Testimony of Lisa Lefferts on S. 26
Before the Vermont Senate Health and Welfare Committee
February 12, 2026

I am Lisa Lefferts, a science consultant. Previously I was Senior Scientist at Center for Science in the Public Interest. My focus was on chemicals added to food.

Before that, I served on FDA's Food Advisory Committee when it considered food dyes in 2011.

I'm also the primary author of the successful petition to FDA to ban Red 3, a cancer-causing synthetic food dye.[1]

Thank you for this opportunity to testify, and for considering S.26 to prohibit synthetic dyes in school foods.

My bottom-line message is: S.26 is grounded in science, is very doable, and is really needed. I'd also encourage you to consider expanding it to consider additional chemicals of concern.

"Synthetic dyes can cause or exacerbate neurobehavioral problems in children."[2]

That's a quote from the best assessment on synthetic dyes ever conducted.

Don't take my word on it being the best. Thirty other scientists and over 20 organizations said that too.[3]

We're saying "best" because it is the most comprehensive and rigorous such assessment ever done. It was over 300 pages and took over 2 years. And unlike some other assessments, it used a state-of-the-art systematic approach to examine ALL the evidence, was open for public comment, and peer-reviewed.[4]

We can use the word "cause" – a word scientists don't use lightly – in part because the evidence includes 27 clinical trials, considered the "gold standard" for evidence of causation. These trials were conducted on children, and are designed to hold other variables constant except for whether dyes were present or not, so we know that the effect is really from the

dyes, and not something else. It's quite rare to have this kind of human evidence on a chemical added to food.

Not only do we have all that *human* evidence, we also have evidence from animals, and test-tube studies. Importantly, all 3 separate lines of evidence – human, animal, and test-tube– all converge to reach the same conclusion. That strengthens our confidence that dyes really do cause these effects.

By "neurobehavioral effects," we mean that dyes can cause or worsen hyperactivity, inattention, sleeplessness, and restlessness. Those are serious side effects that can have long-term consequences.

Synthetic food dyes affect neurotransmitter systems in the brain, and actually cause microscopic changes in brain function.[5]

Synthetic food dyes are completely unnecessary, their purpose is only cosmetic. They can be omitted entirely, replaced with safe alternatives like grape skin extract, or real fruits and vegetables.

We know they're unnecessary because many companies have reformulated their products to eliminate them.[6-8]

This bill is very doable since few school foods contain synthetic dyes, and dye-free alternatives are readily available.[9]

By the end of 2025, at least nine states had enacted laws the restrict the use of synthetic food dyes and other additives in meals served in schools.[10] Many schools nationwide eliminated synthetic dyes and other additives of concern well before states required it. [11]

Three states – Arkansas, California, and West Virginia –adopted *statewide* bans on certain additives.[12]

I understand you've heard previous testimony asking you to consider expanding this bill to include additional additives. I think that's a good idea, and here are some to consider.

The three statewide bans cover **BHA**, **potassium bromate**, and **propyl paraben**.

BHA (butylated hydroxyanisole) is a preservative and is listed in the official U.S. Report on Carcinogens, a Congressionally mandated report, as "Reasonably Anticipated to be a Human Carcinogen."[13] It has been listed since 1991.

Potassium bromate is added to flour to increase bread volume. Bromate is considered a "probable human carcinogen" by the U.S. EPA.[14] It's banned virtually worldwide.

Propyl paraben, another preservative, has effects on sex hormones and causes endocrine disruption and reproductive issues in animal tests.[15]

The U.S. is an outlier in allowing these chemicals. None are permitted in Europe. You don't need them in food. How many of you have BHA, propyl paraben, or potassium bromate in your kitchen cabinets?

In addition, I'd also suggest you consider three other preservatives which some evidence suggests cancer concerns: **BHT** (butylated hydroxytoluene), **TBHQ** (tert-butylhydroquinone), and **propyl gallate**.[16]

These are also unnecessary. They can be replaced by safer chemicals like vitamin E or sorbic acid, or by packing foods under nitrogen instead of air, or simply left out. Potato chips that don't have them taste just fine.

Finally, two others to consider: **Titanium dioxide** is banned from food in Europe due to concerns that extremely tiny particles of it, called nanoparticles, could accumulate in the body and damage DNA.[17,18] It's in several state bills and is prohibited under Arizona's Healthy Schools Act.[19] **Aspartame** is considered "possibly carcinogenic to humans" by an arm of the World Health Organization[20] and is prohibited in certain school foods in Louisiana.[21]

It just doesn't make sense for children who are at school to learn, to be fed unnecessary chemicals that can make it difficult for them to learn, or possibly increase their cancer risk. Like it or not, it seems to be up to states to protect their citizens from these chemicals in the food supply, since it seems to be so difficult for FDA to act. I'd be happy to answer questions, and urge you to vote aye on S. 26. Thank you.

[1] Color Additive Petition from Center for Science in the Public Interest (CSPI), et al.; Request to Revoked Color Additive Listing for Use of FD&C Red No. 3 in Food and Ingested Drugs. Final amendment; order. 90 FR 4628, 1/16/2025. https://www.federalregister.gov/documents/2025/01/16/2025-00830/color-additive-petition-from-center-for-science-in-the-public-interest-et-al-request-to-revoke-color,

[2] California Office of Environmental Health Hazard Assessment (OEHHA). *Potential Neurobehavioral Effects of Synthetic Food Dyes in Children.* April 2021, p. 246. https://oehha.ca.gov/risk-assessment/synthetic-food-dye-risk-assessment.

[3] Comments from 21 associations and 31 researchers/health professionals on California OEHHA Draft Report, November 2020. https://oehha.ca.gov/sites/default/files/media/dockets/19884/19966-comments_from_21_organizations/associations_and_31_researchers/health_professionals/dyes_oehha_draft_report_comments_from_21_organizations_and_31_researchers_and_health_practitioners.pdf.

