

Important Points Regarding Water-Based Theatrical Fog

What is it?

- “Fog”, not “smoke”.
- Tiny aerosolized droplets of deionized water and glycol.

Where else is glycol found?

- Soaps, shampoos, eye drops, nebulizers, asthma inhalers, air sanitizer mists, personal lubricants, oral medication, children’s suppositories.

How much is too much?

- ANSI recommends exposure limits of 10mg/M³ (moderately heavy haze) 8-hr Time Weighted Average (TWA), and 40mg/M³ (extremely thick clouds) Peak Exposure Limit (PEL).
- Mammalian tests found acute inhalation toxicity above 5200mg/M³ (over 100x PEL).
- “Limit doses” of 1000mg/M³ (25x PEL) “showed a lack of systemic toxicity or toxicity only at doses in excess of the limit dose. . . . Chronic exposure of experimental animals to triethylene glycol at doses equivalent to or in excess of the limit dose for such studies has shown the chemical to be without adverse toxic effects.”
- The EPA now combines Triethylene Glycol, Propylene Glycol, and Dipropylene Glycol as equivalent.
- The EPA concludes that the toxicity database for TEG, PG, & DPG is complete.

Is it harmful to children?

- ANSI and NIOSH have provided limitation recommendations. However, since they apply specifically to occupational environments, only speak of exposures to ages 18 and up. This is not to be mis-construed as meaning it is harmful to those under 18 years old.
- The EPA has determined that “There are no indications of special sensitivity of infants or children resulting from exposure to triethylene glycol. ...The Agency has no risk concerns for triethylene glycol with respect to human exposure.”

What symptoms can occur from exposure?

- Glycol attracts and absorbs water. Although not dangerous, heavy or prolonged exposure can cause temporary dry mouth and dry eyes, easily remedied by drinking water.
- In rare cases, some people have a heightened sensitivity to glycol and experience itchy watery eyes and irritated sinuses. Again, this effect is temporary with no permanent harmful effects.

Can theatrical fog help the transmission of Covid and other pathogens?

- Numerous peer-reviewed medical journal reports repeatedly establish that TEG, PG, and DPG have rapid anti-microbial characteristics. Recent studies by Microchem Labs revealed that 99% of viruses stronger than Covid are destroyed in one minute of exposure.