



# Challenges of Personal Protective Equipment During COVID-19

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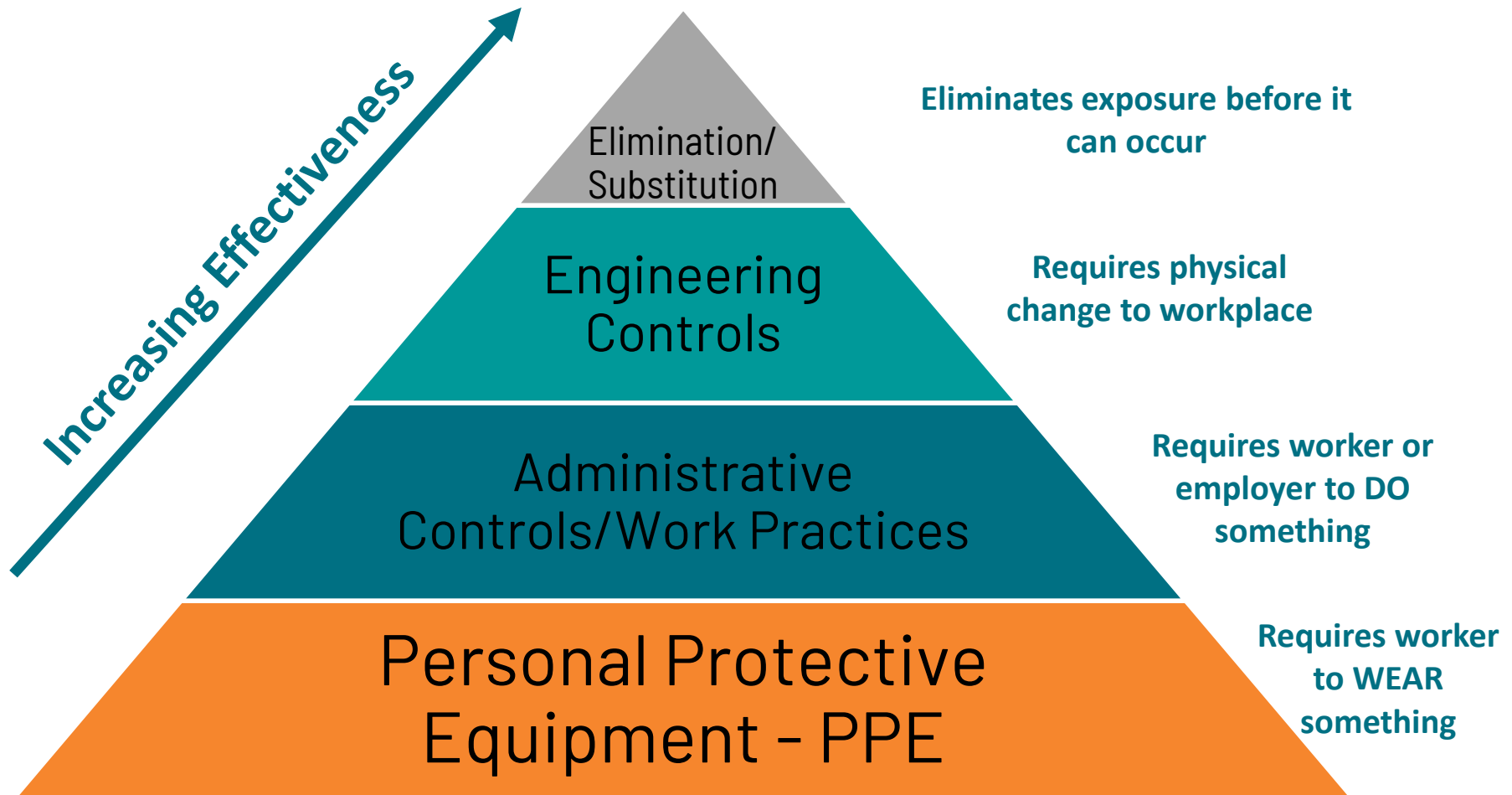
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505-504-2968

# Agenda

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- OSHA Hierarchy of Controls
- Types of Personal Protective Equipment – PPE
- Respiratory Protection – Loose-fitting vs. Tight-fitting Facepieces
- Respiratory Protection Plans
- Identifying Genuine Products
- Identifying Counterfeit Products
- Questions?

# OSHA Hierarchy of Controls



# Types of Personal Protective Equipment – PPE



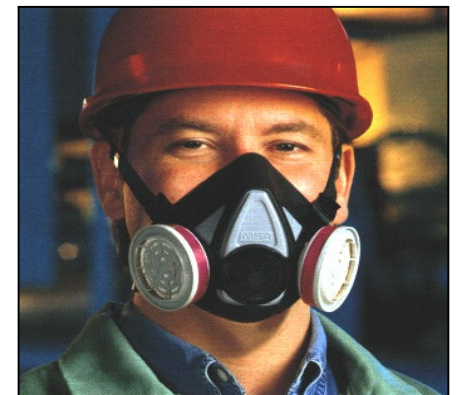
# Loose-fitting Facepieces

“Loose-fitting facepieces means a respiratory inlet covering that is designed to form a partial seal with the face.”