[4] OEHHA. Synthetic Dye Risk Assessment. https://oehha.ca.gov/risk-assessment/synthetic-food-dye-risk-assessment. By way of contrast, reviews by the FAO/WHO Joint Expert Committee on Food Additives (JECFA) JECFA and EFSA reviews are measured in days not years, are not peer reviewed, are conducted by volunteer experts behind closed doors, and don't undergo public review and comment. They do not integrate all of the data like OEHHA did. JECFA's assessment of Red 40, the most used synthetic dye in the U.S., was a couple of paragraphs.

[5] OEHHA 2021, *op cit,* p. 19

[6] Saltmarsh, M. Recent trends in the use of food additives in the United Kingdom. J Sci Food Agric 95(4):649-52, 2015. https://pubmed.ncbi.nlm.nih.gov/24789520/. This 2015 article notes that many synthetic food dyes, including the three most used food dyes in the U.S. (Red 40, Yellow 5, Yellow 6) have largely been replaced in the United Kingdom.

[7] U.S. Food & Drug Administration (FDA). Tracking Food Industry Pledges to Remove Petroleum Based Food Dyes. February 2026. https://www.fda.gov/food/color-additives-information-consumers/tracking-food-industry-pledges-remove-petroleum-based-food-dyes.

[8] CSPI. Synthetic Dyes Corporate Commitment Tracker. October 2025. https://www.cspi.org/page/synthetic-dyes-corporate-commitment-tracker.

[9] For example:

- an analysis for California legislators by the Environmental Working Group found that only 3% of foods sold "on the tray" and only 2 percent of foods sold a la carte contained synthetic dyes.
- CSPI's 2021 School Meals Corporate Report Card report showed that the vast majority of school foods are already made without dyes, and there are alternatives to the few that do. The report found all but one minor food group had at least one company that produced foods without synthetic dyes. Therefore it is easy to eliminate dyes quickly from school foods. That was in 2021 and their has been significant progress since then.
- A 10/29/25 article in Education Week called "What a School District Discovered When Its State Banned Synthetic Dyes describes how easy and inexpensive it was to comply with the law banning dyes in school, widely quoting a child nutrition director for a West Virginia school district. There weren't as many items on their menu as they expected, and they were able to find alternatives, and there were no significant price differences—except for strawberry milk, which the district decided to no longer offer. Also see "How Schools Can Prepare for New Restrictions on Artificial Dyes."

[10] Haynes Boone. The Push Toward Real Food: State Law Changes in 2025. https://www.haynesboone.com/-/media/project/haynesboone/haynesboone/pdfs/alert-pdfs/2026/local-atc-update--wrap-up-of-2025-state-legislative-proposals-to-restrict-food-additives-or-color-ad.pdf.

[11] The *Ingredient Guide for Better School Food Purchasing*, which identifies unwanted ingredients, including synthetic food dyes, was first developed in 2014 by school nutrition leaders in the upper Midwest region and myself. The Guide has been updated multiple times and has been voluntarily adopted by many schools nationwide, and a free online tool made available via the website for school food professionals to analyze

their products for ingredients of concern and find better alternatives. See https://ingredientguide.org/ and https://ingredientguide.org/who-we-are/.

[12] West Virginia's statewide ban of 2025 covers the specified synthetic food dyes, BHA, and propyl paraben. The statewide additive bans in California (2023) and Arkansas (2025) cover potassium bromate and propyl paraben. California also banned brominated vegetable oil (BVO) and Red 3 in 2023. See Haynes Boone, op. cit. Note that FDA had concerns about BVO since the 1960s but didn't ban it until 2024. FDA banned Red 3 from cosmetics and externally applied drug in 1990 because it caused cancer in animals fed the chemical, but didn't ban it in food and ingested drugs until 2025 in response to a petition by health groups.

[13] U.S. Health and Human Services. Report on Carcinogens, Fifteenth Edition. https://ntp.niehs.nih.gov/sites/default/files/ntp/roc/content/profiles/butylatedhydroxyanisole.pdf.

[14] U.S. Environmental Protection Agency. Integrated Risk Information System (IRIS). Bromate. https://iris.epa.gov/ChemicalLanding/&substance_nmbr%3D1002.

[15] Opinion of the Scientific Panel on Food Additives, Flavourings, Processing Aids and Materials in Contact with Food on a Request from the Commission related to para hydroxybenzoates (E-214-219). The EFSA Journal (2004) 83:1-26. https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2004.83.

[16] CSPI. Chemical Cuisine. Butylated hydroxytoluene (BHT). https://www.cspi.org/chemical-cuisine/butylated-hydroxytoluene-bht. TBHQ (tert-butylhydroquinone). https://www.cspi.org/chemical-cuisine/tbhq-tert-butylhydroquinone. Propyl gallate. https://www.cspi.org/chemical-cuisine/propyl-gallate.

[17] CSPI. Chemical Cuisine. Titanium dioxide. https://www.cspi.org/chemical-cuisine/titanium-dioxide.

[18] Scientific Opinion: Safety Assessment of Titanium Dioxide (E171) as a Food Additive. EFSA Journal 19(5), 2021.

[19] Haynes Boone, op. cit., p. 2.; Arizona Healthy Schools Act, H.B. 2164, 57th Leg., 1st Reg. Sess. (Ariz. 2025).

[20] Riboli et al. Carcinogenicity of aspartame, methyleugenol, and isoeugenol. The Lancet Oncology 24(8):848-850, 2023. https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(23)00341-8/abstract.

[21] Haynes Boone, op. cit., p. 7; S.B. 14, Reg. Sess. (La. 2025).