

March 11, 2021

## **SUPPORT S. 20** An act relating to PFAS restrictions in consumer products

Senator Virgina Lyons, Chair, Committee on Health and Welfare 115 State St. #1 Montpelier, VT 05633

Dear Chairperson Lyons and Committee members:

We write to strongly urge you to protect Vermont residents from exposure to a class of chemicals that threaten public health by supporting S. 20 - An act relating to restrictions on perfluoroalkyl and polyfluoroalkyl substances (PFAS) and other chemicals of concern in consumer products. There is an urgent need for the enactment of this bill.

Consumer Reports is an independent, nonprofit organization - with over 7,000 members in Vermont - that works with consumers for truth, transparency, and fairness in the marketplace through rigorous, independent testing and research. We empower and inform consumers, incentivize corporations to act responsibly, and help policymakers prioritize the rights and interests of consumers in order to shape a truly consumer-driven marketplace.

S. 20 would ban intentional use of PFAS in a range of consumer products, including firefighting foam and protective equipment; food packaging; rugs, carpets, and aftermarket stain and water resistant treatment; and ski wax. S. 20 would also ban use of phthalates in food packaging and would list all PFAS as "chemicals of high concern to children," so that manufacturers of children's products would have to report if their products contain PFAS.

## PFAS

PFAS are a group of more than 4,700 chemicals that are very widespread and dangerous. Three characteristics of PFAS make them especially dangerous to humans. First, they are extremely persistent, resistant to breaking down naturally in the environment and remaining in people's bodies for years. This is why they have been described as "forever chemicals." Second, they are highly mobile, spreading quickly in the environment and prevalent throughout our environment. Finally, they can be toxic at very low doses—even at parts per trillion levels, they have been associated with a variety of severe health effects, including cancer.

Because PFAS are so persistent, prevalent, and toxic, they must be regulated. Indeed, given their widespread use, PFAS are detectable in the blood of 97 percent of people in the United States.<sup>[1]</sup> Some of the toxic effects associated with exposure to these chemicals include immunotoxicity, cancer, thyroid disease, birth defects, and decreased sperm quality.<sup>[2]</sup> They reduce the immune response to childhood vaccines and may increase the risk of infectious disease.<sup>[3]</sup> In addition, PFAS exposure has been directly linked to several underlying conditions that make people more vulnerable to severe symptoms of COVID-19, including obesity, asthma, kidney disease, and

high cholesterol.<sup>[4]</sup> Compared to people with no underlying conditions, patients who have these conditions are six times as likely to be hospitalized with COVID-19 and 12 times as likely to die of the disease.<sup>[5]</sup>

Among the ways that consumers can be exposed to PFAS are through food, water, consumer products that contain PFAS, and contaminated soil, dust and air. S. 20 should reduce consumer exposure to PFAS through banning its use in firefighting foams and protective equipment, food packaging and ski wax.

Some manufacturers add PFAS to food packaging to make it water- and grease-resistant, which can contaminate the food with which it comes into contact. Indeed, the Food and Drug Administration (FDA) last year reported that it had detected PFAS in a variety of foods purchased around the country, including produce, meats and seafood.<sup>[6]</sup> People are exposed when they eat the contaminated food. In a recent test, PFAS were detected in the packaging of foods sold by major retailers.<sup>[7]</sup> This prompted some retailers to announce a switch to safer alternatives, thereby demonstrating the availability of and feasibility of non-PFAS food packaging.

Since many PFAS are so resistant to break down, their presence in food ware means that they will leach out in the landfill and enter the environment. In addition, the increase in the consumption of take-out foods as a result of the pandemic has increased the risk of consumer exposure to PFAS.

There are alternatives to PFAS-treated food ware, and major retailers and restaurants including Panera Bread, Taco Bell, Chipotle, Whole Foods Market, Sweetgreen, Cava, and Freshii have already started the switch to these safer alternatives.<sup>[8]</sup>

PFAS use in rugs, carpets and stain and water resistant treatments can result in PFAS being present on dust and in indoor airs, due to aging and PFAS evaporation.<sup>[9]</sup> In addition, the hand-to-mouth and close proximity to the floor of toddlers means that PFAS levels can be higher in toddlers compared to adults both in residential homes and child care environments.<sup>[10]</sup> Banning use of rugs and carpets treated with PFAS or aftercare stain and water treatments containing PFAS should help reduce exposure of infants and toddlers to PFAS.