# Tight-Fitting Facepieces

“Tight-fitting facepiece means a respiratory inlet covering that forms a complete seal with the face.”



# Tight-fitting Facepieces – Issues Caused by Wear

- Headache
- Shortness of Breath
- Hyperventilation
- Unconsciousness
- Asphyxiation
- Death



# Tight-fitting Facepieces – Health Conditions to Consider

- Asthma
- Emphysema
- Congestive Heart Failure
- Chronic Obstructive Pulmonary Disease (COPD)



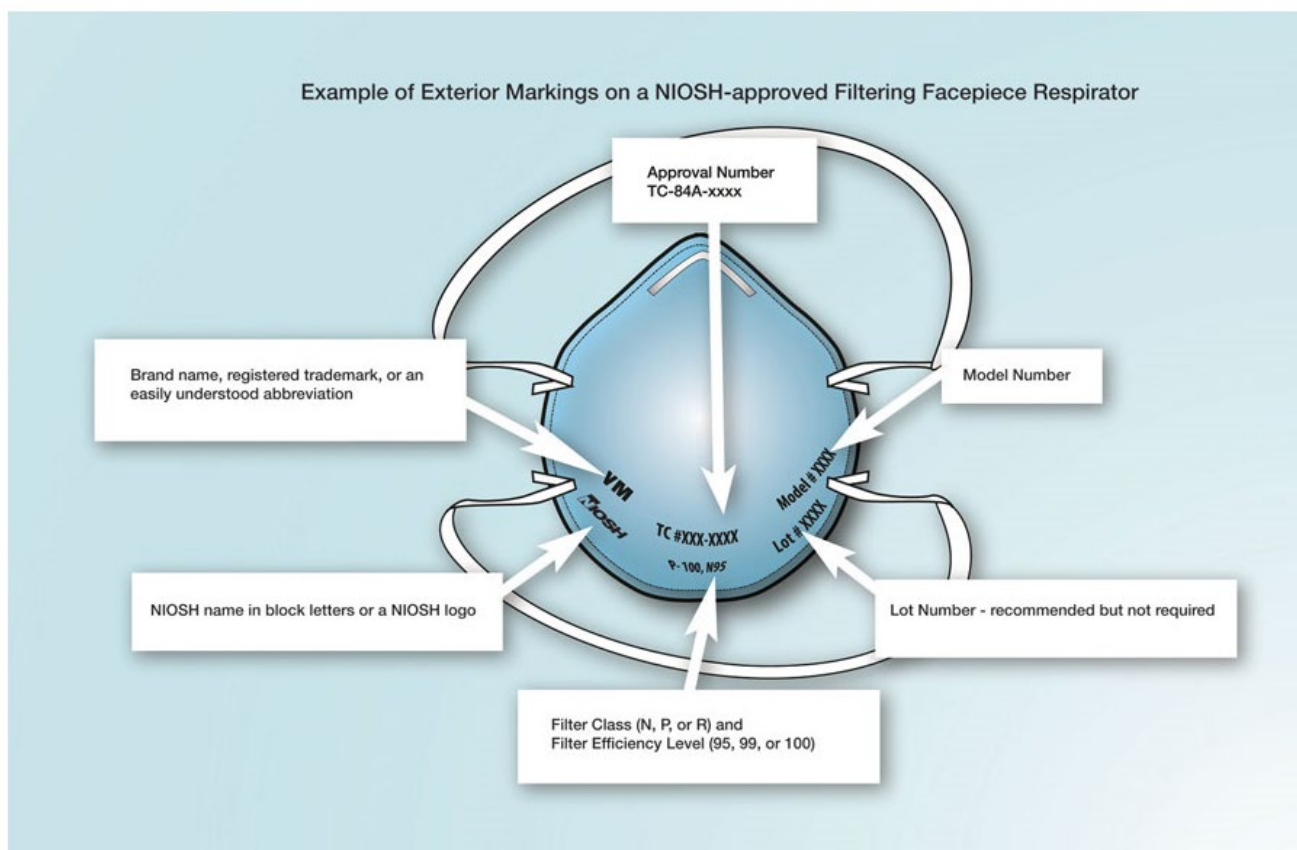
# Elements of a Respiratory Protection Plan

More information in Handouts

1. Selecting Equipment
2. Medical Evaluations
3. Fit Testing
4. Proper Use
5. Cleaning, Disinfecting, Storing, Inspecting, Repairing, Discarding and Other Maintenance
6. Adequate air quality, quantity and flow for Atmosphere-supplying respirators
7. Training
8. Program Evaluation

