

## NPPTL COVID-19 Response: Beyond Shelf Life/Stockpiled Respirator Assessment

Manufacturer: BACOU-DALLOZ HONG KONG LTD

Model Tested: BACOU WILLSON 801

Date Tested: August 6, 2020

Report Prepared: August 6, 2020

These findings pertain to the BACOU-DALLOZ HONG KONG LTD, Model BACOU WILLSON 801 (TC-84A-4006) submitted for testing; and may not be applicable to other stockpile facilities and/or under different environmental storage conditions. The maximum and minimum filter efficiency was 99.20% and 98.14%, respectively. All nineteen respirators measured more than 95% efficiency. There was no designated expiration date.

NIOSH regulation sets the minimum quality and performance requirements for the approval of respirators (42 CFR 84). **NIOSH does not have requirements for shelf life or storage conditions for particulate-only APRs.** The approval holder (i.e. the entity that is granted the approval from NIOSH) is responsible for understanding how their products' design or performance may be affected by various use or storage conditions and must provide instruction for establishing the proper use, storage, and maintenance procedures for their approved products, which may include designating a shelf life. FFR or particulate filter packaging (such as the box) often includes NIOSH-approved user instructions, label information, and recommendations on shelf life. Additionally, some approval holders also disseminate recommendations related to storage and shelf life through resources such as user and web notices. The respirators tested in this study were generally not designed for long-term storage.

Based on research conducted by NIOSH and this limited testing, NIOSH does not have enough information to definitively know the level of protection that may be provided by respirators that 1) are stored for prolonged periods of times; 2) are stored under various storage conditions; or 3) have exceeded the approval holder's designated shelf life. Users of respirators that have exceeded the designated shelf life should be forewarned to avoid a false sense of confidence; these devices may not provide the same level of protection as those that have not exceeded the designated shelf life. We recommend contacting the approval holder(s) of the respirators in the stockpile with specific questions regarding the use of product beyond the manufacturer- designated shelf life.

The results provided in this letter are specific to the subset of NIOSH-approved N95s, past their designated shelf life, that were provided to NPPTL for evaluation.

These results will be added to the CDC guidance for [Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life](#).

## Evaluation of Stockpiled and Beyond Manufacturer-Designated Shelf Life N95s



**Test:** TEB-APR-STP-0059

**Manufacturer:** BACOU-DALLOZ HONG KONG LTD

**Item Tested:** BACOU WILLSON 801 (TC-84A-4006)

**Expiration Date:** None Provided

**Manufacture Date:** None Provided

Filter	Flow Rate (LPM)	Initial Filter Resistance (mmH <sub>2</sub> O)	Initial Percent Leakage (%)	Maximum Percent Leakage (%)	Filter Efficiency (%)
1	85	11.6	1.15	1.15	98.85
2	85	10.5	0.94	0.94	99.06
3	85	8.2	0.80	0.80	99.20
4	85	11.3	1.06	1.06	98.94
5	85	11.0	0.96	0.97	99.03
6	85	8.9	0.92	0.92	99.08
7	85	11.1	1.02	1.02	98.98
8	85	11.6	1.86	1.86	98.14
9	85	9.2	0.87	0.87	99.13
10	85	10.7	1.12	1.12	98.88
11	85	10.9	1.39	1.39	98.61
12	85	10.0	0.89	0.89	99.11
13	85	9.7	1.20	1.20	98.80
14	85	10.2	1.05	1.08	98.92
15	85	8.7	0.81	0.81	99.19
16	85	11.1	1.16	1.16	98.84
17	85	11.4	1.32	1.35	98.65
18	85	8.5	1.19	1.19	98.81
19	85	11.2	1.09	1.09	98.91
20	Not Received	Not Received	Not Received	Not Received	Not Received
<b>Minimum Filter Efficiency: 98.14%</b>			<b>Maximum Filter Efficiency: 99.20%</b>		



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**FILTERING FACEPIECE  
APPROVAL LABEL**

