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## H1N1 Disinfection

As we watch the progression of the 2009-H1N1 flu, commonly referred to as the human swine flu, we need to remember that the average flu kills 50,000 people, and the H1N1 flu is not average. In fact, it seems to attack the healthiest people, causing their extremely healthy immune systems to overreact. It is this overreaction that causes the pneumonia-like condition that may result in death.

Many people continue to ask about disinfectants registered to kill H1N1. The official position of the Environmental Protection Agency (EPA) has not changed. The EPA continues to support the use of disinfectants registered to kill Influenza A virus as effective against the 2009-H1N1 flu strain. Enviro-Solutions carries the Influenza A virus kill claim on ES64 General Purpose Neutral Disinfectant Cleaner (at 2 oz/gal), ES256 Neutral Disinfectant Concentrate (at 0.5 oz/gal), and ES512 Sanitizer/Disinfectant (at 0.7 oz/gal).



In the United States, the governing body for disinfectants is the EPA. The EPA determines what disinfectants are to be used for specific biological threats. The Centers for Disease Control and Prevention (CDC) will defer to the EPA for these kinds of details, since the EPA must approve the products and the manufacturer's instructions for use. The EPA has released a statement about disinfectants for use against H1N1.

The EPA statement is available on their website at

<http://www.epa.gov/oppad001/influenza-disinfectants.html>

The statement reads in part:

*Antimicrobial Products Registered for Use Against the H1N1 Flu and Other Influenza A Viruses on Hard Surfaces*

*EPA registers pesticide products, including disinfectants. As part of the registration process, EPA evaluates the product efficacy to make sure the public health label claims are accurate. Currently, over 500 disinfectant products are registered for use on hard, non-porous surfaces against influenza A viruses. EPA believes, based on available scientific information, that the currently registered influenza A virus products will be effective against the 2009-H1N1 flu strain and other influenza A virus strains on hard, non-porous surfaces. For safe and effective use of these products, always follow label instructions for these products, paying special attention to the product's dilution rate (if applicable) and contact time.*

*Choose a product whose label states that it is effective against "Influenza A virus" and lists your specific site of concern, such as: farm premises, hospitals and other healthcare facilities, schools, offices or homes. These products are widely available and can be purchased at drugstores, supermarkets, and home maintenance/repair stores, among others.*

In the same article, the EPA offers access to a list of 500 antimicrobial products that are specifically registered for the H1N1 virus. They state that it is "not a complete list since some products may have different distributor or product names." Enviro-Solutions is represented on the list--you just have to know where to look. Every disinfectant product offered in the United States has an EPA registration number. The EPA Reg number is used to identify the product's initial registrant and the formula, as well as the location or company that was involved with blending or distributing the product.

Enviro-Solutions ES64 Neutral Disinfectant and Enviro-Solutions ES256 Neutral Disinfectant Concentrate are on the list as subregistrations from Lonza, Inc. Lonza is one of the world's largest and most respected raw quat suppliers. They are well known to have pioneered a huge number of state-of-the-art quats, which is why Enviro-Solutions uses them as a supplier.

Enviro-Solutions ES64 Neutral Disinfectant has the EPA Reg number 6836-204-68138, which indicates that Lonza is the primary registrant (#6836), it is their formula (#204), and it is subregistered to Enviro-Solutions (#68138). Enviro-Solutions ES256 Neutral Disinfectant Concentrate has the EPA Reg number 6836-205-68138, which indicates that is Lonza's formula #205 and is subregistered to Enviro-Solutions.



### **Our position regarding disinfectants for H1N1**

Due to the highly contagious nature of this virus, we have been recommending that facilities upgrade from neutral floor cleaners to our ES256 Neutral Disinfectant Concentrate for floors and above-the-floor surfaces (including touch points) as soon as the virus is detected in the community (DEFCON 2). We have been recommending upgrading to our ES64 Neutral Disinfectant Cleaner for floors and above-the-floor surfaces (including touch points) as soon as the virus is detected within the facility (DEFCON 3). Keep in mind, for complete decontamination procedures, we always recommend disinfecting pre-cleaned surfaces to guarantee that the entire surface area has been completely disinfected.