# Identifying Genuine Products – Correct Exterior Markings

## Example of the Correct Exterior Markings on a NIOSH-Approved Filtering Facepiece Respirator



# Identifying Genuine Products

## Centers for Disease Control and Prevention (CDC) NIOSH – Approved Particulate Filtering Facepiece Respirators

[https://www.cdc.gov/niosh/npptl/topics/respirators/disp\\_part/default.html](https://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/default.html)



Manufacturer/Supplier: 3M  
Model Number: 8210  
Approval Number: TC – 84A-0007

# CDC Website – NIOSH Approved Particulate Filtering Facepiece Respirators

## The National Personal Protective Technology Laboratory (NPPTL)

NIOSH > NPPTL



NPPTL

What's New on the NPPTL Website +

A to Z Index

For Respirator Users

For Respirator Manufacturers

Protective Clothing and Ensembles

Protective Technology Program at NIOSH

Respirator Trusted-Source Information +


**Approved Particulate Filtering Facepiece Respirators**



Certified Equipment List (CEL)

Respirator User Notices +

Promoting productive workplaces through safety and health research 

## NIOSH-Approved Particulate Filtering Facepiece Respirators

 For information about Coronavirus Disease 2019, visit <https://www.cdc.gov/coronavirus/2019-ncov/index.html>.

 For information about the FDA-authorized emergency use of NIOSH-approved FFRs, please see: <https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization#2019-ncov> 

This site provides a listing of NIOSH-approved particulate filtering facepiece respirators. This type of air-purifying respirators protects by filtering particles out of the air the user is breathing. There are seven classes of filters for NIOSH-approved filtering facepiece respirators available at this time. Ninety-five percent is the minimal level of filtration that will be approved by NIOSH. The N, R, and P designations refer to the filter's oil resistance as described below.

Select a type of respirator to see all approved models:

# CDC Website – NIOSH Approved Particulate Filtering Facepiece Respirators

Protective Clothing and Ensembles

Protective Technology Program at NIOSH

Respirator Trusted-Source Information +

**Approved Particulate Filtering Facepiece Respirators**

Certified Equipment List (CEL)

Respirator User Notices +

Meetings, Webinars, & Conferences +

Letters to Respirator Manufacturers and Interested Parties



About NPPTL

Contact NPPTL

Connect with NPPTL

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[PPE concerns? Contact Us](#)

 For information about the FDA-authorized emergency use of NIOSH-approved FFRs, please see: <https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization#2019-ncov> 

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## Select a type of respirator to see all approved models:

[N95 – Filters at least 95% of airborne particles. Not resistant to oil.](#)

(N95 Manufacturers Index: [3M](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#))

[Surgical N95](#) – A NIOSH-approved N95 respirator that has also been cleared by the Food and Drug Administration (FDA) as a surgical mask.

[N99](#) – Filters at least 99% of airborne particles. Not resistant to oil.

[N100](#) – Filters at least 99.97% of airborne particles. Not resistant to oil.

[R95](#) – Filters at least 95% of airborne particles. Somewhat resistant to oil.

[P95](#) – Filters at least 95% of airborne particles. Strongly resistant to oil.

[P99](#) – Filters at least 99% of airborne particles. Strongly resistant to oil.

[P100](#) – Filters at least 99.97% of airborne particles. Strongly resistant to oil.

The NIOSH-approved products are listed by brand. Links to the manufacturers' websites are provided as a courtesy to users and NIOSH is not responsible for the content of those pages. Also included is the manufacturer's phone number, product model number, approval number (84A-XXXX), an indication if the product has an exhalation valve, and the user donning instructions. The manufacturer's donning procedure and/or user instructions are also provided here as a courtesy to the user.

# CDC Website – NIOSH Approved Particulate Filtering Facepiece Respirators



[A-Z Index](#)

NIOSH ▾



[Advanced Search](#)

## The National Personal Protective Technology Laboratory (NPPTL)

NIOSH-Approved Particulate Filtering Facepiece Respirators



Promoting productive workplaces  
through safety and health research



## NIOSH-Approved N95 Particulate Filtering Facepiece Respirators

Updated June 19, 2020



For information about Coronavirus Disease 2019, visit <https://www.cdc.gov/coronavirus/2019-ncov/index.html>.

### Manufacturers Listed Alphabetically – 3M

The N95 respirator is the most common of the seven types of particulate filtering facepiece respirators. This product filters at least 95% of airborne particles but is not resistant to oil.

This web page provides a table of NIOSH-approved N95 respirators, listed alphabetically by manufacturer. You can select a particular manufacturer by clicking on the first letter of their name on the index below.

There are some products that are approved by NIOSH as an N95 respirator and also cleared by the Food and Drug Administration (FDA) as a surgical mask. These products are referred to as **Surgical N95 Respirators**. [View a definition of Surgical N95 Respirators](#). For your convenience the Surgical N95 Respirators are indicated with the **Model Number/Product Line in bold text followed by (FDA)**. If you have a product you believe is NIOSH-approved and FDA-cleared that does not appear on this list, you will need to check with CDC to determine if NIOSH-approved at 1-800-CDC-INFO (1-800-232-4636) and the FDA Center for Devices and Radiological Health at 1-800-638-2041 for verification of clearance. [View a comprehensive table of Surgical N95 Respirators](#).