**BACOU-DALLOZ HONG KONG LTD.**  
Flat B, Capital Trade Centre, 62 Tsun Yip Street  
Kwun Tong, Kowloon, Hong Kong  
00852-27070922



**防微粒口罩  
认证**

巴固工贸（上海）有限公司  
中国上海 200131  
0086-21-50480084

THESE RESPIRATORS ARE APPROVED ONLY IN THE FOLLOWING CONFIGURATIONS:  
RESPIRATOR COMPONENTS

TC-	PROTECTION <sup>1</sup>	FACEPIECE	CAUTIONS AND LIMITATIONS <sup>2</sup>
		BACOU WILLSON B01	
84A-4006	N95	X	A B C J M N O P

**1. PROTECTION**

**N95-Particulate Filter** (95% filter efficiency level)  
effective against particulate aerosols free of oil;  
time use restrictions may apply.

**2. CAUTIONS AND LIMITATIONS**

A- Not for use in atmospheres containing less than 19.5 percent oxygen.  
B- Not for use in atmospheres immediately dangerous to life or health.  
C- Do not exceed maximum use concentrations established by regulatory standards.  
J- Failure to properly use and maintain this product could result in injury or death.  
M- All approved respirators shall be selected, fitted, used, and maintained in accordance with MSHA, OSHA and other applicable regulations.  
N- Never substitute, modify, add, or omit parts. Use only exact replacement parts in the configuration as specified by the manufacturer.  
O- Refer to user's instructions and/or maintenance manuals for information on use and maintenance of these respirators.  
P- NIOSH does not evaluate respirators for use as surgical masks.

本呼吸器在以下方面得到认可

TC	防护 <sup>1</sup>	呼吸器	使用注意事项 <sup>2</sup>
		BACOU WILLSON B01	
84A-4006	N95	X	ABCJMNO P

**1. 防护功能**

有效防护悬浮颗粒（微粒过滤效率为95%）  
有效防护非油性悬浮颗粒  
可加以使用时间限制

**2. 使用注意事项**

A- 不得用于氧气含量低于19.5%的环境  
B- 不得用于可立时危机生命和健康的环境  
C- 不得用于浓度超过法规限定的最大使用浓度的环境  
J- 对本品的不当使用或不当保养会导致死亡  
M- 所有经过认可的呼吸器都应按 MSHA, OSHA 及其他适用的规范来选择、配戴、使用和保养  
N- 禁止擅自替换、更改或增减配件, 仅用制造商指定的元件来替换配件  
O- 参照使用说明或保养手册的内容使用和保养本品  
P- NIOSH 不对本品用作医用口罩进行规定



# BACOU WILLSON 801

Self-inhalation filter type particles respirator

안면부 여과식 방진 마스크 2급

自吸过滤式防微粒口罩

Ref:BC1005584



**BACOU**<sup>®</sup>  
**WILLSON**<sup>®</sup>

BACOU-DALLOZ HONG KONG LTD.  
Flat B, 3/F, Capital Trade Centre, 62 Tsun Yip Street,  
Kwun Tong, Kowloon, Hong Kong  
Tel : +852-27070922  
Fax : +852-27070932  
Made in China

30pcs/box  
30 只/盒  
30개/박스

巴固工贸（上海）有限公司  
地址: 中国上海浦东杨高北路2005号  
外高桥保税区港澳路389号  
电话: +86 021 50480084  
传真: +86 021 50481228

**NIOSH** NIOSH 42CFR84N95



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- 1** Hold the mask by left hand, put your jaw in the mask, then pull the top strap over your head and position it high on the back of your head, then pull the bottom strap to the neck.

하부 헤드 밴드를 당겨 귀 아래의 목에 걸어 줍니다.  
상부 헤드 밴드는 귀 상단 머리 위로 오게 합니다.

左手托持口罩, 下颚抵于口罩, 将头带拉至头顶, 然后将颈带向后拉至颈部。



- 2** Using both hands, mold the metal strip to the shape of your nose.

