



February 9, 2021

**Environmental Working Group Comments to the Environmental Protection Agency
Document ID: EPA-HQ-OPP-2008-0850-0964; Pesticide Registration Review:
Proposed Interim Decision for Chlorpyrifos**

The Environmental Working Group, or EWG, a nonprofit research and policy organization with offices in Washington, D.C., Minneapolis, Minn., San Francisco and Sacramento, Calif., urges the Environmental Protection Agency to revoke the proposed interim decision for chlorpyrifos, issued in December 2020, which allowed continued use of this highly toxic pesticide. The EPA should cancel all chlorpyrifos uses and revoke all tolerances of the insecticide immediately, as was proposed in 2015, based on health concerns due to aggregate exposure from the pesticide, a decision reversed in recent years.¹²

Epidemiological studies have convincingly demonstrated that exposure to chlorpyrifos during pregnancy and early life harms the developing brain, including reduced IQ and delayed development of motor and sensory functions, as well as social and behavioral dysfunction.³ In 2019 the European Union announced that the re-registration of chlorpyrifos would not be approved and concluded there was no safe level of exposure.⁴ The EPA's 2016 Human Health Risk Assessment for chlorpyrifos reached similar conclusions, estimating that dietary exposures to chlorpyrifos for children (1 to 2 years old) exceeded safe levels by 14,000 percent.⁵

Furthermore, even after the 2016 Human Health Risk Assessment identified levels of unreasonable risk for children's health due to chlorpyrifos exposures, additional studies continue to provide further support for concerns about adverse neurodevelopmental outcomes in children following early life chlorpyrifos exposure.^{6,7}

However, between 2016 and 2020, the EPA took the wrong approach to chlorpyrifos, defying published science and endangering public health. In the 2020 Revised Human Health Risk Assessment and Proposed Interim Decision for chlorpyrifos, the EPA set the

¹ EPA. [EPA-HQ-OPP-2007-1005; FRL-9960-77] Chlorpyrifos; Order Denying PANNA and NRDC's Petition To Revoke Tolerances. April 5, 2017. <https://beta.regulations.gov/document/EPA-HQ-OPP-2007-1005-0100>

² <https://www.ewg.org/release/epa-s-wheeler-keeps-brain-damaging-pesticide-legal-use-foods-kids-eat>

³ Hertz-Picciotto et al. (2018) Organophosphate exposure during pregnancy and child neurodevelopment: Recommendations for essential policy reforms. *PLOS Medicine* 15(10): e1002671. <https://doi.org/10.1371/journal.pmed.1002671>

⁴ <https://www.efsa.europa.eu/en/press/news/chlorpyrifos-assessment-identifies-human-health-effects>

⁵ EPA. Chlorpyrifos: Revised Human Health Risk Assessment for Registration Review. November 3, 2016.

<https://beta.regulations.gov/document/EPA-HQ-OPP-2015-0653-0454>

⁶ Guo et al. Associations of prenatal and childhood chlorpyrifos exposure with Neurodevelopment of 3-year-old children. *Environmental Pollution*. 251 (2019) 538-546.

⁷ Dalsager et al. Maternal urinary concentrations of pyrethroid and chlorpyrifos metabolites and attention deficit hyperactivity disorder (ADHD) symptoms in 2-4-year-old children from the Odense Child Cohort. *Environmental Research*. 176 (2019) 108533



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point of departure and the chronic reference dose for chlorpyrifos based on a mechanistic assay of 10 percent red blood cell acetylcholinesterase (AChE) inhibition,⁸ instead of using available high-quality epidemiological data. The point of departure selected in the 2020 assessment was 3,000 times greater than the point of departure identified in 2016's assessment. Further, the EPA's 2020 approach to chlorpyrifos clashed with the 2016 conclusion of the Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel, which found that "epidemiology and toxicology studies suggest there is evidence for adverse health outcomes associated with chlorpyrifos exposures below levels that result in 10% RBC AChE inhibition."⁵

As a result of EPA's decisions to allow the continued use of chlorpyrifos, millions of pounds of this toxic insecticide have been sprayed every year. According to the United States Geological Survey, in 2017 – the year of the most recent available data – between 5 and 10 million pounds of chlorpyrifos were sprayed in the U.S.⁹ And in samples collected in 2019, the USDA detected chlorpyrifos on roughly 10 percent of basil, cilantro, radish, hot peppers and a popular children's food, frozen strawberries. Children's continued exposure to chlorpyrifos through diet could have been prevented by revoking chlorpyrifos tolerances five years ago.¹⁰

Along with the EU, in 2019, Canada proposed to ban agricultural uses of chlorpyrifos,¹¹ and many states, including California,¹² Hawaii,¹³ Oregon,¹⁴ and New York¹⁵ have also taken actions to ban or restrict its use. Following the actions of other countries and states, the EPA should revoke the 2020 proposed interim decision for chlorpyrifos, cancel all remaining tolerances and prohibit all uses of chlorpyrifos.

Submitted on behalf of the Environmental Working Group,

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⁸ EPA. Chlorpyrifos. Third Revised Human Health Risk Assessment for Registration Review. September 21, 2020. <https://beta.regulations.gov/document/EPA-HQ-OPP-2008-0850-0944>

⁹ USGS, National Water-Quality Assessment Project. Pesticide National Synthesis Project. Estimated Annual Agriculture Pesticide Use. Available at: https://water.usgs.gov/nawqa/pnsp/usage/maps/compound_listing.php

¹⁰ USDA, Pesticide Data Program. Agricultural Marketing Service. Available at: www.ams.usda.gov/datasets/pdp

¹¹ Health Canada Pest Management Regulatory Agency. Proposed Re-evaluation Decision PRVD2019-05, Chlorpyrifos and Its Associated End-use Products: Updated Environmental Risk Assessment. May 31, 2019.

<https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/public/consultations/proposed-re-evaluation-decisions/2019/chlorpyrifos/document.html>

¹² <https://www.cdpr.ca.gov/docs/chlorpyrifos/index.htm>

¹³ <https://governor.hawaii.gov/newsroom/latest-news/office-of-the-governor-news-release-with-photos-hawaii-becomes-first-in-nation-to-enact-law-banning-pesticides-containing-chlorpyrifos/>

¹⁴ https://www.capitalpress.com/ag_sectors/nursery/oregon-to-phase-out-most-uses-of-chlorpyrifos-by-end-of-2023/article_60c6a44c-3fc0-11eb-be96-838fe96229d7.html

¹⁵ <https://www.governor.ny.gov/news/governor-cuomo-directs-dec-ban-use-chlorpyrifos>