NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Guangzhou Nan Qi Xing Nonwoven Co., Ltd.
Model Tested: KN-1
Date Tested: January 21, 2020

These findings pertain to the Guangzhou Nan Qi Xing Nonwoven Co., Ltd., model KN-1. The packaging and labeling for this product indicate that it meets GB2626-2006 (the Chinese standard for Respiratory Protective Equipment – Non-Powered Air-Purifying Particle Respirator).

Thirty respirators were submitted for evaluation. The respirators were sampled into groups of ten 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 99.25% and 95.40%, respectively. All thirty respirators measured more 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).

Evaluation of International Respirators

NPPTL
National Personal Protective Technology Laboratory

Test: Modified TEB-APR-STP-0059

Date Tested: January 21, 2021

Report Prepared: January 21, 2021

Manufacturer: Guangzhou Nan Qi Xing Nonwoven Co., Ltd.

Item Tested: KN-1

Country of Certification: China (GB2626-2006)

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	14.0	2.73	2.82	97.18
2	85	13.5	3.73	3.73	96.27
3	85	11.9	1.92	1.92	98.08
4	85	16.6	2.24	2.24	97.76
5	85	12.1	4.60	4.60	95.40
6	85	16.9	1.54	1.54	98.46
7	85	15.3	3.34	3.34	96.66
8	85	15.7	3.36	3.36	96.64
9	85	15.8	2.62	2.62	97.38
10	85	13.4	3.65	3.65	96.35
Minimum Filter Efficiency: 95.40%			**Maximum Filter Efficiency: 98.46%**		

- 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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Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH_2O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
11	85	17.0	3.55	3.55	96.45
12	85	15.4	2.24	2.24	97.76
13	85	16.3	2.75	2.75	97.25
14	85	16.9	3.74	3.74	96.26
15	85	15.2	3.24	3.24	96.76
16	85	15.0	3.10	3.10	96.90
17	85	20.0	2.10	2.10	97.90
18	85	14.5	3.13	3.13	96.87
19	85	16.1	2.35	2.35	97.65
20	85	20.6	0.75	0.75	99.25
Minimum Filter Efficiency: 96.26%			**Maximum Filter Efficiency: 99.25%**		

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Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH_2O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
21	85	10.7	2.89	2.89	97.11
22	85	11.9	2.74	2.74	97.26
23	85	12.1	2.51	2.51	97.49
24	85	11.7	2.26	2.26	97.74
25	85	10.1	1.29	1.29	98.71
26	85	13.1	2.85	2.85	97.15
27	85	11.5	2.31	2.31	97.69
28	85	12.6	2.57	2.57	97.43
29	85	11.8	2.75	2.75	97.25
30	85	14.5	1.34	1.34	98.66
Minimum Filter Efficiency: 97.11%			**Maximum Filter Efficiency: 98.71%**		

