Chemical Insights
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Foresight

Highlighting Chemical Insights' Research and Education for Safer Environments and Healthier People

Our Featured Initiatives

Indoor Air Quality

Top 10 Series: VOCs in the Indoor Air

The common air pollutant, xylene, is found in the indoor environment. This VOC is primarily associated with adhesives, coatings, and some industrial strength cleaners. Xylene can also be associated with combustion sources including environmental tobacco smoke and vaping and can be released from some materials during 3D printing. Common indoor air health effects from exposure to xylene include eye, nose, throat, and lung irritation, headache, dizziness, and nausea. Read more in our recent technical brief, "Xylene – A Common Air Pollutant."

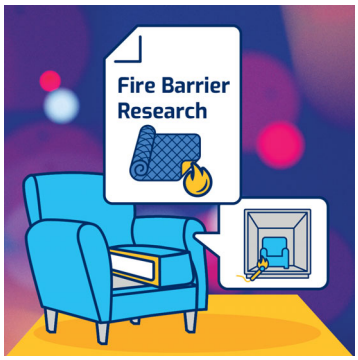
CIRI Confirms Commitment to Studying Human Health

Risks from Chemical Exposure

Press Release

CIRI recently confirmed its commitment to identifying human health threats and delivering the highest quality chemical, and other pollutant exposure, research for insights to improve people's lives. CIRI leads innovative research on emerging technologies, studies how these exposures create threats to human health, and evaluates strategies for reducing risks. As a research institute of Underwriters Laboratories and part of a 128-year legacy of trusted science, CIRI benefits from the recently announced $1.8 billion commitment to global safety science research. With this investment, CIRI, in collaboration with the other research institutes of Underwriters Laboratories, will expand its focus on discovery across a broad range of critical fields. Read the full press release for more information.

Furniture Flammability



Application Notes

CIRI released its first Application Notes, "Specifying Upholstered Furniture Fire Barriers" for interior designers, specifiers, and manufacturers. It features information on fire barriers, including how they can protect people from both fire and chemical hazards and what specific performance criteria should be considered. Upholstered furniture is the leading item to ignite in residential fires that result in death. During a home fire, fire barriers can provide valuable time for occupants to evacuate and for first responders to arrive and extinguish the fire. When fire barriers are incorporated in the design of upholstered furniture, without the use of flame retardants, they can improve fire and chemical safety and potentially save lives.

3D Printing

Local School Prints Buddy Bears Using 3D Printers CIRI Installed

A science, technology, engineering, arts and mathematics (STEAM) performance-based learning project with Coretta Scott King school in Atlanta used 3D printers installed by CIRI to create Buddy Bears, inspired by the Berlin Bears.

Since 2021, CIRI has partnered with schools to understand and assess the indoor environment while 3D printing in classrooms. As part of this study, CIRI installs 3D printers, trains the staff to use, and conducts indoor

air quality studies during operation of the 3D printers. Research results on field exposure will become available.

CIRI Happenings

Welcome Cristi Bell-Huff

Cristi Bell-Huff, PhD, joined CIRI as a Research Program Manager to help manage, track, and communicate CIRI's research initiatives. Dr. Bell-Huff previously served as the director of faculty and student training in the Coulter Department of Biomedical Engineering at Georgia Institute of Technology. She holds a PhD and MS in Chemical Engineering from Purdue University, an MA in Education from the University of Michigan, and a BS in Chemical Engineering from the University of Tennessee-Knoxville. Welcome Cristi!

Bibliography Release

CIRI continues its tradition of excellence and published expertise. Our updated bibliography features more than 70 new citations including scientific journal publications, conference proceedings, technical reports, e-learning modules and videos, and other key articles that highlight CIRI's research.

Global Partnership with the Society of Toxicology

CIRI is excited to announce that we are a Global Partner with the Society of Toxicology (SOT). Our years of specific research experience on pollution and its human health impact support SOT's mission of "creating a safer and healthier world by advancing the science and increasing the impact of toxicology." We look forward to meeting many SOT members during the 61st Annual Meeting and ToxExpo on March 27-31, where Christa Wright, PhD will present, "The Unknowns of Vaping: Oxidative Stress, Toxicity, and DNA Damage across the Device Lifetime" on Thursday, March 31 at 10 a.m.

Recent Publications and Events

1. Technical Brief, “Xylene – A Common Air Pollutant."
2. Press Release, "Chemical Insights Research Institute Confirms Commitment to Studying Human Health Risks from Chemical Exposure."
3. Application Notes, “Specifying Upholstered Furniture Fire Barriers.”

Visit us to hear about our research at conferences:

1. ACS Spring 2022, Mar. 20-24, 2022,"Indoor Air Quality Assessment of Classrooms with 3D Printers."
2. SOT 61st Annual Meeting and ToxExpo, Mar. 27-31, 2022, “The Unknowns of Vaping: Oxidative Stress, Toxicity, and DNA Damage across the Device Lifetime.”
3. NSTA National Conference, Mar. 31 – Apr. 2, 2022, “Achieving Good Indoor Air Quality.”