# Health & Safety

## EPA Final Risk Evaluation for Methylene Chloride

Methylene chloride, a once-common ingredient in commercial paint strippers used in conservation, has been the subject of a series of restrictions over the past few years due to health and safety concerns. In July 2022, the EPA released a draft risk evaluation for methylene chloride which proposes that methylene chloride presents an unreasonable risk to human health. After receiving public comment and publishing a final version, the EPA will introduce further regulations to limit the manufacture, distribution, and disposal of methylene chloride (EPA 2022a).

The EPA considered hazards and exposure, magnitude of risk, exposed population, severity of the hazard, uncertainties, and other factors in making this determination. In their assessment, the EPA evaluated the effects of methylene chloride on workers, occupational non-users (individuals nearby who were not using the material directly), consumers, and bystanders (EPA 2022a). 52 out of the 53 evaluated conditions of use in industrial, commercial, and consumer contexts were demonstrated to cause an unreasonable risk to human health. All consumer uses of methylene chloride were found to cause unreasonable risks, including use as solvent, in adhesives, in brush cleaners, an as adhesive and caulk removers. The primary health risks identified for methylene chloride were neurotoxicity from short-term exposure and liver effects and cancer from long-term exposure (EPA 2022b, 6). The primary routes of exposure were inhalation and dermal exposure. Methylene chloride is highly volatile and can have severe health effects with short term exposure (under 1 hour); this was a key consideration in the EPA's evaluation of the level of risk (EPA 2022b, 8). The EPA did not find any unreasonable risks to the environment in any evaluated conditions of use.

The findings of the 2022 EPA risk evaluation demonstrate that conservators should discontinue the use of methylene chloride. Disposal methods vary by state; local regulations should be consulted for more information.

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### References

EPA. 2022a. "Final Risk Evaluation for Methylene Chloride." United States Environmental Protection Agency. Accessed July 18, 2022. https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/final-risk-evaluation-methylene-chloride

EPA. 2022b. "Methylene Chloride – Draft for Public Comment." United States Environmental Protection Agency. Accessed July 18, 2022. https://www.epa.gov/system/files/documents/2022-07/Methylene%20Chloride%20Revised%20Risk%20Determination.pdf.

## Meet Your Match: Storage of Matches in Collections

Conservation professionals may encounter any number of hazardous materials in collections. Items that are familiar from household use may at first seem innocuous, but on second glance warrant additional attention to mitigate health and safety risks in a collections setting. Matches, occasionally found in museum collections and archives, are one such example. Questions about health and safety risks associated with matches, particularly concerning their flammability, have been the subject of several blog posts and discussions on professional forums in recent years. This article attempts to address some of these open questions by examining the risks associated with chemicals used historically in the matchmaking industry and proposing best practices for storage.