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PROTECTING NEW YORK COMMUNITIES FROM 1,4-DIOXANE

New York State 1,4-Dioxane Legislation Creates Industry-Wide Change

1,4-Dioxane is an emerging contaminant of concern found in drinking water throughout the nation. The EPA has established that 1,4-dioxane is likely to be carcinogenic to humans. **Exposure to this chemical is linked to tumors of the liver, gallbladder, nasal cavity, lung, skin, and breast.**

Drinking water contaminated with 1,4-dioxane can occur from two sources, it is a result of past industrial practices that discharged 1,4-dioxane into the ground and 1,4-dioxane is also found in common everyday products, such as shampoo, body wash, dish soaps, and laundry detergents. When these common products are used in the home or business they are discharged into surface or groundwater systems through sewage treatment plants and septic systems.

In 2018, CCE released **"Shopping Safe: The 2018 Consumer Shopping Guide."**, which found 1,4-dioxane present in more than 80% of personal care products, including baby products, shampoos, body wash, and lotions. It is not added to products as an ingredient and it does not enhance the effectiveness of a product, but rather it occurs as an unwanted byproduct. It results from a process called ethoxylation, which is used to reduce the risk of skin irritation caused by petroleum-based ingredients. This is why1,4-Dioxane is called "the hidden carcinogen" - because it is not listed on product labels and consumers have no way of knowing they are being exposed.

These common household products are contributing to 1,4-dioxane being washed down the drain into aquifers, surface waters and our coastal environments. Sewage and septic systems are not designed to filter out this contaminant, making our aquifer system very susceptible to contamination. Once in our groundwater, 1,4-dioxane's high solubility makes it a persistent, long-term threat to our water resources.

SINCE CCE'S 2018 REPORT, NEW YORK STATE HAS MADE SIGNIFICANT PROGRESS IN REDUCING THE PUBLIC'S EXPOSURE TO THIS CONTAMINANT.

NEW YORK LEADING THE WAY ON 1,4-DIOXANE PROTECTION

CCE's Shopping Safe report helped to shape groundbreaking legislation and catapult NY as a national leader in addressing this harmful contaminant.

- The Suffolk County Water Authority piloted water treatment technology using advanced oxidation that has produced great success in removing this chemical from drinking water.
- NY implemented the strongest
 1,4-dioxane drinking water standard in the nation at 1 part per billion (ppb).
- State funding has been made available to water districts to install filtration for 1,4-dioxane treatment systems so that our water can be clean and remain affordable.

In addition to *treating* drinking water supplies for 1,4-dioxane, it is critical that we *prevent* pollution of our water resources. That is why CCE spearheaded state legislation to reduce 1,4-dioxane in common household products.

1,4-DIOXANE LEGISLATION

In 2019, New York passed a law that severely limits the amount of 1,4-dioxane in products sold in New York State including cosmetics, cleaning products, and personal care products. This first-of-its-kind law in the nation is designed to protect public health from exposure to this likely carcinogen and prevent further contamination of our water supply. In 2023, products were mandated to remove contamination down to 2,000 ppb and in 2024, they need to meet a standard of 1,000 ppb of 1,4-dioxane or below.

As part of NY's law, manufacturers are permitted to apply for waivers if they need additional time to meet the 1,4-dioxane standards. After the law was implemented, over 1,500 products received one-year waivers for the 2,000 ppb standard, including some of the soaps and shampoos that CCE had previously tested.

This year, 26 additional products received waivers for the 1,000 ppb standard, all of which have 1,4-dioxane levels between 1,000 and 2,000 ppb, including 20 products from The Body Shop International Limited (soaps, shower gels, and shampoo), TGH Beauty Limited Regenerating Shampoo with Prickly Pear Oil, Antonio Puig soap, and Asko liquid detergent.

NEW INDEPENDENT TESTING FOR 1,4-DIOXANE

CCE's independent testing in 2018-2019 found that some of the highest levels of 1,4-dioxane were in laundry detergents. However, very few laundry detergents are listed on the NYS DEC waiver list. This meant they must have less than 1,000 ppb of 1,4-dioxane in order to be in compliance with NY State law.

CCE wanted to confirm that popular detergents were in fact, in compliance and now have 1,000 ppb of 1,4 dioxane or below. In January 2024, CCE independently tested five laundry detergents. The test results are below. The 2019 data provides the levels of 1,4-dioxane before the state law was passed. The 2024 levels are after the law is in effect.

<u>LAUNDRY</u> <u>DETERGENT</u>	<u>1,4-DIOXANE</u> LEVELS 2019	<u>1,4-DIOXANE</u> LEVELS 2024
Tide Original	14,000 ppb	205 ppb
Persil	6,100 ppb	928 ppb
Tide Simply Oxi	8,300 ppb	567 ppb
Gain Original	10,000 ppb	188 ppb
Dreft Stage 1 Newborn	10,000 ppb	127 ppb

These detergents had some of the highest levels of 1,4-dioxane of any product tested. In fact, all five of these products were on CCE's original "dirty dozen" product list that was circulated to our policy makers to demonstrate the need for a law regulating 1,4-dioxane in products.

THE GOOD NEWS IS THE LAW IS WORKING, AND MILLIONS OF NEW YORKERS ARE ALREADY EXPERIENCING LESS EXPOSURE TO THIS HIDDEN CARCINOGEN.



This recent round of independent testing proves that it is possible to remove toxic 1,4-dioxane from products and manufacturers can comply with the state law. Companies can reformulate without impacting the quality of their products and continue to provide consumers with effective products. Products with previously high levels of 1,4-dioxane are now well below the state's limit of 1,000 ppb, therefore other products should be able to do the same.







NEXT STEPS:

- NY is promulgating regulations for manufacturers applying for waivers and conducting compliance evaluations in relation to law limiting 1,4-dioxane in products. CCE's independent testing illustrates that waivers should be limited to ensure manufacturers are reducing 1,4-dioxane to the state limit of 1,000 ppb or under. This will reduce contamination of our drinking water and reduce public exposure to this harmful chemical.
- NY has a publicly available list of the products that have received waivers, including the levels of 1,4-dioxane in those products. CCE is requesting NY state requires testing results for those personal care products when the waivers expire, to ensure that products are truly meeting the state standard.
- In addition, we support ongoing, reliable testing for all products covered under the law and ask that those results be made available to the public. After years of being exposed to this hidden carcinogen, the public deserves the right to know how much 1,4-dioxane, even at trace amounts, is present in the products we use. New Yorkers deserve the peace of mind that our products are meeting the state standard.
- While many communities with 1,4-dioxane have installed advanced oxidation treatment to remove 1,4-dioxane, this state-of-the-art treatment is expensive. CCE is continuing to work for state and federal funding to assist water suppliers in installing these important treatment systems.
- Yale Superfund Research Center has crafted a study to better understand the impact of 1,4-dioxane exposure on Long Island residents. In 2023, we launched our partnership with Yale to provide education and outreach to inform Long Islanders about this exciting program. We are working to educate community members on how to participate in this drinking water and blood sample study. Ultimately the goal is to enhance understanding by partnering with the community in its investigation and sharing results as widely as possible. If you live on Long Island and are interested in participating and finding out if you have been exposed to 1,4-dioxane, check out CCE's website.