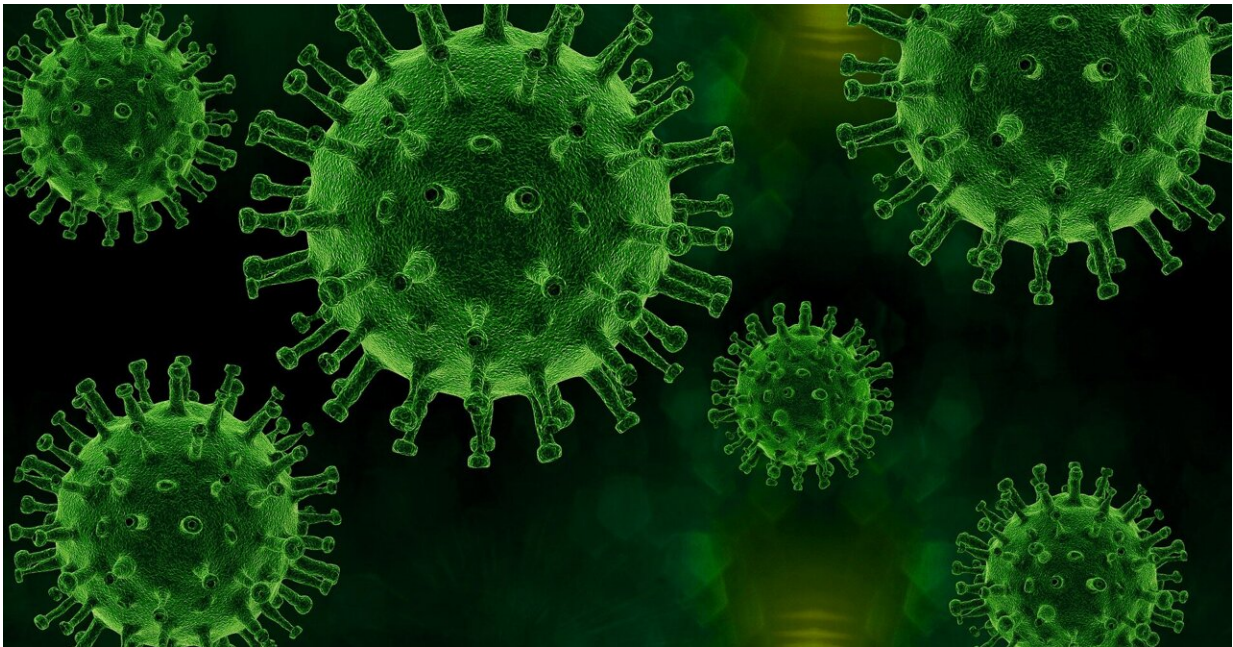


# A chemical that kills viruses might have saved lives during pandemic

November 9 2022, by Andrew Smith

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Credit: Pixabay/CC0 Public Domain

Technology that reliably kills airborne viruses inside buildings could prevent most cases of cold and flu and might have saved millions of lives during the COVID-19 pandemic, according to a Rutgers expert.

Emanuel Goldman, professor of microbiology, biochemistry and [molecular genetics](#) at Rutgers New Jersey Medical School, and other experts, including Rutgers faculty Gedi Mainelis and Don Schaffner,

published a letter in *The Journal of Infectious Diseases* arguing that Triethylene glycol—used in a variety of products since the 1940s—should be a government-approved antiviral. Recognized as safe to humans by the Environmental Protection Agency, TEG has shown to kill viruses in the air and on surfaces.

Goldman talks about why he believes the approval of TEG is long overdue and discussed how and why it could help keep people healthy.

## **What is TEG?**

It's a colorless, odorless liquid that's used in textiles and lubricants and many commercial air fresheners. It's also used to make artificial fog for theater productions and concerts. Nearly everyone has been repeatedly exposed to it throughout their lives with no signs of ill effect.

## **Does it kill all airborne viruses?**

It kills all airborne viruses that it's been tested against, including nonpathogenic surrogates of SARS-CoV-2. It also kills a variety of molds and at least some bacteria, including the one that causes tuberculosis, which also spreads through the air.

## **Could it be circulated continuously in buildings for virus control?**

At least one company—Grignard Pure—has already developed a range of products to do just that. There may be others. (Note: Goldman is an unpaid scientific adviser for Grignard Pure.)

## **How would TEG have impacted the COVID-19**

## **pandemic had it been ubiquitous in public buildings by 2019?**

My guess is that it would have stopped the pandemic before it ever started.

## **Why haven't I heard of TEG or its virus-fighting properties?**

It's illegal to advertise it or sell it nationally as a preventative indoor antiviral because it has not been approved as such. Applications have been submitted but not acted upon because our nation's regulatory agencies move at a glacial pace, even when many, many lives are on the line.

## **Is it sold anywhere as an antiviral agent?**

Seven [states](#) have given it emergency authorization under powers granted to them during the COVID-19 pandemic. I'm not aware of any national authorizations in other countries.

## **Would you use it in your own home?**

I already do. If someone from outside the family comes in, we turn on a device that disperses it throughout the house.

**More information:** Emanuel Goldman et al, Triethylene Glycol Can Be Predeployed as a Safe Virus-Killing Indoor Air Treatment, *The Journal of Infectious Diseases* (2022). [DOI: 10.1093/infdis/jiac394](https://doi.org/10.1093/infdis/jiac394)

Provided by Rutgers University

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