# CDC Website – NIOSH Approved Particulate Filtering Facepiece Respirators

*Disclaimer: The links in this section go to websites outside of CDC/NIOSH and should not be considered as an endorsement of their content, or as a statement of NIOSH policy. The donning procedure and/or user instruction, either on the websites or the PDF version, should not be considered an official endorsement of their content, or as a statement of NIOSH policy.*

Index: [3M](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [Notes](#)




Supplier/Manufacturer and Contact Information	Model Number/Product Line	Approval Number	Valve Yes/No	Manufacturer's Donning Procedure User Instructions
<a href="#">3M Company</a> 888-3M HELPS or <a href="#">web form</a> (Distribution Availability)	1860 (FDA) 1860S (FDA)	84A-0006	No	<a href="#">1860, 1860S [PDF - 72 KB]</a>
<a href="#">3M Company</a> 888-3M HELPS or <a href="#">web form</a> (Distribution availability for all products listed for 3M)	8110S 8210 8210 Plus 8216 8217 7048	84A-0007	No	<a href="#">8210 [PDF - 103 KB]</a> <a href="#">8110S, 8210, 7048 [PDF - 187 KB]</a>
<a href="#">3M Company</a> 888-3M HELPS or <a href="#">web form</a>	N95	84A-0008	No	Not available
<a href="#">3M Company</a> 888-3M HELPS or <a href="#">web form</a>	8212 8214 8512 8514	84A-0454	Yes	<a href="#">8212, 8512 [PDF - 125 KB]</a> <a href="#">8214, 8514 [PDF 156 KB]</a>
<a href="#">3M Company</a> 888-3M HELPS or <a href="#">web form</a>	8211 8511 8515 8516	84A-1299	Yes	<a href="#">8211, 8511 [PDF - 59 KB]</a> <a href="#">8515 [PDF - 156 KB]</a> <a href="#">8516 [PDF - 81 KB]</a>




# CDC Website – NIOSH Approved Particulate Filtering Facepiece Respirators



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Index: 3M A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Notes

Supplier/Manufacturer and Contact Information


[3M Company](#)   
888-3M HELPS or [web form](#)   
([Distribution Availability](#) )

[3M Company](#)   
888-3M HELPS or [web form](#)   
([Distribution availability for all products](#) )


[3M Company](#)   
888-3M HELPS or [web form](#) 

[3M Company](#)   
888-3M HELPS or [web form](#) 

8214  
8512  
8514

[8214, 8514 \[PDF 156 KB\]](#) 

## Exit Notification/Disclaimer Policy

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- The Centers for Disease Control and Prevention (CDC) cannot attest to the accuracy of a non-federal website.
- Linking to a non-federal website does not constitute an endorsement by CDC or any of its employees of the sponsors or the information and products presented on the website.
- You will be subject to the destination website's privacy policy when you follow the link.
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# CDC Website – NIOSH Approved Particulate Filtering Facepiece Respirators

**3M**

3044

page 1 of 2

## Particulate Respirators 8210 and 8110S, N95

Issue Date 01/01/04

The 3M™ Particulate Respirator 8210, N95 is designed to help provide quality, reliable worker protection against certain non-oil based particles. The 3M™ Particulate Respirator 8110S, N95 offers the same protection for those workers with smaller faces. The 8210 and the 8110S offer a number of benefits to you and your workers.

### NIOSH approved N95

- At least 95% filtration efficiency against solid and liquid aerosols that do not contain oil.\* TC-84A-0007

### Advanced Electret Media

- Advanced electrostatically charged microfibers make breathing easier and cooler.

### Helps provide worker protection

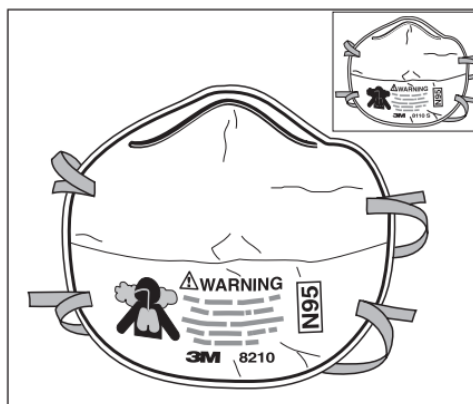
- Because they are comfortable to wear and easy to use, workers are quick to accept and use maintenance-free respirators, like the 8210 and 8110S. Studies have shown they can provide protection equivalent to a rubber facepiece respirator...at much lower cost and greater convenience.

### Lightweight construction

- Promotes greater worker comfort.
- Contributes to increased wear time.