Given the toxicity, persistence and prevalence of PFAS in the environment and given that children and toddlers can have higher exposure to PFAS it makes sense to include PFAS on list of high concern to children and to require manufacturers to report if they are using PFAS chemicals in children's products sold in Vermont, as S. 20 does.

## Phthalates

Ortho-phthalates are chemically and pharmacologically related substances that are found in cellophane, paper, and plastics that come into contact with food. FDA has approved thirty ortho-phthalates for use as plasticizers, adhesives, coating agents, defoaming agents, lubricants, or slimicides, or in gasket closures, cellophane, or paper in food packaging materials and processing equipment.<sup>[11]</sup> Since ortho-phthalates are not part of the plastic structure, they can leach out of products and be inhaled, ingested or absorbed through the skin.

According to the Centers for Disease Control and Prevention<sup>[12]</sup> (CDC) and the Consumer Product Safety Commission<sup>[13]</sup> (CPSC), human exposure to ortho-phthalates is virtually ubiquitous in the United States. The 2014 report of the Chronic Hazard Advisory Panel (CHAP) to the CPSC looked at ortho-phthalate levels in 261 food items and compared them to exposure from other sources, and concluded that food, beverages and drugs via direct ingestion constituted the highest phthalate exposure sources for the total population, and specifically for pregnant women and women of reproductive age.<sup>[14]</sup> Food and beverages were the main source for four particular phthalates: diisobutyl phthalate (DiBP), butylbenzyl phthalate (BBzP), di-n-octyl phthalate (DnOP), and DEHP.<sup>[15]</sup> Other studies have also found diet to be a major source of exposure to DEHP, diisonoyl phthalate (DiNP) and diisodecyl phthalate (DiDP).<sup>[16]</sup>

As the CHAP noted in its 2014 report on phthalates and phthalate alternatives to the CPSC, when ortho-phthalates have been studied, similar or related pharmacological effects, such as reproductive, developmental and endocrine toxicity effects, have been identified affecting children's health.

A number of studies have found that exposures to phthalates during pregnancy are associated with adverse neurodevelopment in children. Prenatal exposure to DEHP, as well as BBzP, has been associated with impaired cognitive development among girls.<sup>[17]</sup> Home dust levels of DEHP were found to be higher among children with developmental delays relative to typically developing children.<sup>[18]</sup> The review done by the CHAP concluded that poorer neurodevelopment test scores are associated with higher prenatal urinary concentrations of DEHP, DiBP, di-*n*-butyl phthalate (DnBP), and diethyl phthalate (DEP) and recommended reducing human exposure to these phthalates.

Given the toxicity of phthalates and that three phthalates—DCHP, DEHP and DiNP—are still allowed to be used in food packaging, even though the CPSC effectively banned them from use in children's toys and child care products in 2017<sup>[19]</sup>, we fully support the ban on use of any phthalates in food packaging.

## Conclusion

The enactment of S. 20 would represent significant progress toward protecting consumers from exposure to PFAS and phthalates through food packaging. Vermont could join New York, Maine and Washington in banning PFAS from food packaging materials. The bill also would protect against exposure to PFAS from firefighting foam, protective equipment and ski wax. It also would require manufacturers of children's products to report if their products contain PFAS. We strongly urge you to support this legislation.