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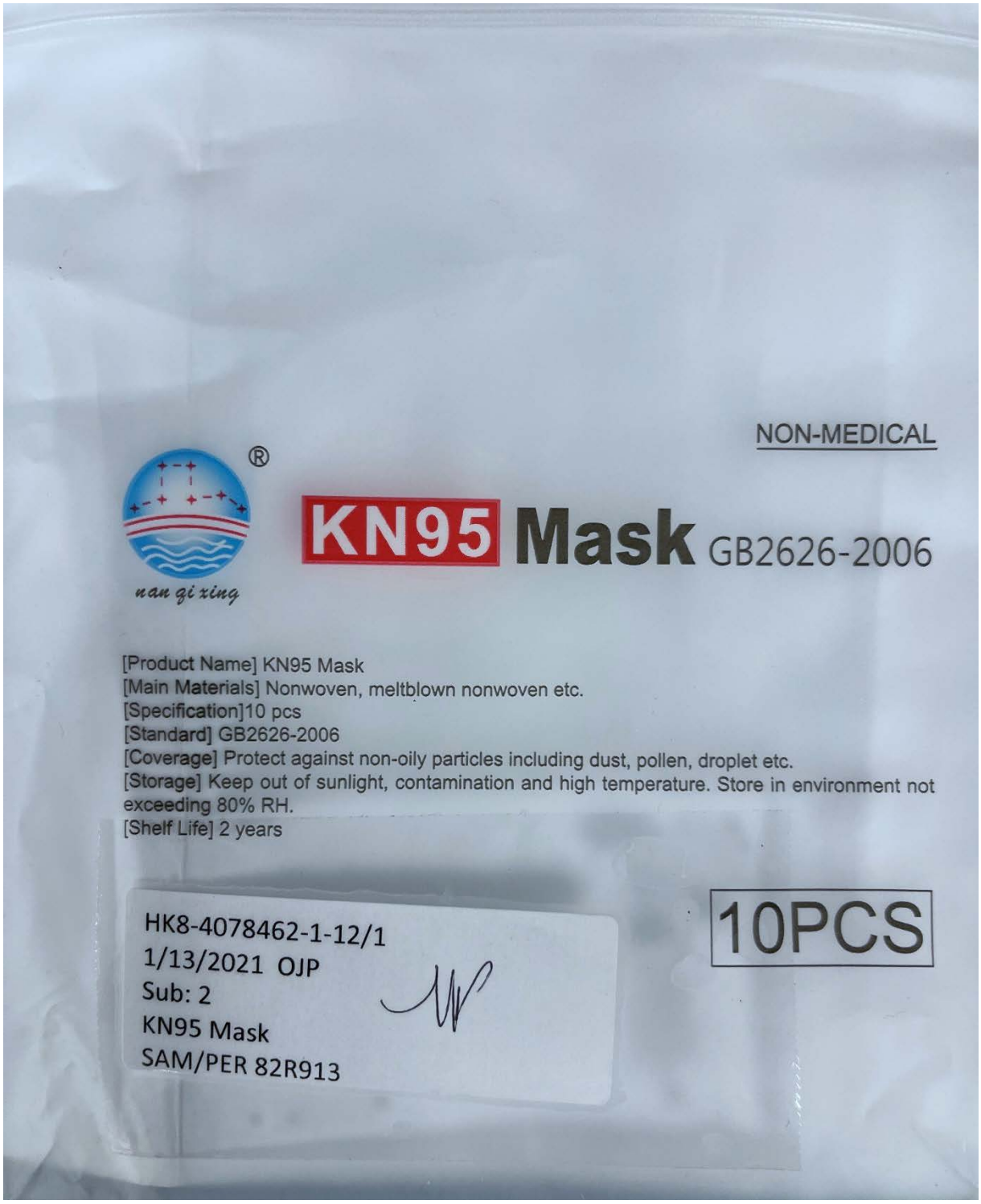

NON-MEDICAL
nan qi xing
KN95 Mask GB2626-2006
[Product Name] KN95 Mask
[Main Materials] Nonwoven, meltblown nonwoven etc.
[Specification]10 pcs
[Standard] GB2626-2006
[Coverage] Protect against non-oily particles including dust, pollen, droplet etc.
[Storage] Keep out of sunlight, contamination and high temperature. Store in environment not exceeding 80% RH.
[Shelf Life] 2 years
HK8-4078462-1-12/1
1/13/2021 OJP
Sub: 2
KN95 Mask
SAM/PER 82R913
10PCS

KN95 Mask

GB2626-2006

Instructions

1.Open the mask to make the nosepiece at the top, and pull the ear straps with both hands.
2.Position the mask under your chin and completely cover your nose and mouth. Pull the ear straps behind your ears and adjust them until it feels comfortable.
3.Use two hands to mold the nosepiece to the shape of your nose by pushing inward while moving your fingertips down both sides of the nosepiece.
4.Cover the mask with both hands and exhale. If air leaks out around nosepiece, pinch the nosepiece to the shape of your nose; if air leaks around the mask edges, readjust the position of ear straps to make certain mask edges fit closely against the face.

WARNING:
Mold the nosepiece with one hand may result less effective mask performance.
If mask becomes damaged or breathing becomes difficult, leave the contaminated area immediately and replace the mask.

Do not use if package is damaged.
Please follow the instructions.
Batch Number: 20200405
Production Date: See inner certificate

Manufacturer: Guangzhou Nan Qi Xing Nonwoven Co.,Ltd.
Address: Wenbian Village, Shiji Town, Panyu District, Guangzhou City, Guangdong Province, China
Tel: 0086 020-3551 3112 / 3551 3262
MADE IN CHINA.