### Adjustable noseclip

- Helps provide a custom fit and secure seal.
- Reduces the potential for eyewear fogging.

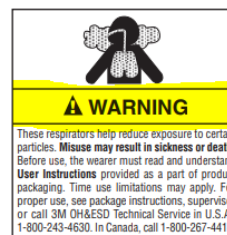


3M™ Particulate Respirator 8210, N95  
(Inset photo: 3M™ Particulate Respirator 8110S, N95)

### Suggested Applications



- Grinding
- Sanding
- Sweeping
- Bagging
- Other dusty operations
- Woodworking
- Foundries



# CDC Website – NIOSH Approved Particulate Filtering Facepiece Respirators

Respirators Per Box 8210 & 8110S	Respirators Per Case
20	160

#### Use For:

- Solids such as those from processing minerals, coal, iron ore, flour, and certain other substances.
- Liquid or non-oil based particles from sprays that do not also emit harmful vapors.

#### Do Not Use For:

Gases and vapors, including those present in paint spray operations, asbestos, arsenic, cadmium, lead, 4,4'-methylenedianiline (MDA) or sandblasting. Aerosol concentrations that exceed 10 times the OSHA PEL, or applicable exposure limits, whichever is lower. This respirator does not supply oxygen.

#### Important

Before using these respirators, you must determine the following:

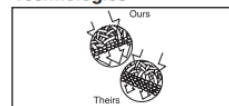
1. The type of contaminant(s) for which the respirator is being selected.
2. The concentration level of contaminant(s).
3. Whether the respirator can be properly fitted on the wearer's face. Do not use with beards, on other facial hair, or other conditions that prevent a good seal between the face and the facepiece of the respirator.
4. Before use of these respirators, a written respiratory protection program must be implemented, meeting all the requirements of OSHA 29 CFR 1910.134, including training, medical evaluation and fit testing.

#### Time Use Limitation

If respirator becomes damaged, soiled, or breathing becomes difficult, leave the contaminated area immediately and dispose of the respirator.

**3M Occupational Health and Environmental Safety Division**  
3M Center, Building 235-2W-70  
St. Paul, MN 55144-1000

#### Technologies



**Advanced Electret Media**  
Advanced electrostatically charged microfibers make breathing easier and cooler.

#### Additional Information

This respirator contains no components made from natural rubber latex.

#### For more information, please contact:

#### 3M Occupational Health and Environmental Safety Division (OH&ESD)

#### In the U.S., contact:

##### Sales Assistance

1-800-896-4223

##### Technical Assistance

1-800-243-4630

##### Fax On Demand

1-800-646-1655

##### Internet

<http://www.3m.com/occsafety>

#### For other 3M products

1-800-3M HELPS

#### In Canada, contact:

3M Canada Company, OH&ESD

P.O. Box 5757

London, Ontario N6A 4T1

##### Sales Assistance

1-800-265-1840, ext. 6137

##### Technical Assistance (Canada only)

1-800-267-4414

##### Fax On Demand

1-800-646-1655

##### Internet

<http://www.3m.com/CA/occsafety>

#### Technical Assistance In Mexico

01-800-712-0646

5270-2255, 5270-2119 (Mexico City only)

#### Technical Assistance In Brazil

0800-132333

#### Fax On Demand O.U.S. Locations

1-651-732-6530

# Identifying Counterfeit Products

- No Markings at all on the Filtering Facepiece Respirator (FFR)
- No Approval (TC) Number on the FFR or Headband
- No NIOSH Markings
- NIOSH Spelled Incorrectly (or incorrect format)
- Presence of Decorative Fabric or Other Decorative Add-Ons (i.e. Sequins)
- Claims for the Approval for Children (NIOSH does not approve any type of respiratory protection for children)
- Filtering Facepiece Respirator has Ear Loops instead of Headbands

# Identifying Counterfeit Products

- **No Markings at all on the Filtering Facepiece Respirator (FFR)**



This product is not NIOSH approved. No NIOSH logo or approval number on the face of the product. (11/6/2019)



This product is not NIOSH approved. No NIOSH logo or approval number on the face of the product. (11/6/2019)



There are no markings on the face of the respirator. (11/6/2019)


# Identifying Counterfeit Products

- No Approved (TC) Number on the FFR or Headband

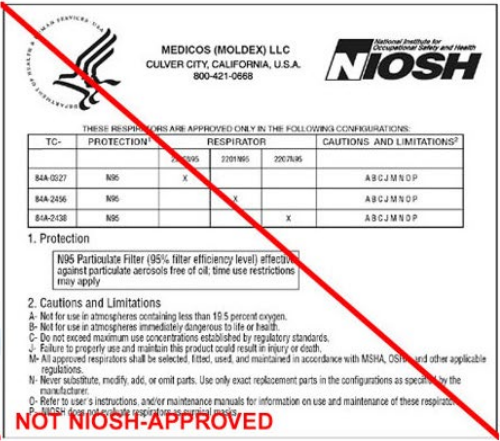


# Identifying Counterfeit Products

- No NIOSH Markings



**NOT NIOSH-APPROVED**



**NOT NIOSH-APPROVED**

THESE RESPIRATORS ARE APPROVED ONLY IN THE FOLLOWING CONFIGURATIONS:

TC	PROTECTION	RESPIRATOR	CAUTIONS AND LIMITATIONS <sup>2</sup>
84A-0527	N95	X	ABGJMNOP
84A-2456	N95	X	ABGJMNOP
84A-2138	N95	X	ABGJMNOP

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 15.5 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.  
 D. Failure to properly use and maintain this product could result in injury or death.  
 E. All approved respirators shall be selected, fitted, used, and maintained in accordance with MSHA, OSHA and other applicable regulations.  
 F. Never substitute, modify, add, or omit parts. Use only exact replacement parts in the configurations as specified by the manufacturer.  
 G. Refer to user's instructions, and/or maintenance manuals for information on use and maintenance of these respirators.  
 H. [Click here to view the user notice](#)

This is an example of a counterfeit respirator. Medicos is selling an N95 respirator using the Moldex approval number and label without Moldex's permission. Medicos is not a NIOSH approval holder or private label holder. (3/12/2020)

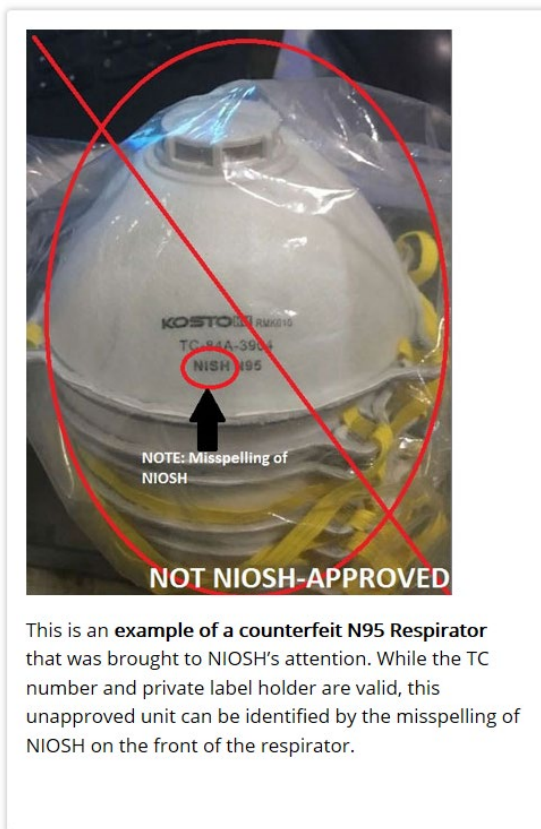


**NOT NIOSH-APPROVED**

This is an example of misrepresentation of the NIOSH-approval. All approvals for Wein Products (WPI) were rescinded in 2011. However, the manufacturer's website continues to state the ViraMask N99ESC is certified by NIOSH. [View the user notice announcing the rescission.](#)

# Identifying Counterfeit Products

- NIOSH Spelled Incorrectly (or incorrect format)



# Identifying Counterfeit Products

- Presence of Decorative Fabric or Other Decorative Add-Ons (i.e. Sequins)



Photos – from Amazon



This is an example of misrepresentation of the NIOSH-approval. Vogmask® is not a NIOSH approval holder. This wording is misleading and not accurate: *With premium technologies and designs for best particle filtering results, our NIOSH certified Vogmask® is a reusable superior everyday face mask that protects one from dust, fine particulate matters (PM), pollen, air pollution, such as smog and smoke ... from* <https://www.vogmask.ca/> (10/07/19)

Photos– from CDC



# Identifying Counterfeit Products

- **Claims for the Approval for Children (NIOSH does not approve any type of respiratory protection for children)**



