

**TEST REPORT**

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 TEST REPORT No. : EL/O/2006368-A  
 SAMPLE COLLECTED BY : Self  
 SAMPLE DESCRIPTION : N95 Mask

DATE OF ISSUE: 25/06/2020

BRAND NAME:NM	DECLARED VALUE : ND		
QUANTITY	BATCH NO.	DOM	DOE
50 Pieces	---	---	---
DATE OF RECEIPT	DATE OF START ANALYSIS : 23/06/2020		
23/06/2020	DATE OF COMPLETION OF ANALYSIS : 25/06/2020		

**TEST NAME:**

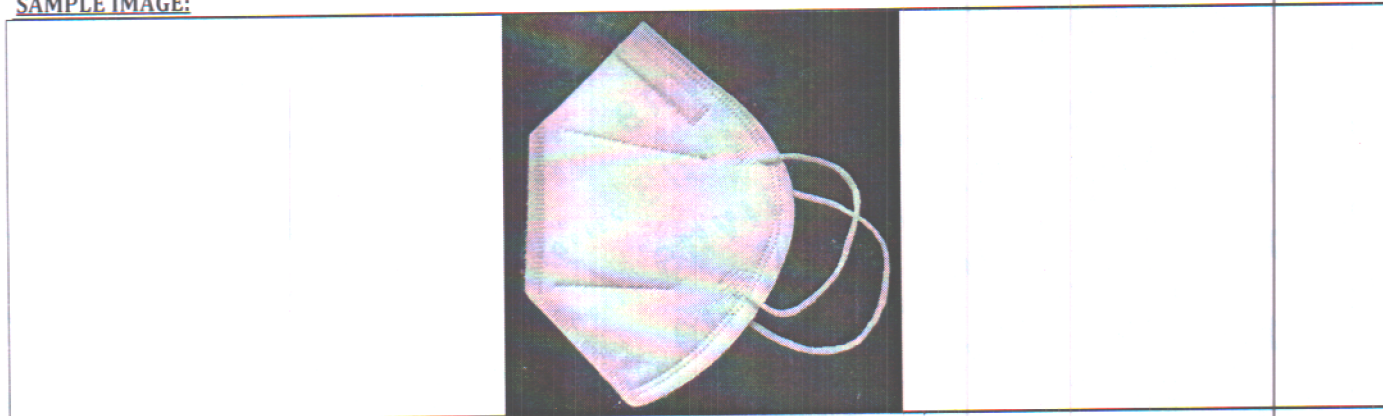
 Bacterial Filtration Efficiency ASTM F 2101-Standard Test Method for Evaluating the Bacterial Filtration Efficiency (BFE) of Medical Face Mask Material, Using a Biological Aerosol of *Staphylococcus aureus*
**TEST CONDITION:**

 Inoculums size: *Staphylococcus aureus* ATCC 6538=5 X 10<sup>5</sup> CFU/ml  
 Media Used: Tryptic soya agar  
 Dilution medium used: Peptone water  
 Incubation conditions: 37 °C for 24h

**TEST RESULTS**

SI No.	TESTS/PARAMETERS	Described by the customer : Face Mask
1.	Area of test specimen	Facemask
2.	Sample exposure side	Face side
3.	Flow rate of aerosol	28.5 L/min.
4.	Mean particle size of challenging aerosol	3.0 ± 0.3 micron
5.	Average plate count of positive control	3420
6.	Average plate count of negative control	0
7.	BFE of test specification %	98.2
8.	PFE (Particle Filtration Efficiency) of test Specification %	99.4

 Result: The sample showed 98.2% bacterial filtration efficiency against *Staphylococcus aureus* ATCC 6538 when tested according to ASTM F 2101 test method.

**SAMPLE IMAGE:**

**REMARKS:**

- This report, in full or in part, shall not be published, advertised, used for any legal action, unless prior permission has been secured from **The Director, ENVITRO LABORATORIES, RAJKOT.**
- The test report pertains to the sample tested.
- Sample not drawn by us.
- All above Parameters are not covered/Not accredited under NABL Scope of Accreditation.

Approved By:



Authorized Signatory


 इडरा  
**IEDRA**

 Award Winner  
 Laboratory

**एन्वीट्रो लेबोरेटरीज़ प्रा. ली.**

 खाद्य-खुराक, जल, मृदु (जमीन) एवं पर्यावरण के परीक्षणों के लिए पृथक्करण एवं संशोधन प्रयोगशाला  
 "कृष्णा निवास", ६ नवलनगर, मवडी मेइन रोड, फुलीया हनुमान मंदिर के सामने, राजकोट - ३६० ००४ (गुजरात) भारत.

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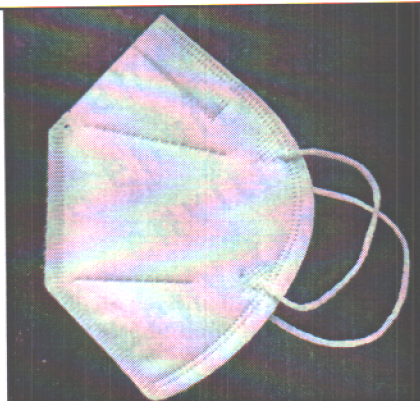
**TEST RESULTS**

SI No.	TESTS/PARAMETERS	Test Method	UNIT	LIMIT	RESULTS
<b>BREATHING RESISTANCE</b>					
1.	Inhalation permitted resistance @95 l/min	NIOSH IS 9473: 2002	mbar	3.0 max	1.23
2.	Exhalation permitted resistance @160 l/min		mbar	3.0 max	1.08

**Filter Efficiency as per NIOSH Standard**

Summary: This procedure was performed to evaluate particulate filter penetration as specified in 42 CFR Part 84 for requirements on a N95 respirator. Respirators were conditioned then tested for particle penetration against a polydispersed, sodium chloride (NaCl) particulate aerosol. The challenge aerosol was dried, neutralized and passed through the test article at a concentration not exceeding 200 mg/m<sup>3</sup> the initial airflow resistance and particle penetration for each respirator was determined.

According to 42CFR Part 84.64. Pretesting must be performed by all applicants as part of the application process with NIOSH. Results seen below are part of that pretesting and must be submitted to and accepted by NIOSH for respirator approval.


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