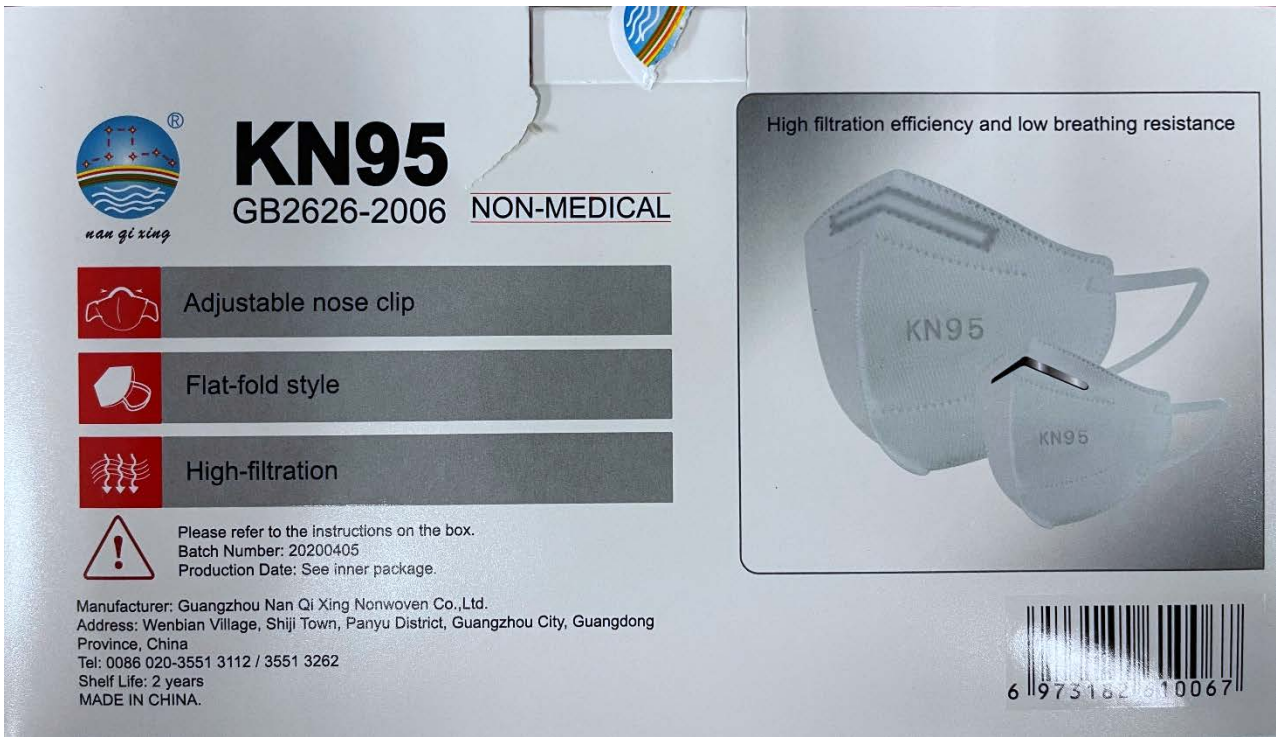
6 973182 610043

合格证
Certificate of Conformity

产品名:KN95口罩（非医用）
Product Name: KN95 Mask（non-medical）
型号：KN-1
Model Number：KN-1
数量：10只/包
Quantity: 10pcs/bag
主要成分：42.5%无纺布，29%熔喷布，28.5%热风棉
Materials: 42.5% PP nonwoven,29% Meltblown nonwoven,
28.5% Thermal bonded nonwoven
执行标准：GB2626-2006
Standard: GB2626-2006
生产批号：20200405
Batch Number: 20200405
生产日期：20200501
Production Date: 20200501
有效期：2年
Shelf Life: 2 years
质检员：05
Inspector: 05
生产商：广州市南柒星无纺布有限公司
Manufacturer: Guangzhou Nan Qi Xing Nonwoven Co.,Ltd.
地址：广州市番禺区石基镇文边村工业园
Address: Wenbian Village, Shiji Town, Panyu District,
Guangzhou City, Guangdong Province, China
联系电话：0086 20-35513112/35513262
Tel:0086 20-35513112/35513262

广州市南柒星无纺布有限公司
检验合格
检 05


MIT-2021-08
50
PCS
NON-MEDICAL
Mask
GB2626-2006
nan qi xing
Adjustable nose clip
Flat-fold style
High-filtration
KN95
High filtration efficiency and low breathing resistance
KN95
KN95


