

November 12, 2017

Comments from Academics, Scientists and Clinicians on Methylene Chloride in Commercial Furniture Refinishing

Submitted online via *Regulations.gov* to docket EPA-HQ-OPPT-2017-0139

These comments are submitted on behalf of the undersigned academics, scientists, and clinicians. We declare collectively that we have no direct or indirect financial or fiduciary interest in any chemical or product that is the subject of these comments. The co-signers' institutional affiliations are included for identification purposes only and do not imply institutional endorsement or support, unless indicated otherwise.

We appreciate the opportunity to provide written comments on the use of methylene chloride for paint and coating removal in commercial furniture refinishing. Methylene chloride is a solvent produced at more than 260 million pounds every year with a variety of consumer, commercial and industrial uses.¹ Products containing this ingredient are readily purchased at hardware and retail stores across the country. Consumer and occupational exposures to methylene chloride are associated with serious health impacts including death, liver toxicity, kidney toxicity, reproductive toxicity, cognitive impairments, brain cancer, liver cancer, non-Hodgkin's lymphoma and multiple myeloma.² The fact that this chemical has caused at least 40 documented consumer and worker deaths since 1976³ lends particular urgency to EPA's actions. As noted by the Centers for Disease Control and Prevention, adverse health impacts go far beyond just the affected individual:

"Every person who dies young, is avoidably disabled, or is unable to function at their optimal level represents not only a personal and family tragedy but also impoverishes our communities and our country. We are all deprived of the creativity, contributions, and participation that result..."⁴

The science is clear that methylene chloride is dangerous and that restriction of uses is the most effective way to remove risks of concern and prevent further tragedies.

Our comments address the following main points:

- 1. EPA should immediately finalize the proposed rule to prohibit methylene chloride in paint and coating removal uses.**
- 2. Labeling and/ or personal protective equipment (PPE) are inadequate to mitigate the risks of methylene chloride.**

¹ EPA (2017) Scope of the Risk Evaluation for Methylene Chloride (Dichloromethane, DCM). Office of Chemical Safety and Pollution Prevention.

² EPA (2014) TSCA Work Plan Chemical Risk Assessment Methylene Chloride: Paint Stripping Use. CASRN 75-09-2. Office of Chemical Safety and Pollution Prevention.

³ Methylene Chloride and N-Methylpyrrolidone: Regulation of Certain Uses Under TSCA Section 6(a). 82 Fed. Reg. 7464-7533 (Jan. 19, 2017)

⁴ Centers for Disease Control and Prevention. CDC Health Disparities and Inequalities Report — United States, 2013. Morbidity and Mortality Weekly Report, Supplement, Vol. 62 No. 3 Nov. 22, 2013.

3. EPA should propose and quickly finalize a rule to prohibit methylene chloride in commercial furniture refinishing.

We are appreciative of the opportunity to provide public input. Please do not hesitate to contact us with any questions regarding these comments.

Sincerely,

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DETAILED COMMENTS

1. EPA should immediately finalize the proposed rule to prohibit methylene chloride in paint and coating removal uses.

In 2014 EPA completed a risk assessment of methylene chloride paint stripping uses and found significant risks. The highest risks were to workers, with acute risks of death, incapacitation and neurological effects even when respiratory protection was used, and cancer risk 10-1000 times greater than the benchmark of concern. EPA estimated that over 230,000 workers are directly exposed to methylene chloride in paint stripping uses.⁵ On January 19, 2017, EPA proposed a rule to prohibit methylene chloride in consumer and most commercial paint and coating removal uses.⁶

We previously commented on the need to comprehensively evaluate exposures to chemicals and “conditions of use,” as that term is defined in the Toxic Substances Control Act (TSCA), as amended by the Frank R. Lautenberg Chemical Safety of the 21st Century Act (Lautenberg TSCA).⁷ As detailed in those comments, this comprehensive consideration of condition of use is required to accurately assess exposures and estimate real-world risks. However, because EPA completed the paint stripping assessment prior to the Lautenberg amendments and found such significant risks of concern, we believe the scientifically appropriate and ethical course of action is to finalize the proposed rule immediately, while moving forward with the comprehensive evaluation of methylene chloride as required by Lautenberg TSCA.

2. Labeling and/ or requirements for personal protective equipment (PPE) are inadequate to mitigate the risks of methylene chloride.

