

The N95 Dust Mask Facts and Fallacies



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I've often been asked how one can identify "fake news" sources. My only suggestion is when a data source gives you information that contradicts your own first-hand knowledge, you've identified a "fake news" source.

I should have written this article earlier, but I wasn't 100% positive that the mask I was intimately familiar with was an N95, and I have no desire to be an unreliable source. I found one in the shop, the other day, and now I'm 100% certain. I'm not an engineer nor have I ever been involved with the design or the manufacture of this or any similar product. I have, however, for a number of years, been a professional end-user of this product. If you were interested in investing in a new car, you may find value in the opinions of the designer and the manufacturer, but my first choice would be the opinions and observations of the test driver of the vehicle.

3M®, formerly *The Minnesota Mining and Manufacturing Company*, one of the primary manufacturers of the N95 *dust mask*, is quite proud of their product. They've elevated it from a cheap little *disposable* paper dust mask to the grandiose title of "*respirator*." The combination of a molded piece of filter paper, basically a glorified coffee filter, and a couple elastic bands does not constitute a "respirator." Should I so desire I could refer to my cat's litter box as a "*cold fusion*" reactor, but it'll never be more than a puddy-tat latrine no matter how creative I may get with my nomenclature. Exaggeration has become an accepted form of lying in today's "*post truth*" society. I hope to prove to you, in this article, that's the least important lie associated with this product.

There are lies of *commission*, where one makes statements that are simply not true and there are lies of *omission*, where one omits pieces of information that, by their absence, make the statement less than truthful. In the case of the N95 dust mask the devil's in the details and the details lie in the facts you're not told. The biggest lie is a lie of omission.

The N95 designation comes from a set of specifications established by *NIOSH*, *The National Institute for Occupational Safety and Health*, which is a subsidiary of the *CDC*, *The Centers for Disease Control and Prevention*. The table below illustrates the naming convention of these type masks.

Mask Rating Letter Class	Mask Rating Number Class
N – Not oil resistant	95 – Removes 95% of all particles at least 0.3 μ in diameter
R – Resistant to oil	99 – Removes 99% of all particles at least 0.3 μ in diameter
P – Oil proof	100 – Removes 100% of all particles at least 0.3 μ in diameter

Below, you'll find a list of filterable particles. I've highlighted all of those we'll be directly referencing.

Throughout the rest of the article the Greek letter Mu, μ , or the abbreviation, μm , are used to represent a measurement of length, the *micron*, or the *micrometer*, respectively. They are two different designations for precisely the same measurement... one millionth of a meter, 0.000001 meter, or one thousandth of a millimeter, 0.001 mm or, approximately 0.000039 inches. One inch = 25,400 μm .

Examples:

- 0.00005 μm – oxygen molecule
- 0.001 μm – pesticides and herbicides
- 0.01 to 4 μm – tobacco smoke
- 0.1 to 10 μm – radioactive fallout
- 0.17 μm – length of an influenza virus
- 1 to 10 μm – length of a typical bacterium
- 1 to 1000 μm – fiberglass insulation
- 5 μm – length of a typical human spermatozoon's head
- 3 to 8 μm – width of a strand of spider web silk
- $\approx 10 \mu\text{m}$ – size of a fog, mist, or cloud water droplet
- 10 to 12 μm – thickness of plastic "cling wrap"
- 10 to 30 μm – mold spores
- 10 to 55 μm – width of a wool fiber
- 17 to 181 μm – diameter of human hair
- 30 to 600 μm – sanding dust/saw dust
- 70 to 180 μm – thickness of paper
- 100 to 10,000 μm – beach sand

As you can see the influenza virus, at 0.17 μ in length, is too small to be stopped by any of the masks listed above. Conventional wisdom dictates the following explanation:

"...it is critical to understand that the flu virus does not float in the air by itself. The flu virus is transported from patient to patient on droplets of excretions from sneezing and coughing. These particles are typically 5 microns or larger. When a sick patient wears a respirator, the respirator can be very effective at preventing infectious material from leaving the patient's body, and when worn by healthy individuals, it prevents inhalation of said material. More importantly, wearing a mask is an excellent way of preventing the

*user from rubbing or touching their mouth or nose, which is a very high risk factor. At the end of the day will an N95 mask guarantee to protect you from the Flu? No. But it can **substantially** reduce your risk of receiving or transmitting the disease.”**

You may have a better understanding of the principles behind the use of the N95 dust mask but I'm sure you're curious as to exactly why I'm speaking of lies and deception. We're now leaving the world of theoretical science and stepping into the cold, cruel world of reality, which is where the majority of us live. Now we'll explore how well this product performs in actual usage.

The specifications for the filtering ability of the mask are based upon the properties of the filter material. I'd imagine it's been thoroughly tested, and we can probably trust what they say about its ability to filter particles. I have no bone to pick there. The problem arises when one assumes that the filtration ability of the filter material is the same as the filtration ability of the mask it's made into. Here's where we run into problems.