KN95
GB2626-2006
NON-MEDICAL
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Adjustable nose clip
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KN95
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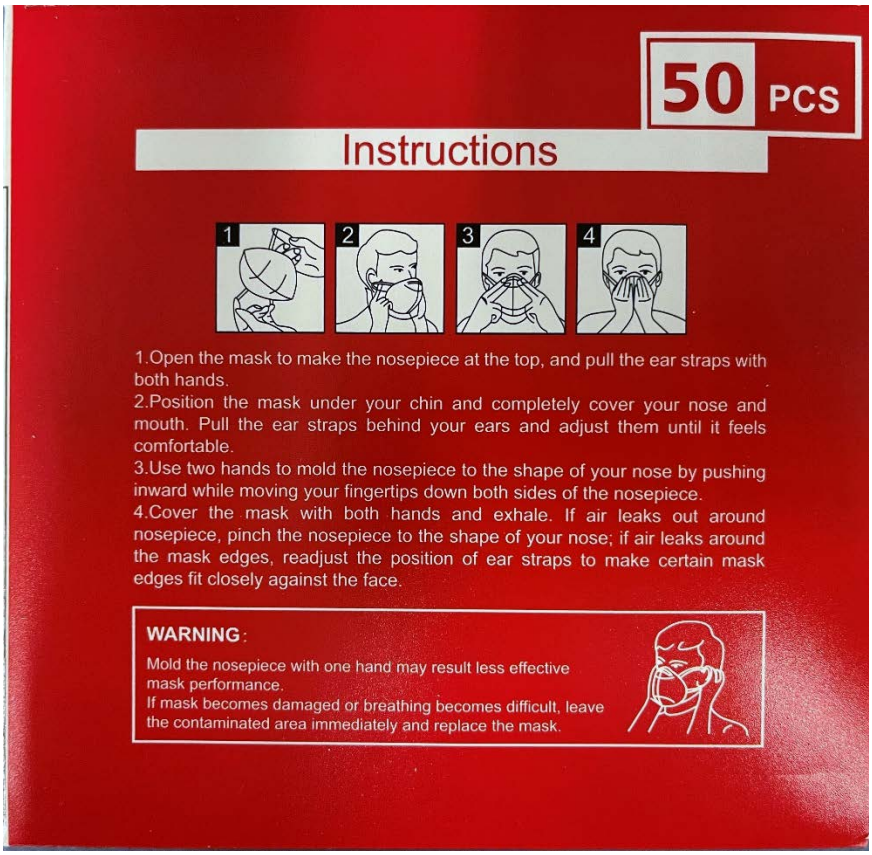
Tel: 0086 020-3551 3112 / 3551 3262
Shelf Life: 2 years
MADE IN CHINA.


50 PCS
Instructions
1
2
3
4
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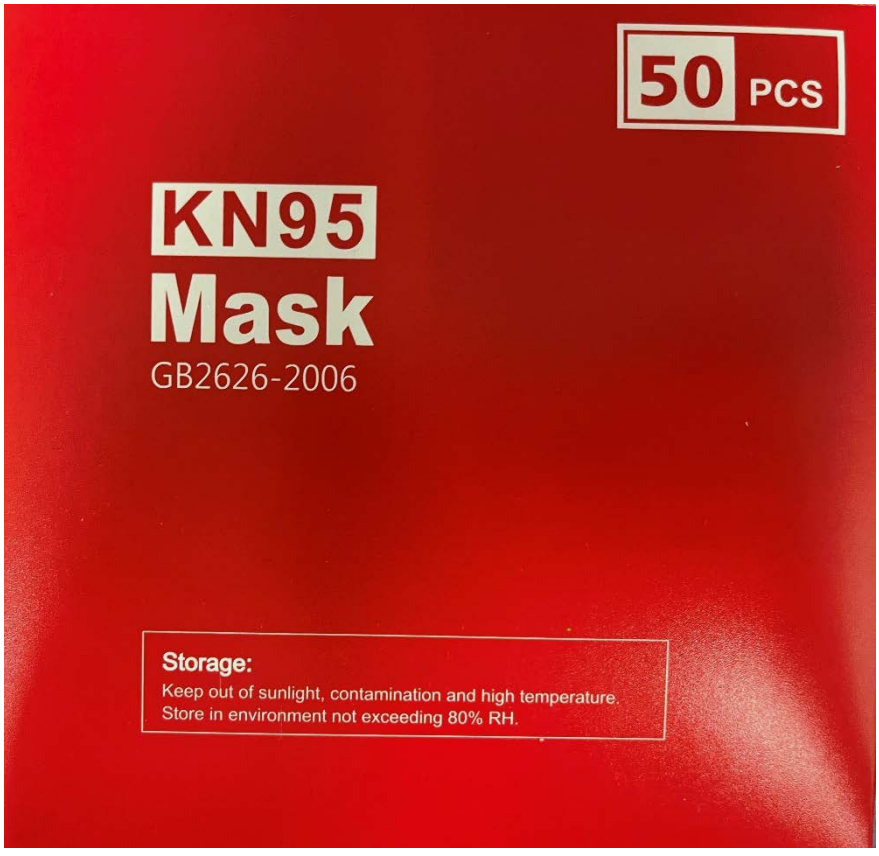
50 PCS
KN95
Mask
GB2626-2006
Storage:
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Store in environment not exceeding 80% RH.


nan qi xing
KN95
GB2626-2006


KN95
GB2626-2006

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