EPA concluded after a 2016 study on labeling effectiveness for hazardous chemicals that methylene chloride risks could not adequately be reduced by product labeling.⁸ EPA evaluated 48 studies or meta-analyses and found that the primary factors influencing whether a user understands label information are the users’ literacy and numeracy, which frequently correlate with the users’ education and income.⁹ Therefore, people with less education, lower income, and less advanced literary skills will be the most likely to not understand label instructions. Even if workers do understand label instructions, they may not be in a position to ask for appropriate PPE and/ or respiratory protection from their employer. In addition, the appropriate PPE (supplied air respirators, EVOH/ PE laminate or PVA gloves) are usually not available in retail stores and cannot feasibly be used by most consumers and workers. In a recent case, a

⁵ EPA (2014) TSCA Work Plan Chemical Risk Assessment Methylene Chloride: Paint Stripping Use. CASRN 75-09-2. Office of Chemical Safety and Pollution Prevention.

⁶ Methylene Chloride and N-Methylpyrrolidone: Regulation of Certain Uses Under TSCA Section 6(a). 82 Fed. Reg. 7464-7533 (Jan. 19, 2017)

⁷ UCSF PRHE, et al. (2017) Comments from Academics, Scientists and Clinicians on the Risk Evaluation Scoping Efforts Under TSCA for Ten Chemical Substances. Available on Regulations.gov, document ID: EPA-HQ-OPPT-2016-0742-0070

⁸ Methylene Chloride and N-Methylpyrrolidone: Regulation of Certain Uses Under TSCA Section 6(a). 82 Fed. Reg. 7464-7533 (Jan. 19, 2017)

⁹ US Environmental Protection Agency (EPA). 2016. “The Effectiveness of Labeling on Hazardous Chemicals and Other Products.” Office of Chemical Safety and Pollution Prevention. RIN 2079-AK07.

21 year old man was wearing a cartridge respirator when he died stripping a bathtub with methylene chloride for his family's business.¹⁰

3. EPA should propose and quickly finalize a rule to prohibit methylene chloride in commercial furniture refinishing

EPA did not propose prohibiting methylene chloride for commercial furniture refinishing in the Jan. 19 2017 rule, despite the fact that it evaluated these uses in the 2014 assessment and found significant risks of concern for workers in this sector, estimated to be about 15,000 total.¹¹ In the 2014 assessment, even with the assumption that workers wore a respirator, risks of concern were found for:

- Acute incapacitating effects (workers and bystanders)
- Liver toxicity (workers and bystanders)
- Cancer, 200-800 times greater than 1 in a million benchmark (workers and bystanders)

For the reasons discussed above, prohibition of methylene chloride use in commercial refinishing is the most effective way to remove these risks of concern. EPA should propose, and then finalize as quickly as possible, a rule to prohibit methylene chloride in commercial furniture refinishing while it moves forward with the comprehensive evaluation of methylene chloride under Lautenberg TSCA.

Widespread exposures to methylene chloride are avoidable as less toxic and equally effective alternatives to this risky chemical already exist.¹² Methylene chloride has been effectively banned in the European Union since 2012.¹³ Unless EPA acts to finalize a ban in paint and coating removal uses and commercial furniture refinishing, there will continue to be avoidable deaths and other serious, long-term health consequences that result from these exposures. Therefore, we strongly urge EPA to finalize these bans as soon as possible to ensure public health protection.

¹⁰ Goodman, Brenda. "Mother Questions Use of Chemical After Son's Death." July 14, 2017. Available: <https://www.webmd.com/lung/news/20170714/mother-questions-use-of-chemical-after-sons-death>

¹¹ EPA (2014) TSCA Work Plan Chemical Risk Assessment Methylene Chloride: Paint Stripping Use. CASRN 75-09-2. Office of Chemical Safety and Pollution Prevention.

¹² California Department of Public Health. "Occupational Health Hazard Alert: Methylene Chloride in Paint Strippers and Bathtub Refinishing." Available: <https://www.cdph.ca.gov/Programs/CCDC/PHP/DEODC/OHB/HESIS/CDPH%20Document%20Library/MethyleneChlorideAlert.pdf>

¹³ Methylene Chloride and N-Methylpyrrolidone: Regulation of Certain Uses Under TSCA Section 6(a). 82 Fed. Reg. 7464-7533 (Jan. 19, 2017)