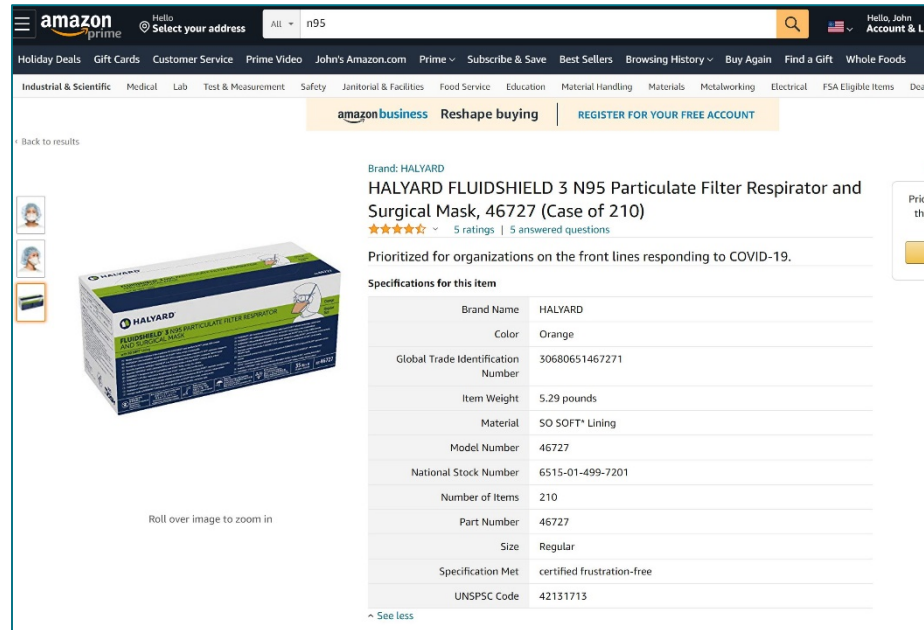
# Identifying Counterfeit Products

- **Filtering Facepiece Respirator has Ear Loops instead of Headbands**



**Images here are examples of counterfeit respirators.** These respirators are being sold as if they are NIOSH-approved even though the manufacturer, Anhui Tongcheng YaGe Health Materials, Co., Ltd, is not listed as a NIOSH approval holder or a private label holder. (10/23/2019)

# Examples of Counterfeits Currently on Sale – Amazon



<a href="#">Hakugen Company, Ltd.</a> [✉] [*I] 886-2-2683-0356	SGPR-N95	84A-4635	No	<a href="#">SGPR-N95</a> [PDF - 133 KB] [✉]
<a href="#">Harbor Freight Tools</a> [✉] [*E] 800-379-9929	94785A 61438	84A-5411	No	<a href="#">All Models</a> [PDF - 538 KB] [✉]
<a href="#">Healthscope Operations</a> [✉] [*D] 81-547-45-4125	99SA070M 99SA071S	84A-3348	No	<a href="#">All Models</a> [PDF - 182 KB] [✉]

# Examples of Counterfeits Currently on Sale – Amazon

RespoKare N95 Mask, 5 Ply Face Masks, For Home & Office, RK-200-3041 (30 Pcs)

Visit the RespoKare Store

4 ratings | 5 answered questions

Extended holiday return window till Jan 31, 2021

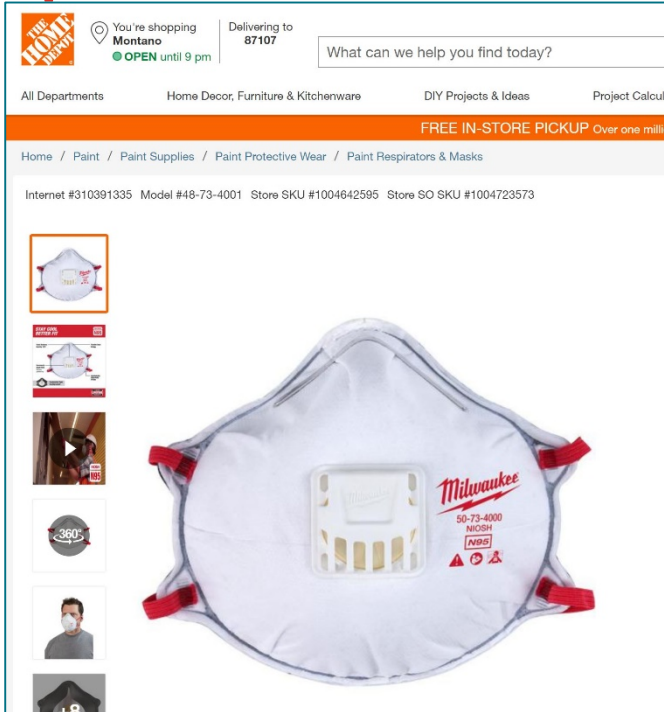
Prioritized for organizations on the front lines responding to COVID-19.

- The RK-200-3041A protective device designed for secure facial fit and a very efficient 95% filtration rate of airborne particles. The 'N95' designation means that when subjected to careful testing, the respirator blocks at least 95 percent of very small (0.3 micron) test particles.
- Manufacture: Innnox Technologies Limited, NIOSH approved.
- Packing: 30 pcs masks. FBM
- Note: The products have the patented technology, there will be a special smell, but please rest assured to use.