Sincerely,

Michael Hansen, Ph.D. Senior Scientist Consumer Reports Brian Ronholm Director, Food Policy Consumer Reports <sup>[1]</sup> Lewis RC, Johns LE, Meeker JD. 2015. Serum Biomarkers of Exposure to Perfluoroalkyl Substances in Relation to Serum Testosterone and Measures of Thyroid Function among Adults and Adolescents from NHANES 2011-2012. Int J Environ Res Public Health. 12(6): 6098–6114. At:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4483690/pdf/ijerph-12-06098.pdf

https://www.atsdr.cdc.gov/pfas/health-effects/index.html [2]

<sup>[3]</sup> Grandjean P and E Butdz-Jørgensen. 2013. Immunotoxicity of perfluorinated alkylates: calculation of benchmark doses based on serum concentrations in children. Env Health 12(35). At: https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-12-35

[4] https://www.atsdr.cdc.gov/pfas/health-effects/index.html

<sup>[5]</sup> Stokes EK, Zambrano LD, Anderson KN et al. 2020. Coronavirus Disease 2019 Case Surveillance—United States, January 22-May 30, 2020. MMWR Morb Mortal Wkly Rep 2020; 69:759-765, DOI: http://dx.doi.org/10.15585/mmwr.mm6924e2

[6]

http://blogs.edf.org/health/2019/11/20/fdas-updated-results-for-pfas-in-food-suggest-progress-but-raise-questions-about -its-method/

[7] https://toxicfreefuture.org/packaged-in-pollution/

[8] <u>https://toxicfreefuture.org/pfas-free-paper-food-packaging-alternatives-a-resource-for-restaurants-and-retailers/</u>

<sup>[9]</sup> Wu Y, Romanak K, Bruton T, Blum A and M Venier. 2020. Per- and polyfluoroalkyl substances in paired dust and carpets from childcare centers. *Chemosphere* 251: <u>doi.org/10.1016/j.chemosphere.2020.126771</u>

<sup>[10]</sup> Zheng G, Boor BE, Schreder E and A Salamova. 2020. Indoor exposure to per- and polyfluoroalkyl substances (PFAS) in the childcare environment. Environmental Pollution 258: 113714. At: https://www.brandonboor.com/pdfs/Zheng EP 2020.pdf

<sup>[11]</sup> Federal Register Vol. 81, No. 98. May 20, 2016. Food and Drug Administration, 21 CFR Parts 175, 176, 177, and 178

<sup>[12]</sup> CDC. 2015. National Report on Human Exposure to Environmental Chemical Updated Tables, February 2015. Center for Disease Control and Prevention, Atlanta GA. At:

www.cdc.gov/biomonitoring/pdf/FourthReport UpdatedTables Feb2015.pdf

<sup>[13]</sup> CPSC. 2014. Chronic Hazard Advisory Panel on Phthalates and Phthalate Alternatives. U.S. Consumer Product Safety Commission, Bethesda, MD. At: http://www.cpsc.gov/en/Regulations-Laws--Standards/Statutes/The-Consumer-Product-Safety-Improvement-Act/Phthalates/Chronic-Hazard-Advisory-Panel-CHAP-on-Phthalates/ [14] *Id* 

[15] *Id.* 

<sup>[16]</sup> Serrano SE, Braun J, Trasande L, Dills R, and S Sathyanarayana. 2014. Phthalates and diet: a review of the food monitoring and epidemiology data. *Environmental Health*, 13(1): 43. At: https://ehjournal.biomedcentral.com/track/pdf/10.1186/1476-069X-13-43.pdf

<sup>[17]</sup> Tellez-Tojo MM, Cantoral A, Cantonwine DE, Schnaas L, Peterson K et al. 2013. Prenatal urinary phthalate metabolite levels and neurodevelopment in children at two and three years of age. Science of the Total Environment, 461-462: 386-390. At: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3735862/pdf/nihms482462.pdf

<sup>[18]</sup> Philippat C, Bennett DH, Krakowiak P, Rose M, Hwang HM and I Hertz-Picciotto. 2015. Phthalate concentrations in house dust in relation to autism spectrum disorder and developmental delay in CHildhood Autism Risks from Genetics and the Environment (CHARGE) study. Environmental Health, 14: 56. At: https://ehjournal.biomedcentral.com/articles/10.1186/s12940-015-0024-9

[19] https://www.cpsc.gov/content/cpsc-prohibits-certain-phthalates-in-children's-toys-and-child-care-products