마스크 착용 후 콧쇠가 코 형태에 맞게 밀착하도록 양손으로 눌러줍니다.

双手轻压金属鼻夹, 使口罩与脸部贴合。



- 3** Check the facepiece to face seal by cupping both hands over the respirator and exhale vigorously. If air escapes around your nose, reform the metal strip. If air escapes around the edges, reposition the straps. Repeat as necessary until no air escapes and you have obtained a satisfactory seal.

양손을 모아서 마스크를 덮고 숨을 힘차게 불어내면서 마스크의 안면 밀착성을 시험합니다.

만약 코 주위로 공기가 새어 나오면 콧쇠를 다시 조절하여 줍니다.

공기가 가장자리 주변으로 새어 나오면 헤드 밴드를 다시 착용하여 줍니다.

공기가 새어 나오지 않고 얼굴에 만족스럽게 밀착될 때까지 착용 절차를 반복합니다.

将手弯成杯状覆于口罩上, 用力呼吸以检查口罩是否与脸部贴合。如有空气从鼻梁上方溢出, 需调整鼻夹; 如空气从口罩边缘溢出则调整头带, 直至理想密封状态为止。

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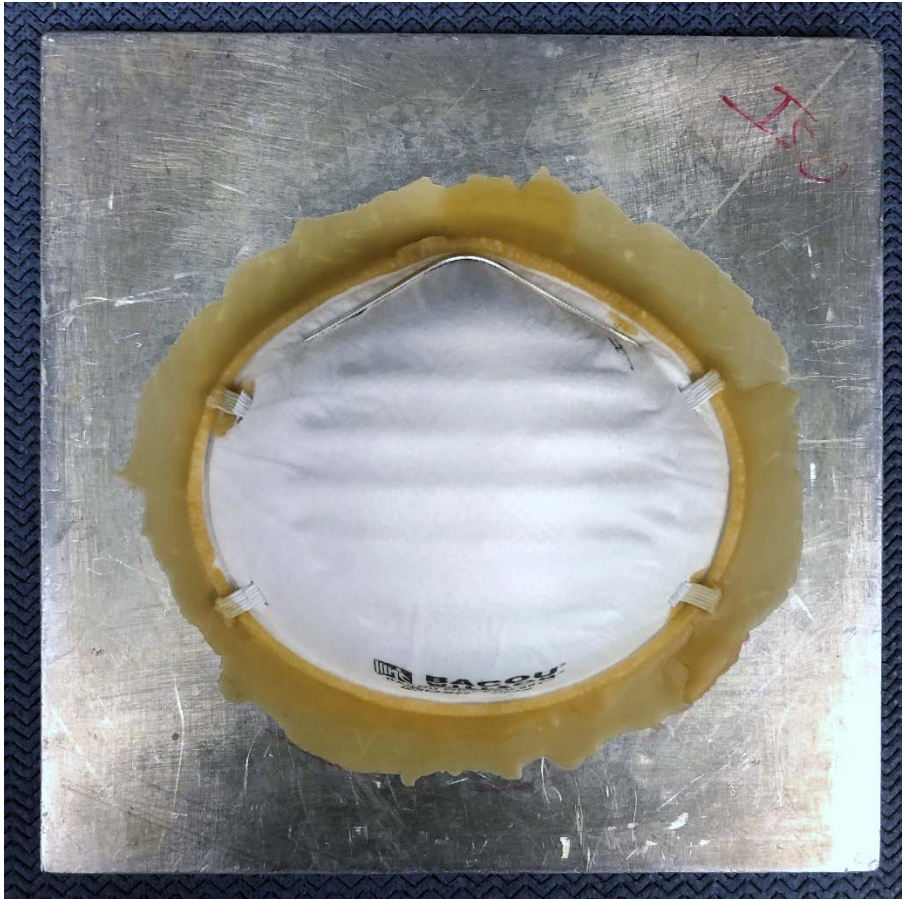


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