficulty breathing or is damaged, please discard the mask or replace it.
4. If breathing is difficult or unpleasant while wearing a mask, leave the workplace immediately and breathe fresh air.

Important Information
1. It is not recommended to use this product when oxygen content is low, air pollution is serious or when sleeping.
2. Use with caution on patients with asthma and other respiratory diseases.
3. Please use the mask correctly and do not abuse it.
4. The storage temperature is -20°C-30°C, and the relative humidity is lower than 80%.

How to wear
1. Open the mask. Hold the ear strips while the nose clip is facing the outside.
2. Position the bottom of the mask under your chin and the nose clip against bridge of your nose.
3. Pull the ear straps behind the ear.
4. Using both hands, mold metal nose piece comfortably to shape of nose. Pinch the nose piece using one hand may result in less effective respirator performance.

Name: Mask (Kn95 Non-medical)
Model: SD-KN95
Category: Disposable, no breathing valve
Standard: GB2626-2006
Quantity: 10pcs/bag

Shelf life: 1 years
Production date: See the seal
Tel: 0746-2999789
Manufacturer: LANSHAN SHENDUN Technology Co., Ltd
Address: No.5 leather industrial park, Lanzhan county, Hunan province
<table>
<thead>
<tr>
<th>产品名称</th>
<th>口罩（KN95非医用）</th>
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<tbody>
<tr>
<td>PRODUCT NAME</td>
<td>MASK (KN95 NON-MEDICAL)</td>
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<tr>
<td>产品型号</td>
<td>SD-KN95</td>
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<td>PRODUCT MODEL</td>
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<td>产品规格</td>
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<tr>
<td>材质</td>
<td>熔喷布28% 无纺布72% 28%MELT BLOWN CLOTH 72%NON-WOVEN</td>
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<td>TEXTURE OF MATERIAL</td>
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<td>执行标准</td>
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<td>STANDARD</td>
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<tr>
<td>制造商</td>
<td>蓝山县神盾科技有限公司</td>
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<tr>
<td>MANUFACTURER</td>
<td>LANSHAN SHENDUN TECHNOLOGY CO., LTD</td>
</tr>
<tr>
<td>地址</td>
<td>湖南省蓝山县湘江源皮具产业园5号</td>
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<tr>
<td>ADDRESS</td>
<td>NO.5 LEATHER INDUSTRIAL PARK, LANSHAN COUNTY, HUNAN PROVINCE</td>
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<tr>
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</tbody>
</table>
Please read the instructions carefully

[Product Name] SD-KN95 (non-sterile type)
[Model and specifications] Ear-trap mask, takes 10.5cmx15.5cm as specification
[Product composition] The product is composed of a mask body, a nose bridge clip, and a mask band. The outer and inner layers are made of non-stick nonwoven fabric, and the filter layer is made of polypropylene melt-blown fabric. Non-sterile product supply.
[Scope of application] Applicable to the health care of the wearer in the general environment without the risk of body fluids and splashing.
[Performance structure]
1. The appearance of the mask should be neat and intact, and there should be no holes or stains on the surface.
2. After wearing the mask, it should cover the mouth, nose and jaw of the wearer. The mask should meet the design size. The maximum deviation should be no more than and less than 5%.
3. Nose clips must be provided on the mask. The nose clips can be made of bendable plastic material and the length should be no less than 8.5cm.
4. The mask band should be easy to wear and take, and the breaking strength at the connection point between each mask band and the mask body should be no less than 10N.
5. The particle filtration efficiency of the mask should be no less than 95%.
[Contraindications] None
[Precautions] 1. Please choose aseptic or non-sterile products according to the needs of your own use. 2. The longest use time of this product is 72H, and the filtration efficiency will gradually decrease with time going by. After use, it should be processed according to the requirements of hospitals and environmental protection departments.
3. Please check whether the packaging is intact before use, if the packaging or mask is damaged, do not use. Confirm the external packaging mark, production date, and validity period before using it, and use it within the validity period. 4. Use with caution if you are allergic to non-woven fabrics. 5. If there is a significant increase in respiratory resistance during use (when breathing is difficult), the mask is damaged; or the mask is contaminated (when contaminated with foreign substances such as blood stains and droplets), it should be replaced in time.
[Instructions] Open the package and take out the mask, check whether the mask is intact. The convex side faces outwards, the concave side faces inwards, and the side with the nose clip is facing upwards. There is a silicone adjustment buckle and auxiliary strip in the package. First fold the auxiliary strip through the ear strap rope and then insert the silicone adjustment buckle into the ear strap rope. Hang the ear strap to the ear, adjust the silicone adjustment buckle to the appropriate position (the silicone adjustment buckle adjusts the ear strap to within 17.5cm for the best air tightness). Gently press the nose clip to fit the nose bridge, and then press the nose clip to adjust the lower end of the mask to the jaw. Adjust as comfortably as possible, avoid touching the inside of the mask with your hands, place the mask on the face, and adjust it to the appropriate position.
[Storage conditions] Store it in a dry, ventilated, non-corrosive gas environment, away from fire and flammable materials.
[Transportation and storage] It should be protected from heavy pressure, direct sunlight and rain and snow.
[Packaging] 10 pcs/bag. For specific packaging specifications, please refer to product label or outer packaging.
[Production date] refer to the outer packaging
[Product validity period] 1 year
[Manufacturer] LANSHAN SHENDUN Technology Co., Ltd
[Address] No.5 leather industrial park, Lanzhou County, Hunan Province
[Contact number] 0746-2999789
[Executive Standard] GB2626-2006
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