



DEPARTMENT OF HEALTH & HUMAN SERVICES

NIOSH Reference: TN-25417  
Mfr. Reference: MAK-2139

Centers for Disease Control  
and Prevention (CDC)

National Institute for Occupational  
Safety and Health (NIOSH)  
National Personal Protective  
Technology Laboratory (NPPTL)  
626 Cochran Mill Road  
Pittsburgh, PA 15236-0070  
Phone: 412-386-4000  
Fax: 412-386-4051  
February 10, 2022

Bob Wen  
Makrite Industries, Inc.  
11F-5, No.79, Sec 1, Hsin Tai Wu Road  
Xizhi Dist  
New Taipei City, 221  
TAIWAN

Dear Bob Wen:

The National Institute for Occupational Safety and Health (NIOSH) has reviewed the request referenced above and accepted November 15, 2021. This request was for five extensions of approvals to update assembly matrices to indicate the existing respirator color variants. The color variants include those added to the headstraps, valves and outer layer and appear in the "Description" row on the assembly matrices. The approval numbers and complete respirator configurations are detailed on the five assembly matrices contained in the project file.

This request is granted for five approvals. Approvals are granted only for documentation written in the English language. It is the approval holder's responsibility to correctly translate materials desired in languages other than English.

Since this request does not affect the full approval labels, final labels are not enclosed.

The approved assemblies consist of the parts as listed on the approval labels and the assembly matrices. The full and abbreviated approval labels must be presented to users as approved by NIOSH, including the cautions and limitations as listed. Parts are to be marked with the numbers indicated on the approval labels in a legible and permanent manner (marking cannot be removed without evidence of its previous presence).

No changes may be made to any respirators and accompanying documentation without prior written approval of NIOSH. Requests for changes must be submitted to NIOSH and a modification of this approval must be granted before changes are made.

Sincerely,

Jeffrey Peterson  
Chief, Conformity Verification and  
Standards Development Branch

Enclosure  
CC: Adam Freedman



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**National Institute for Occupational Safety and Health  
Respirator Branch  
Test Data Sheet**



**Task Number:** TN-24523

**Reference No.:** CFR 84.172

**Test:** Exhalation Resistance Test

**STP No.:** 3

**Manufacturer:** Makrite Industries, Inc.

**Filter Type:** Filter Only

**Item Tested:** 9600-N95S

| Sample | Maximum Allowable Resistance<br>(MM of H2O) | Actual Resistance<br>(MM of H2O) | Result |
|--------|---------------------------------------------|----------------------------------|--------|
|        | Exhalation                                  | Exhalation                       |        |
| 1      | 25                                          | 8.6                              | PASS   |
| 2      | 25                                          | 8.4                              | PASS   |
| 3      | 25                                          | 8.6                              | PASS   |

**Overall Result:** PASS

**Comments:**

Samples were tested on manometer 000505.

Was all equipment verified to be in calibration throughout all testing?



Yes



No

**Signature:**

**Date:** 2/24/2021

**Engineering Technician**

**Task Number:** TN-24523

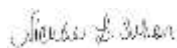
**Test:** Exhalation Resistance Test

**Manufacturer:** Makrite Industries, Inc.

**Reference No.:** CFR 84.172

**STP No.:** 3

**Signature:**



**Date:** 2/24/2021

**Engineering Technician**

**National Institute for Occupational Safety and Health  
Respirator Branch  
Test Data Sheet**



**Task Number:** TN-24523

**Reference No.:** CFR 84.172

**Test:** Inhalation Resistance Test

**STP No.:** 7

**Manufacturer:** Makrite Industries, Inc.

**Item Tested:** 9600-N95S

**Filter Type:** Filter Only

| Sample               | Maximum Allowable Resistance<br>(MM of H2O) | Actual Resistance<br>(MM of H2O) | Result |
|----------------------|---------------------------------------------|----------------------------------|--------|
|                      | Inhalation                                  | Inhalation                       |        |
| 1                    | 35                                          | 7.9                              | PASS   |
| 2                    | 35                                          | 9.1                              | PASS   |
| 3                    | 35                                          | 9.1                              | PASS   |
| Overall Result: PASS |                                             |                                  |        |

**Signature:**

A handwritten signature in black ink, appearing to read "Andrew L. Wilson".