### **Other concerns related to indoor air quality**

The other dominant questions and concerns revolve around the impact of disinfectants on the indoor air quality, specifically, the health and safety of the facility's occupants. These are valid concerns. There

are scores of extremely powerful and potentially corrosive chemicals that would have a very negative effect on the indoor air quality. Consider bleach: while it is well accepted that bleach is corrosive enough to kill almost all pathogenic microorganisms, it also has the ability to damage surfaces and cause varying forms of respiratory distress in building occupants.

### **Incorporate several disinfectant solutions**

It is with this in mind that drives the point that the best disinfectant program will incorporate several disinfectant solutions. An operating room, for example, would benefit from an extremely aggressive disinfectant, whereas certain public areas and private offices could be disinfected with far less corrosive and dangerous disinfectants.

Practice Greenhealth (H2E) had this to say in a recent article:



*...best practices can assure that disinfection is highly effective without involving unnecessary exposure for workers, staff, and patients, and such practices should be encouraged as*

*part of environmentally sound cleaning operations. These include careful classification of areas of the hospital as critical, semi-critical, and non-critical, using the appropriate product for target microorganisms, using products at the appropriate concentration and for the proper residence time. Infection control must also incorporate many essential practices unrelated to cleaning, like increased hand-washing.*

And...

*Health care facilities throughout the country have successfully implemented green cleaning programs while maintaining the efficacy of their infection control efforts. Practice Greenhealth encourages health care facilities to continue to adopt environmentally sound*

*cleaning as an overall quality improvement program, carefully considering each aspect of implementation.*

<http://cms.h2e-online.org/ee/facilities/greencleaning/>

The point is that we should incorporate several different disinfectants in a highly efficient program. We can maximize effectiveness where it is critically needed with the use of RTU (ready-to-use) disinfectants and use cost effective disinfectant solutions (1:64 or 1:256) in other areas. By approaching it that way, we will accomplish exactly what we want, while minimizing overall costs.

With the miracle of modern media and the Internet, we have been kept very aware of this emerging threat, much sooner than we would have been just 20 years ago. Back then, the general public probably wouldn't even know about it yet. Also, keep in mind that the 1918 pandemic hit in three waves, not one, ultimately taking between 50 million and 100 million lives. We have to stay on top of this.

Here are some excellent websites that will allow us to closely track this outbreak:

HealthMap.com is a global disease alert map pinpointing each H1N1 flu outbreak location, with a brief description of the event.

<http://healthmap.org/swineflu>

The CDC has been providing daily press briefings. The MP3 audio and transcripts will keep you very current.

<http://www.cdc.gov/h1n1flu/press/>

Another very interesting site is PandemicFlu.gov. The site acts as a clearinghouse for current information on H1N1 from the CDC, the World Health Organization (WHO), the FDA, the Pan American Health Organization (PAHO), and others.

<http://www.pandemicflu.gov/>

Also, the WHO is providing daily updates on their site.

<http://www.cdc.gov/h1n1flu/index.htm>

The website for the Public Health Agency of Canada provides daily updates, also. Very specific to the Canadian threat.

[http://www.phac-aspc.gc.ca/alert-alerte/swine\\_200904-eng.php](http://www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php)

Literally thousands of Web pages provide information on H1N1, and many appear very alert to the ever-present threat of even newer pathogenic threats.

I suggest bookmarking key sites and checking them often. Even when this threat is past, we need to stay alert and be prepared for the next biological threat that might be just over the horizon. After all, our customers, our communities, and our own families are counting on us to be their front line of defense.

Submitted by:

Mark Warner

Product Manager – Disinfectants & Sanitizers,  
Director of Training, Regional Sales Manager  
Enviro-Solutions LTD  
[www.enviro-solution.com](http://www.enviro-solution.com)