Specifications for this item	
Brand Name	RespoKare
Part Number	RK-200-3041A
Specification Met	
UNSPSC Code	46182008

<a href="#">Representaciones Internacionales J.Y.R., S. A. de C.V.</a> [*AE] +86 512 65586078 / 65586018	REX-340	84A-7865	Yes	<a href="#">REX-340</a> [PDF - 339 KB]
<a href="#">Rescue Plus, Inc.</a> [*D] 81-547-45-4125	Rescue Plus 95S Rescue Plus 95M	84A-3348	No	<a href="#">All Models</a> [PDF - 61 KB]
<a href="#">Reutter</a> [*AD] 86-512-66100068	AAMASN95	84A-5530	No	<a href="#">AAMASN95</a> [PDF - 126 KB]

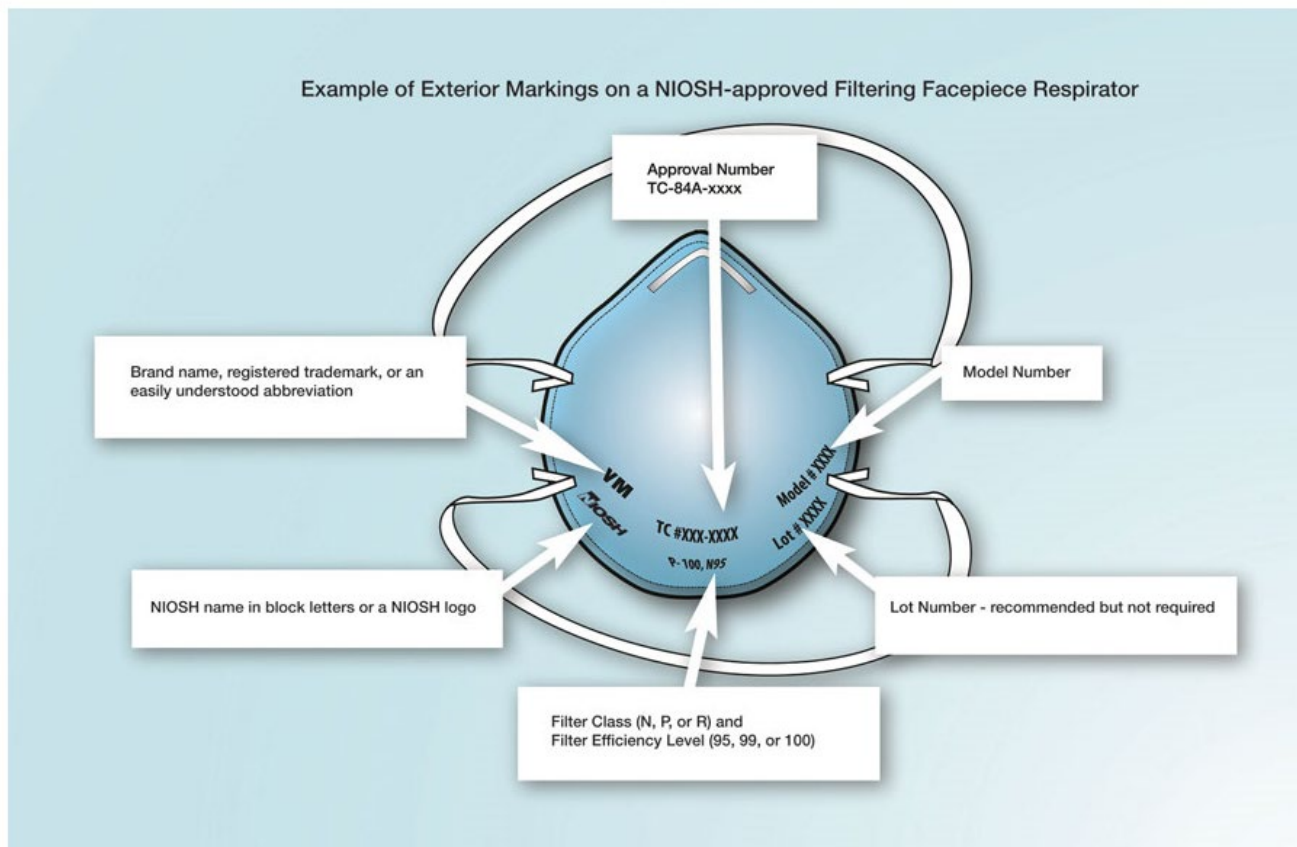
# Examples of Counterfeits Currently on Sale – Home Depot



<a href="#">Milysz Import Product</a> [✓] [✎] 800-379-9929	TBC 1408-N95	84A-5411	NO	<a href="#">TBC 1408-N95</a> [✎] [PDF - 538 KB] [✓]
<a href="#">Milwaukee Electric Tool</a> [✓] [*AF] 91-022-2769-2646	50-73-4000	84A-8142	Yes	<a href="#">50-73-4000</a> [✎] [PDF - 204 KB] [✓]
<a href="#">Milwaukee Electric Tool</a> [✓] [*AF] 91-022-2769-2646	50-73-4010	84A-8143	Yes	<a href="#">50-73-4010</a> [✎] [PDF - 204 KB] [✓]

# Identifying Genuine Products – Correct Exterior Markings

Example of the Correct Exterior Markings on a NIOSH-Approved Filtering Facepiece Respirator





# Questions?

## Challenges of Personal Protective Equipment during COVID-19

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# Disclaimer

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*Please visit our website at [www.pomsassoc.com](http://www.pomsassoc.com) or call us at 818-449-9300*