



MARYLAND ENVIRONMENTAL HEALTH NETWORK

House Bill 0299- Public Health - Sale and Distribution of Products Containing NMP and DCM - Prohibition

Committee:

Health and Government Operations

February 13, 2019

Position: SUPPORT

The Maryland Environmental Health Network supports bills that are consistent with scientific research in the fields of public and environmental health, and those which advance social justice and equity. Marylanders are more likely to achieve health and longevity when we live in environments of clean air, and water, strong local economies, and meaningful community engagement in policy-making. As a statewide network we draw on a diverse constituency of health advocates and professionals, educators, researchers, and community members to evaluate legislative proposals. For these reasons, we heartily support House Bill 0299 banning the sale or distribution of any paint or coating removal product that contains dichloromethane or distribution methylene chloride and/ or N-Methylpyrrolidone to protect human health.

Dichloromethane, made from methane gas or wood alcohol is a dangerous hazardous substance.¹ The Centers on Disease control definition describes it as a colorless liquid that has a mild sweet odor, evaporates easily, and does not burn easily. Its destructive power is magnified when it is converted to use as an aerosol or pesticide, but it is widely used as an industrial solvent and as a paint stripper.² The use and application as directed is harmful to the environment, and to human health because rather than repel the senses they attract, and can remain in the water and soil where they can be concentrated with other substances magnifying the danger of spills, and leaks. This substance *does not degrade over time* even if it changes form and scatters over a period of months.

As an environmental matter it is a compound threat to climate derived from and contributing to the most potent greenhouse gases in the atmosphere when it is converted by bacteria. Most importantly, it is found in drinking water and surface soil which can return it to the air and redouble its impact. Humans come into contact with it by breathing it in at home, work or in the environment. The CDC has stated that over 70% of the substance enters your bloodstream and quickly spreads throughout your body, with most of it going to the liver, kidney, brain, lungs, and fatty tissue. Bodies with more fat deposits and bodies experiencing greater amounts of exercise are likely to hold onto the substance. This means that almost any state of being human will increase the likelihood that the elements remain in your body.

The greatest chance of exposures to these substances usually occurs the workplace, and in the home but in particular where it is used in an enclosed space without adequate ventilation. People who work with it can breathe in the chemical or it may come in contact with their skin. The National Institute for Occupational Safety and Health (NIOSH) estimates that 1 million workers may be exposed to methylene chloride.

¹Chemical Structure, <https://pubchem.ncbi.nlm.nih.gov/substance/223921461#section=Depositor-Supplied-Patent-Identifiers>

² Agency for Toxic Substances and Disease Registry (ATSDR). 2000. Toxicological profile for Methylene Chloride. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.



As a public health organization, we are sensitive to the intersection of toxic exposures and psycho social stress which impact the long-term resiliency of communities.³ The chameleon like properties of dichloromethane, lend itself to multiple sources of exposure and increased likelihood that a exposed worker may experience dizziness, nausea, tingling or numbness of the fingers and toes, and a feeling of drunkenness if you breathe methylene chloride for a sufficiently long period of time. Similarly, direct skin contact with large amounts of methylene chloride causes intense burning and mild redness of the skin.

Agencies tasked with classification of this substance cautiously warn of risks of cancer related to use of products containing dichloromethane. The Department of Health and Human Services (DHHS) has determined that it may reasonably be anticipated to be a cancer-causing chemical. The International Agency for Research on Cancer (IARC) has classified methylene chloride in Group 2B, possibly causing cancer in humans. The EPA has determined that methylene chloride is a probable cancer-causing agent in humans.⁴

Similarly, N-Methylpyrrolidone, also known as NMP or 1-methyl-2-pyrrolidone, is a solvent used in a range of products. Typically they are used to remove paint or a coating. The average consumer will encounter it in paint strippers, even though safer alternatives exist and are in development. NMP has been closely linked to multigenerational and gestational developmental and reproductive health impacts.

While agencies on point have most recently been uncomfortably silent on these compounds, we urge the Committee to take up the precautionary principle, which asks decisionmakers to err on the side of the least harm when questions of human health are still being resolved. With all that is at stake, we should be unwilling to introduce harm into our supply chain when there are safer alternatives in the marketplace.

Maryland has been the first to make innovations in several areas of health and the environment and should take this opportunity to make another step towards a cleaner environment for all. Implementing this ban is not only a benefit to our environment, but also promotes the public health of Marylanders by eliminating exposure to toxic substances and their carcinogenic effects. We support a ban on DCM and NMP and request a favorable report from this committee in furtherance of commonsense, statewide health protections for the most vulnerable.

Thank you for your consideration.

A handwritten signature in black ink, appearing to read "Tamara Toles O'Laughlin". The signature is stylized and fluid.

Tamara Toles O'Laughlin
Executive Director
Maryland Environmental Health Network

³ A Framework for Examining Social Stress and Susceptibility to Air Pollution in Respiratory Health <https://ehp.niehs.nih.gov/wp-content/uploads/117/9/ehp.0900612.pdf> Accessed February 1, 2019

⁴ US EPA Fact Sheet: Methylene Chloride or Dichloromethane (DCM), https://www.epa.gov/sites/production/files/2017-04/documents/fact_sheet_methylene_chloride_or_dichloromethane_dcm.pdf, Accessed January 1, 2019