

NPPTL COVID-19 Response: International Respirator Assessment

Manufacturer: Shenzhen ZR Alvarza Health Care Ltd.

Model Tested: KN2003S

Date Tested: April 16, 2021

These findings pertain to the Shenzhen ZR Alvarza Health Care Ltd., model KN2003S. The packaging for this product indicates that it meets GB2626-2019 (the Chinese standard for Respiratory Protective Equipment – Non-Powered Air-Purifying Particle Respirator).

Thirty respirators were submitted for evaluation. The samples were tested using the 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 99.69% and 99.18%, respectively. All thirty respirators measured more than 95% filter efficiency.

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

Test: Modified TEB-APR-STP-0059

Date Tested: April 16, 2021

Report Prepared: April 19, 2021

Manufacturer: Shenzhen ZR Alvarza Health Care Ltd.

Item Tested: KN2003S

Country of Certification: China (GB2626-2019)

Pictures have been added to the end of this report.

Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
1	85	12.7	0.50	0.50	99.50
2	85	12.7	0.49	0.49	99.51
3	85	13.5	0.54	0.54	99.46
4	85	12.9	0.58	0.58	99.42
5	85	12.9	0.46	0.46	99.54
6	85	13.4	0.48	0.48	99.52
7	85	13.0	0.49	0.49	99.51
8	85	14.3	0.52	0.52	99.48
9	85	13.7	0.55	0.55	99.45
10	85	13.4	0.43	0.43	99.57
Minimum Filter Efficiency: 99.42%			Maximum Filter Efficiency: 99.57%		

- 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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Manufacturer: Shenzhen ZR Alvarza Health Care Ltd.

Item Tested: KN2003S

Country of Certification: China (GB2626-2019)

Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
11	85	13.7	0.58	0.58	99.42
12	85	14.6	0.66	0.66	99.34
13	85	14.9	0.45	0.45	99.55
14	85	13.2	0.57	0.57	99.43
15	85	14.1	0.65	0.65	99.35
16	85	14.0	0.58	0.58	99.42
17	85	13.3	0.52	0.52	99.48
18	85	14.8	0.65	0.65	99.35
19	85	13.8	0.68	0.68	99.32
20	85	13.4	0.50	0.50	99.50
Minimum Filter Efficiency: 99.32%			Maximum Filter Efficiency: 99.55%		

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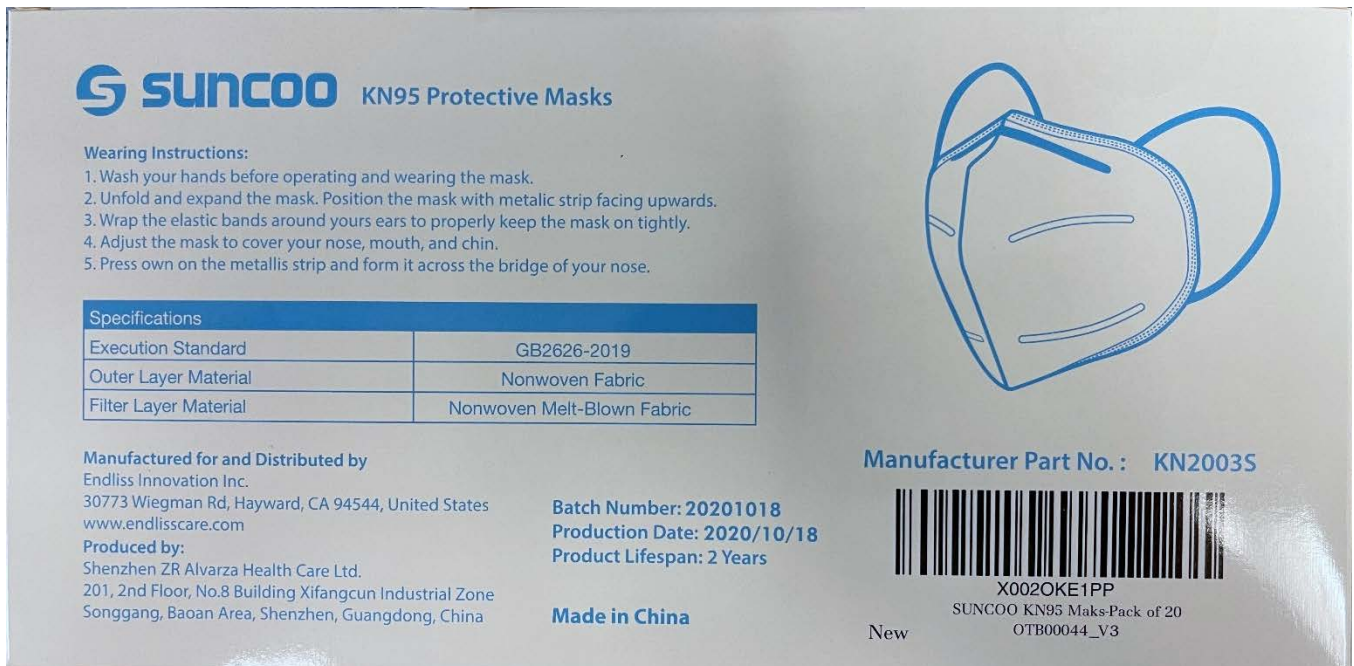
Manufacturer: Shenzhen ZR Alvarza Health Care Ltd.

Item Tested: KN2003S

Country of Certification: China (GB2626-2019)

Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH ₂ O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
21	85	15.6	0.55	0.55	99.45
22	85	13.5	0.64	0.64	99.36
23	85	14.0	0.43	0.43	99.57
24	85	13.4	0.75	0.75	99.25
25	85	13.4	0.48	0.49	99.51
26	85	18.4	0.82	0.82	99.18
27	85	14.6	0.62	0.62	99.38
28	85	17.3	0.31	0.31	99.69
29	85	14.4	0.58	0.58	99.42
30	85	14.6	0.63	0.63	99.37
Minimum Filter Efficiency: 99.18%			Maximum Filter Efficiency: 99.69%		

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QUALIFIED CERTIFICATE 合格证	
Brand 品牌	Suncoo
Major Materials 主要材料	Non-Woven Fabric, Melt Blown Fabric, Hot Air Cotton 无纺布, 熔喷布, 热风棉
Product Name 产品名称	KN95 Protective Mask (Non-Medical) KN95 防护口罩 (非医用)
Product Number 产品型号	KN2003S
Executive Standards 执行标准	GB2626-2019
Product Specification 产品规格	10.5X15.5CM (±0.2CM)
Quantity 数量	20PCS/BOX
Batch NO. 生产批号	20201018
Production Date 生产日期	2020/10/18
Preservative Period 有效期	2 Years (2年)
Inspection Result 检测结果	The Product Is Qualified And Approved To Leave The Factory 产品合格, 准予出厂
<p>厂名: 深圳市众然健康科技有限公司 Manufacturer: Shenzhen ZR Alvarza Health Care Ltd. 厂址: 深圳宝安松岗西坊村工业区上振美路21号201 Address: 201, No. 21, Shangbaomei Road, Xifangcun Industrial Zone Songgang, Baoan Area, Shenzhen 518100, Guangdong, China</p>	
<p>美国代理商 (Manufactured for): Endless Innovation Inc. 地址 (Address): 30773 Wiegman Rd, Hayward, CA 94541, United States</p>	



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