Deaths rising in workers using methylene chloride paint strippers

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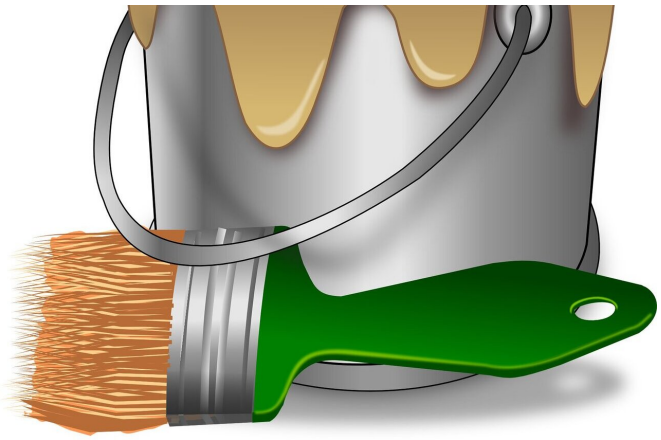

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Researchers and physicians from the Occupational Safety and Health Administration (OSHA) and UC San Francisco have found that deaths of workers using methylene chloride paint strippers are on the rise. The solvent is widely used in paint strippers, cleaners, adhesives and sealants.

The study is the first comprehensive review of fatalities linked to the deadly chemical in the United States and identified more deaths than previously reported.

The Environmental Protection Agency (EPA) has acknowledged 53 fatalities connected to the chemical from 1980 to 2018. The new study identified 85 deaths over the same period, most of them occurring in occupational settings (87 percent). The study is published April 19, 2021, in *JAMA Internal Medicine*.

The authors urged action from the EPA to limit use of the chemical and prevent future deaths.

"It is unacceptable that these workers died simply because they were doing their job," said lead author Annie Hoang, a UCSF medical student and research fellow at UCSF's Program on Reproductive Health and the Environment. "I hope the EPA will do its job to protect our workers and save lives."

The researchers believe that methylene chloride fatalities are undercounted in the United States due to fragmented public health reporting. To identify deaths from the chemical, the researchers undertook a massive search of different sources, including published scientific papers and government databases, compiling information that included medical records and autopsy findings, where available. Their analysis found an increase since 2000 in occupational fatalities related to both paint stripping and to bathroom construction, due to stripping bathtubs.

In early 2017, EPA proposed a rule banning almost all methylene chloride strippers in both the workplace and for consumer use. But in 2019 under new leadership, EPA limited the ban to consumer products while still allowing commercial use to continue unchecked.

"Based on our findings, workers are still at risk from methylene chloride products," said Kathleen Fagan, MD, MPH, former Medical Officer in the Office of Occupational Medicine and Nursing at OSHA and one of the study's researchers. "Health care providers have a critical role to play in preventing deaths by counseling at-risk patients on risk reduction and providing resources on safer alternatives to methylene chloride."

The paper reported that while regulatory policies over the last 25 years mandated product labeling and worker protections, fatalities continued during that time, with a higher proportion of recent deaths tied to the use of paint stripping products. The vast majority of deaths were among men (93.8 percent). Of the 85 fatalities, in 70 cases that had specific information about age, the median age was 31.

The researchers concluded that despite regulatory efforts to address the toxicity of methylene chloride for consumers and workers, fatalities are continuing in the U.S., particularly in occupational settings. They said that prevention should emphasize safer substitutes, not hazard warnings or reliance on personal protective equipment.

"Safer alternatives to methylene chloride are available and in widespread use," said senior author Veena Singla, Ph.D., a senior scientist at the Natural Resources Defense Council. Previously, she was director of science and policy with UCSF's Program on Reproductive Health and the Environment.

"The science is clear," Singla said. "It is past time to eliminate this deadly chemical and prevent any further tragic loss of life."

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