**Date:** 2/24/2021

**Engineering Technician**

**Task Number:** TN-24523

**Reference No.:** CFR 84.172

**Test:** Inhalation Resistance Test

**STP No.:** 7

**Manufacturer:** Makrite Industries, Inc.

**Item Tested:** 9600-N95S

**Comments:**

Samples were tested on manometer 000034.

Was all equipment verified to be in calibration throughout all testing?

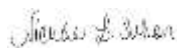


Yes



No

**Signature:**



**Date:** 2/24/2021

**Engineering Technician**

**National Institute for Occupational Safety and Health**  
**Evaluation and Testing Branch**  
**Test Data Sheet**



**Task Number:** TN-24523

**Reference No.:** CFR 84.174

**Test:** Sodium Chloride (NaCl) - N95

**STP No.:** 59

**Manufacturer:** Makrite Industries, Inc.

**Item Tested:** 9600-N95S

| Filter | Flow Rate<br>lpm | Initial Filter<br>Resistance<br>mm water gauge | Maximum<br>Allowable<br>Percent Leakage | Initial<br>Percent<br>Leakage | Maximum<br>Percent<br>Leakage | Result |
|--------|------------------|------------------------------------------------|-----------------------------------------|-------------------------------|-------------------------------|--------|
| 1      | 85               | 7.5                                            | 5.00                                    | 0.073                         | 0.379                         | PASS   |
| 2      | 85               | 8.4                                            | 5.00                                    | 0.077                         | 0.391                         | PASS   |
| 3      | 85               | 8.3                                            | 5.00                                    | 0.105                         | 0.388                         | PASS   |
| 4      | 85               | 8.9                                            | 5.00                                    | 0.081                         | 0.376                         | PASS   |
| 5      | 85               | 8.6                                            | 5.00                                    | 0.134                         | 0.492                         | PASS   |
| 6      | 85               | 8.4                                            | 5.00                                    | 0.145                         | 0.488                         | PASS   |
| 7      | 85               | 8.3                                            | 5.00                                    | 0.129                         | 0.716                         | PASS   |
| 8      | 85               | 9.0                                            | 5.00                                    | 0.125                         | 0.653                         | PASS   |
| 9      | 85               | 9.7                                            | 5.00                                    | 0.157                         | 0.575                         | PASS   |
| 10     | 85               | 9.1                                            | 5.00                                    | 0.205                         | 0.831                         | PASS   |
| 11     | 85               | 9.5                                            | 5.00                                    | 0.118                         | 0.690                         | PASS   |
| 12     | 85               | 9.3                                            | 5.00                                    | 0.146                         | 1.512                         | PASS   |
| 13     | 85               | 9.2                                            | 5.00                                    | 0.135                         | 0.607                         | PASS   |
| 14     | 85               | 10.1                                           | 5.00                                    | 0.131                         | 0.573                         | PASS   |
| 15     | 85               | 7.7                                            | 5.00                                    | 0.099                         | 0.570                         | PASS   |
| 16     | 85               | 9.0                                            | 5.00                                    | 0.279                         | 0.968                         | PASS   |
| 17     | 85               | 8.4                                            | 5.00                                    | 0.182                         | 1.459                         | PASS   |
| 18     | 85               | 8.5                                            | 5.00                                    | 0.256                         | 1.170                         | PASS   |
| 19     | 85               | 8.5                                            | 5.00                                    | 0.094                         | 0.555                         | PASS   |
| 20     | 85               | 8.9                                            | 5.00                                    | 0.085                         | 0.479                         | PASS   |

**Overall Result:** PASS

**Signature:**

**Date:** 2/26/2021

**Engineering Technician**

**Form revision: 1.1 2 October 2019**

**Task Number:** TN-24523

**Reference No.:** CFR 84.174

**Test:** Sodium Chloride (NaCl) - N95

**STP No.:** 59

**Manufacturer:** Makrite Industries, Inc.

**Item Tested:** 9600-N95S

**Comments:**

Sample 1-6 were tested on TSI 8130A machine 000388. Samples 7-14 were tested on TSI 8130A machine 000545. Samples 15-20 were tested on TSI 8130A machine 000546. Flow rate is measured in liters/min. Resistance is measured in mm H<sub>2</sub>O.

Was all equipment verified to be in calibration throughout all testing?



Yes



No

**Signature:**



**Date:** 2/26/2021

**Engineering Technician**

Form revision: 1.1 2 October 2019