



# HSIA

halogenated  
solvents  
industry  
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## **RECENT MEDIA REPORTS FALSELY IDENTIFY ALTERNATIVES TO METHYLENE CHLORIDE-BASED STRIPPERS AS EQUALLY EFFECTIVE AND SAFER**

Methylene chloride based paint removers are the best products for efficient and effective paint removal and are safe when used as directed. In fact, methylene chloride paint removers were developed to prevent injuries from fires that occurred while stripping paint using other chemicals.

Recent media reports point to alternative chemistry options and falsely identify these alternatives as equally effective and safer than methylene chloride. One report highlights an alternative developed by the University of Massachusetts Lowell Toxics Use Reduction Institute (TURI) which uses a blend of methyl acetate, dimethyl sulfoxide (DMSO) and thiophene that allegedly “works about the same, and is safer,” according to Michael Ellenbecker, Director of TURI at UMass. Unfortunately, the report does not address significant shortcomings of the alternative formula, including its flammability, potential toxicity and efficacy. These concerns are known to the product’s developers but not to the general public.

The three major concerns are as follows:

First is the proposed alternative formula’s flammability. TURI’s proposed formula would be categorized as Flammable/Extremely Flammable with a flash point well below room temperature. In contrast, methylene chloride is classified as non-flammable and methylene chloride based paint strippers were developed to reduce or eliminate injuries and deaths associated with flammable products. Flammable and combustible liquids result in approximately 450 deaths in the United States each year (NFPA data)<sup>1</sup> thus presenting a greater potential hazard than methylene chloride use. In addition, methyl acetate and thiophene, both used in TURI’s formula, are highly volatile chemicals that should not be used in enclosed spaces (i.e., bathtub refinishing).

Second is the concern for toxicity of one of the major components of the TURI formulation, thiophene. Thiophene is very toxic following acute inhalation exposures in animal studies, is regarded as a skin and eye irritant, and has not been evaluated for carcinogenic potential in animal studies. An occupational exposure limit for thiophene has not been established.

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<sup>1</sup> Hall, Jr., John R., “Fires Starting with Flammable Gas or Flammable or Combustible Liquid,” National Fire Protection Association, Fire Analysis and Research Division, February 2014

Third is the efficacy of the proposed alternative. The exact TURI formulas have not been made commercially available, so different blends of chemicals are being evaluated to attempt to maximize product efficacy. As a minimum of 50% of the formula must be methyl acetate to meet volatile organic compound (VOC) requirements, potential variations of the proposed chemical blend are limited. Moreover, blends representing TURI's proposed formula were ineffective on chemically resistant coatings such as epoxy, which can be readily removed using methylene chloride-based products. In fact, TURI's own research<sup>2</sup>, presented at an EPA workshop in Boston in 2017, demonstrated that the proposed alternative formulas are not as effective as methylene chloride.

These three concerns – flammability, toxicity, and efficacy – are serious barriers to commercial and consumer use of the proposed TURI alternative formulas.

HSIA and industry stakeholders are working hard to educate the public regarding the benefits of proper labeling to reduce any misuse of volatile chemicals to strip bathtubs. HSIA worked with the Consumer Product Safety Commission (CPSC) to develop a new labeling standard that would include a clear pictogram and strong statements in English and Spanish that warn against the use of methylene chloride-based products in bathtub refinishing and petitioned the CPSC to adopt the updated guidance. CPSC recently indicated that it will soon issue a revised Statement of Enforcement Policy making this label nationally applicable. Specific labeling directions and multi-lingual warnings can improve understanding and change consumer behavior.

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<sup>2</sup> [https://www.turi.org/content/download/10972/179493/file/2017%20Report%20102%](https://www.turi.org/content/download/10972/179493/file/2017%20Report%20102%20Final.pdf)