I've thoroughly tested the capabilities of this mask over the eight years I used it on an almost daily basis. I didn't work in a laboratory where every aspect of the test was completely controlled. I tested it on the factory floor in a real-world situation. I had no fancy instrumentation to evaluate my findings. I relied solely on my eyes, my lungs, and the comments of my co-workers.

I worked in a furniture factory managed by people who thought the best air filtration system, or at least the most inexpensive one, was the lungs of the trusted and valued employees. It was a toxic environment in every sense of the word. I can summarize my eight year experiment in one sentence:

“The N95 dust mask doesn't seal on the face of any user, ever, under any circumstances.”

One must remember that the mask is rated by the capabilities of the paper it's made from. It's the paper that's been tested... not the mask. Here's the lie by omission. They don't tell you that unless the mask seals properly on your face, contaminated air bypasses the mask and renders the mask ineffective. *Figures don't lie, but liars do figure.*

My eight year “test” was conducted using sanding dust, the vast majority being mahogany dust. We didn't wear these masks for fun. As many of you now know they make your life miserable in varying degrees. We wore them to protect ourselves from the dust. Mahogany dust, because of its natural color, acts as a perfect indicator. When anyone removed their mask at break time or quitting time they had the telltale red stains around their mouth and nostrils, and an orange tint to their face. How much more indication does one need to determine that the mask has failed miserably? We had the benefit of a visible indication. The China Virus is insidious in that it leaves no such visible evidence. You can just plod along throughout your day believing you're being safe with no indication that you're not. The mask's biggest benefit may be that it keeps you from continually touching your nose and face.

Those of us who used this mask did so because we felt a need and because this was the mask the company provided. We did everything possible to assure we had the best possible fit, but it was a losing battle. The little metal strip across the top of the mask did help it seal around the nose and the addition of one at the bottom to help seal around the chin may have been an improvement. We finally determined there were two criteria involved in the design of this mask. I believe I've placed them in the proper order of priority:

1. The targeted sales price-point
2. The actual effectiveness of the mask

We did find other masks that were much more effective, and they all had three attributes in common. They both had a rubber or silicon frame that would seal to the face, some sort of adjustable bands to hold the mask securely to one's face, and a separate, replaceable filter. They were also more expensive. Again, our red indicator dust told the story. Faces remained clean and the filter material became redder and redder as the day went on and, as the filters collected more dust, it became harder to breathe through them. I can't say that these masks removed all dust from the air, but they did remove a much higher percentage than the N95.

If dust, measuring nearer the low end of the figures on my table, 30 to 600 μm , can slip past the mask, then a virus, riding a moisture droplet measuring about 10 μm , can easily do the same. The mask that is, supposedly, so effective we were asked to use inferior products so healthcare workers could use the N95s, doesn't perform as advertised.

In conclusion, this scandemic, or plandemic, whichever you prefer, that we've been subjected to by our own government, should serve as an educational experience. Had this virus of Chinese origin been as lethal as we were initially led to believe, we would have witnessed death of proportions unknown since the Black Plague peaked in Europe between 1347 and 1351, due to our embarrassingly low level of readiness for that type of disaster. We've also learned that our iconic, heroic Liberal leaders once again displayed their uncanny ability to turn silk purses into sows ears. The highly revered Barack Hussein Obama depleted the nations supply of N95 masks and never replaced them. He had an uncanny skill for making money vanish into thin air. Another bastion of Liberalism, New York Governor Andrew Cuomo, sold off his state's supply of respirators with no explanation.

His contributions didn't stop there. He was one of the five governors that dramatically raised the China Virus death toll by forcing nursing homes to admit coronavirus patients. Cuomo was a superstar in that endeavor because he did this while avoiding using facilities provided for him by President Trump. Where could we possibly get the idea he was more concerned with making the President look bad than he was about the welfare of his constituents?

All the while, nipping at his heels, were governors Phil Murphy of New Jersey, Gretchen Whitmer of Michigan, Gavin Newsom of California, and Tom Wolf of Pennsylvania. I'm not going to be as quick to scream “conspiracy to commit murder” as so many are willing to do. I believe in giving the benefit of the doubt whenever possible. I'm willing to admit their actions could have been as innocuous as negligent homicide or even criminal stupidity. What I do know is that I don't believe in coincidences. It's no coincidence that all five are members of the Democratic Party. The other fact I'm well aware of is that they owe society, we the people, an enormous debt that needs repaid from inside a prison cell or on a gallows erected in a public square. Unless we enjoy being used and abused by those we elect to serve us, we need to impress them with the fact that neither wealth nor power hold much value once they nail the lid on your pine box.

A pdf copy of this article may be downloaded [here](#).



*<https://www.envirosafetyproducts.com/resources/dust-masks-whats-the-difference.html>