Our Featured Initiatives

Indoor Air Quality

Top 10 Series: VOCs In the Indoor Air

Acetaldehyde is a commonly occurring volatile organic compound (VOC) in the indoor air and is the most frequently found VOC emission from paints and coatings, furniture, sealants and adhesives. Its indoor levels are typically two to four times higher than those found in the outdoor air where combustion sources are numerous. Acetaldehyde is a probable carcinogen and developmental toxin. Review our technical brief here.

Wildfires

Chemical Insights Releases New Report on DIY Air Cleaners

With the increasing threats of wildfires and their impact on the urban interface, portable air cleaner demand has increased. Some local health agencies are recommending Do-It-Yourself (DIY) air cleaners as an affordable and accessible alternative to commercially available air cleaners.

To evaluate safety concerns, Chemical Insights together with assistance from the U.S. EPA evaluated the use of box fans retrofitted with particulate filters for their fire risks. Potentials of fan overheating and ignition were studied for various filter dust and soot loadings.

Read the report, "An Evaluation of DIY Air Filtration," on the website now.

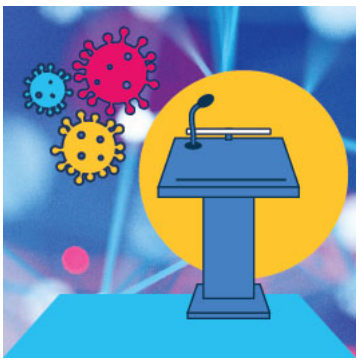
3D Printing

New Research Data on 3DP Filtration

Our research initiative on the release of chemical and particle emissions from 3D printing continues to demonstrate the potential for adverse human health effects. In addition to VOC exposure, fine and ultrafine particle exposure risks exist. Preventing human exposure is recommended.

Read our newest research report, "Filtration Strategies for Reducing Chemical and Particle Emissions from 3D Printing," where we have evaluated particle and chemical removal using carbon based and HEPA filters.

Conference Presentation



Chemical Insights Presents at GA4LE on Indoor Air Quality

As we re-enter our schools, it has never been more important to design, operate and manage buildings with a focus on good indoor air quality (IAQ) to protect the health of students and staff.

New technologies and challenges bring unintended consequences for human health. Researchers at Chemical Insights are evaluating the impact of emerging technologies, such as 3D printers, on IAQ. The organization is also considering how new COVID-19 protocols intersect with IAQ, both elevating its importance and providing potential new challenges.

On June 28, Dr. Marilyn Black, on behalf of Chemical Insights, participated in the Georgia Chapter of the Association for Learning Environments' Summer Conference in Jekyll Island. Our presentation, "Keeping School Buildings Healthy: Emerging Issues in Managing for Occupant Safety and Health," focused on how to prioritize IAQ, reveal what research found, and focus on how to mitigate unintended consequences.

The session also explored common real-life scenarios specific to schools for determining mitigation strategies that are effective, practical, and safe.

Recent Publications and Upcoming Events

- Technical Brief: Acetaldehyde
- SafeWise Podcast, "The Ugly Truth About Flame Retardants with Dr. Marilyn Black"
- Report, "An Evaluation of DIY Air Filtration"
- Chemical Insights 2021 Bibliography
- From July 26-28, we participated in the 68th Campus Safety, Health, Environmental Management Association (CSHEMA) Annual Virtual Conference. Our virtual booth provided insight into our current 3D printing research initiative, IAQ, and results from multi-year studies with Georgia Institute of Technology.