

What is the Product NanoMask® by Emergency Filtration Products



What's nano about it?

- NanoMask® uses nanoparticles on the surface of the filter to increase the filtration capabilities of the mask. Nanoparticles have very large surface to volume ratios which makes them excellent filters.
- The nanoparticles are active for 48 hours when placed in the mask.

How does it work?

- Most filters used for medical masks are rated as N-95 which means that the filter is 95% efficient at removing particles with a diameter of 0.3 microns.
- EFM uses a double filtration system of a hydrophobic and a hydrophilic layer to increase efficiency of the mask. The two layers work together to manage the moisture in the mask which pathogens need for growth.
- The nanoparticles are negatively and positively charged and they trap and destroy bacteria and viruses.
- EFM says the filter is 99% efficient at removing particles with a diameter of 0.027 microns. The smaller the size of the particles the more difficult it is to remove.
- The filter is said to trap and destroy (within 1 minute) the H9N2 Bird Flu Virus.

Does it have other applications?

- It could be used by the general public to prevent inhalation of infectious pathogens.
- It could be used by workers exposed to very fine particles (like nanoparticles).

Price

- The NanoMask costs around \$10.00. Additional filters costs about \$10.00 for 10.

Glossary

- Nanoparticle - a particle with at least one dimension of less than 200 nanometers.
- Infectious Pathogen: a biological agent (bacterium or virus) that causes illness or disease.
- Inhalation: to draw air into the lungs, breathe in.

This information came from:

[Http://www.emergencyfiltration.com](http://www.emergencyfiltration.com)

<http://abcnews.com/health/print?id=1182529>

Definitions came from:

<http://en.wikipedia.org/wiki/Main.page>

<http://dictionary.reference.com>