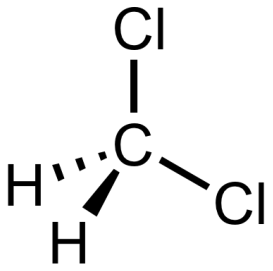
The University of Akron EOHS Safety Newsletter

September 2026

Appeals Court Vacates EPA Rule Banning Most Uses of Dichloromethane (DCM)

On Tuesday, September 15th, the Fifth Circuit Court of Appeals vacated the 2024 EPA rule banning most consumer and industrial uses of DCM, a common laboratory solvent and ingredient in commercial paint stripper. The rule also required the implementation of a Workplace Chemical Protection Program (WCPP), including air monitoring testing for all laboratory workers that would use DCM. Although it is possible that the EPA will attempt to issue revised rules concerning DCM use, the WCPP and exposure monitoring requirements have been alleviated on campus. If new rules are issued, affected laboratory workers should expect to receive communication from EOHS about the requirements for compliance. Interested readers can access a news article detailing the ruling at this link.



For those researchers who will continue to use DCM in their laboratories, please keep in mind that use of a fume hood is essential for safety with this solvent. The vacating of the EPA rule does not indicate that there aren't hazards associated with DCM, including irritation of exposed skin and/or mucous membranes, potential for CNS depression via inhalational exposure (drowsiness or dizziness), and DCM's continued suspicion of being a carcinogenic substance. DCM is highly volatile and vapors are heavier than air, causing them to pool at ground level or inside of containers, vats, drums, or tubs. In these cases, the vapors can act as simple asphyxiants by displacing air, a topic which is covered in the EOHS annual laboratory safety training presentation. **Remember to perform handling and work with DCM inside of a certified fume hood, including rotovaps!** Do not handle DCM on open benchtops, as the volatility can lead to overexposures and will require exposure monitoring. Where possible, substitution with a less hazardous solvent is still recommended.

Laboratory Safety Headline: Hokkaido University HF Incident

On August 27, 2026, a graduate student at Hokkaido University in Sapporo, Japan was fatally injured after a severe exposure to hydrofluoric acid (HF). Two other graduate students who attempted to assist the exposed individual sustained minor injuries. While an investigation into the cause of the accident is still ongoing, this incident serves as a solemn reminder of the hazards of toxic corrosive materials, including HF and tetramethylammonium hydroxide (TMAH). Both HF and TMAH are acutely toxic and have wide applicability in etching, catalysis, and photolithography. Fortunately, calcium gluconate gel works as a specific antidote for HF exposure, as it binds the fluoride anion and prevents the progression of chemical burns and systemic toxicity. TMAH, on the other hand, does not have a specific antidote, and it is strongly advised that it be substituted for a less toxic alternative.



Researchers who use or plan to use HF are strongly encouraged to contact EOHS for a review of their lab space to ensure adequate ventilation, the presence of emergency response equipment (safety showers, eyewashes, and calcium gluconate), and emergency procedures. Details about the Hokkaido University incident are still being gathered, but it was reported that two additional students who attempted to help the exposed individual were also exposed to HF. In any chemical exposure, those who render aid must wear appropriate PPE and protect themselves first. Critical factors affecting the outcome of these incidents include the concentration of the chemical involved, the duration of exposure, and the body surface area exposed to the chemical. After an HF exposure, an emergency shower or eyewash should be used for 10 minutes (different from the typical 15 minute prescription) before applying calcium gluconate to the affected area. On campus, any HF exposure warrants a call to 911 for emergency responders to assess and evaluate the individual(s) exposed. Interested readers can access the C&EN article detailing this incident at this link. Please contact asm97@uakron.edu with questions about HF or TMAH use and emergency response in the event of an exposure.

Unattended Experiments

Stepping away from your experiment to go to lunch? Need to leave a process running over the weekend? Be sure to fill out and submit an Unattended Experiment Notice! In the event that building power, water, or exhaust is lost while you're away, we can notify you if your experiment may be impacted. Download the form from the EOHS site.

Laboratory Waste Pickup Form

Are your laboratory waste containers getting full? Be sure to submit a Waste Pickup Request and have them replaced! EOHS will remove the full waste containers and replace them accordingly with empty flammable or aqueous 5-gallon drums. Contact Dr. Mike DeBord (mad151@uakron.edu) with specific waste questions.