



February 11, 2020

**Committee:** Senate Education, Health and Environmental Affairs  
**Bill:** SB 300: Pesticide – Use of Chlorpyrifos – Prohibition  
**Position:** Favorable

Chesapeake Physicians for Social Responsibility urges the House Environment and Transportation Committee to pass a favorable report on SB 300 which would prohibit the use of the pesticide chlorpyrifos in Maryland.

Chlorpyrifos is a neurotoxic pesticide used in U.S. agriculture to kill a variety of agricultural pests. It puts the developing brains of fetuses, infants and young children at risk and its use on food crops leads to levels in food and water that far exceed safety standards.

Chesapeake PSR supports SB 300 because the scientific evidence lending support to a ban on chlorpyrifos is overwhelming. The clear weight of the evidence confirms that chlorpyrifos is toxic to developing brains of our children, and the developmental damage caused by chlorpyrifos to children is likely irreversible.

Chesapeake PSR would like to highlight a few conclusions that U.S. EPA and other scientists have drawn from 20 years of toxicology and human epidemiology evidence regarding the safety of chlorpyrifos:<sup>1</sup>

- The mechanism of damage is more complex than simply through decreased levels of acetylcholinesterase (AChE), and damage to brains may occur even though levels of AChE are normal
- Dietary exposure to chlorpyrifos exceeds what is safe for all people but especially for children and for infants 1-2 years old, the levels are estimated to be 140 times levels that are safe!
- Exposure to chlorpyrifos in drinking water also exceeds safe levels;
- Exposure to chlorpyrifos in utero is linked to low birthweight, shorter gestation, ADHD, autism, lower IQ scores, memory and other neurodevelopmental issues in children.

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<sup>1</sup> Revised Human Health Risk Assessment for Registration Review; Nov. 3, 2016: EPA-HQ-OPP-2015-0653-0454. <https://www.regulations.gov/document?D=EPA-HQ-OPP-2015-0653-0454>.

Additionally, in adults there are worrisome reports from other studies, some more recent than the EPA report:

- Use of chlorpyrifos in women farmers exposure in another study was shown to be associated with an increase risk of breast cancer in one recent study<sup>2</sup> and exposure was associated with breast cancer in another study<sup>3</sup>
- Parkinson Risk has been associated with exposure to chlorpyrifos in animals and humans and recent evidence suggests certain genetics increase that risk<sup>4</sup>

The Environmental Protection Agency (EPA) proposed a federal ban based on significant risk to fetuses and children, after their scientists review of the data. This conclusion was supported by the U.S. EPA's 2016 Chlorpyrifos Revised Human Health Risk Assessment for Registration Review which indicated that expected exposure to chlorpyrifos from food crop residues exceeds the safety standard established under the Federal Food, Drug and Cosmetic Act.

However, in an unprecedented move, Scott Pruitt, U.S. EPA's new Administrator under the Trump Administration, overruled the recommendations of U.S. EPA's scientific advisors and reversed the agency's decision to ban this toxic pesticide.

A federal court order to the Environmental Protection Agency to ban chlorpyrifos, is now tied up in the Courts. The European Union has banned the pesticide and so has Hawaii and California. In California, a commission has been formed to study and help farmers with safer alternatives to chlorpyrifos based on sustainable pest management.<sup>5</sup> Now seven states, including Maryland, are suing the EPA over its failure to protect children from neurological damage caused by chlorpyrifos use.<sup>6</sup>

With its actions, the U.S. EPA has put politics above science and the economic interests of several large companies above the health and well being of the children of the United States. Since the federal government has failed to perform its most basic function of protecting the health of our children in a fair and impartial way, it is appropriate and necessary for Maryland to step in and provide these basic protections. Otherwise, as warned in a recent report in the New England Journal of Medicine we may be putting a whole generation of developing brains in harm's way.<sup>7</sup>

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<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pubmed/28934092>

<sup>3</sup>

[https://journals.lww.com/environepidem/Fulltext/2019/10000/A\\_case\\_control\\_study\\_of\\_breast\\_cancer\\_risk\\_and.9.aspx](https://journals.lww.com/environepidem/Fulltext/2019/10000/A_case_control_study_of_breast_cancer_risk_and.9.aspx)

<sup>4</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117899/>

<sup>5</sup> <https://www.cdpr.ca.gov/docs/pressrls/2019/081419.htm>

<sup>6</sup> [https://www.capitalpress.com/state/oregon/oregon-joins-lawsuit-challenging-epa-over-chlorpyrifos/article\\_353e7240-d40b-11e9-a100-9fac57af62a9.html](https://www.capitalpress.com/state/oregon/oregon-joins-lawsuit-challenging-epa-over-chlorpyrifos/article_353e7240-d40b-11e9-a100-9fac57af62a9.html)

<sup>7</sup> <https://www.nejm.org/doi/pdf/10.1056/NEJMp1716809>