PRODUCT SAFETY

New York, California, and Cleaning Supplies

The two states are battling over which will be the de facto U.S. regulator.

BY IKE BRANNON AND DAVID KEMP

Partisan gridlock may have made major legislation difficult to advance at the federal level in the last decade, but most states have not suffered such stasis. As a result, many of them have begun tackling policy issues beyond what previously had been considered the proper realm of the states, including some dimensions of environmental and consumer protection. `

California and New York have been among the most aggressive in pursuing a robust regulatory agenda in these areas. Their progressive voters are largely supportive of such work, and their large populations make it more practical for them to pursue such actions than, say, Wyoming or South Dakota, where the resulting administrative costs would be spread across many fewer taxpayers.

Regulatory actions by populous states can have effects beyond their borders, establishing de facto national regulatory standards. By dint of their size, a standard set by California or New York can prompt a manufacturer to follow that standard for its operations nationwide as a cost-expedient strategy. As a result, policy debates over a large state's regulatory actions can be consequential not just for its own citizens but for the entire country.

Such a scenario describes efforts by California and New York to regulate chemicals in cleaning supplies.

In 2017, California Gov. Jerry Brown signed into law the Cleaning Product Right to Know Act. The law requires manufacturers of cleaning products to disclose certain chemical ingredients on the product label and on the manufacturer's website. The legislation was the product of a years-long effort that engaged both consumer groups and the affected industries to accomplish the intended goals in a way that minimizes compliance and transition costs while achieving desired consumer protections. After the law's passage, the industry effectively treated the state's standards as if they were the national standards and prepared to produce all products for the U.S. market in accordance with California's disclosure specifications.

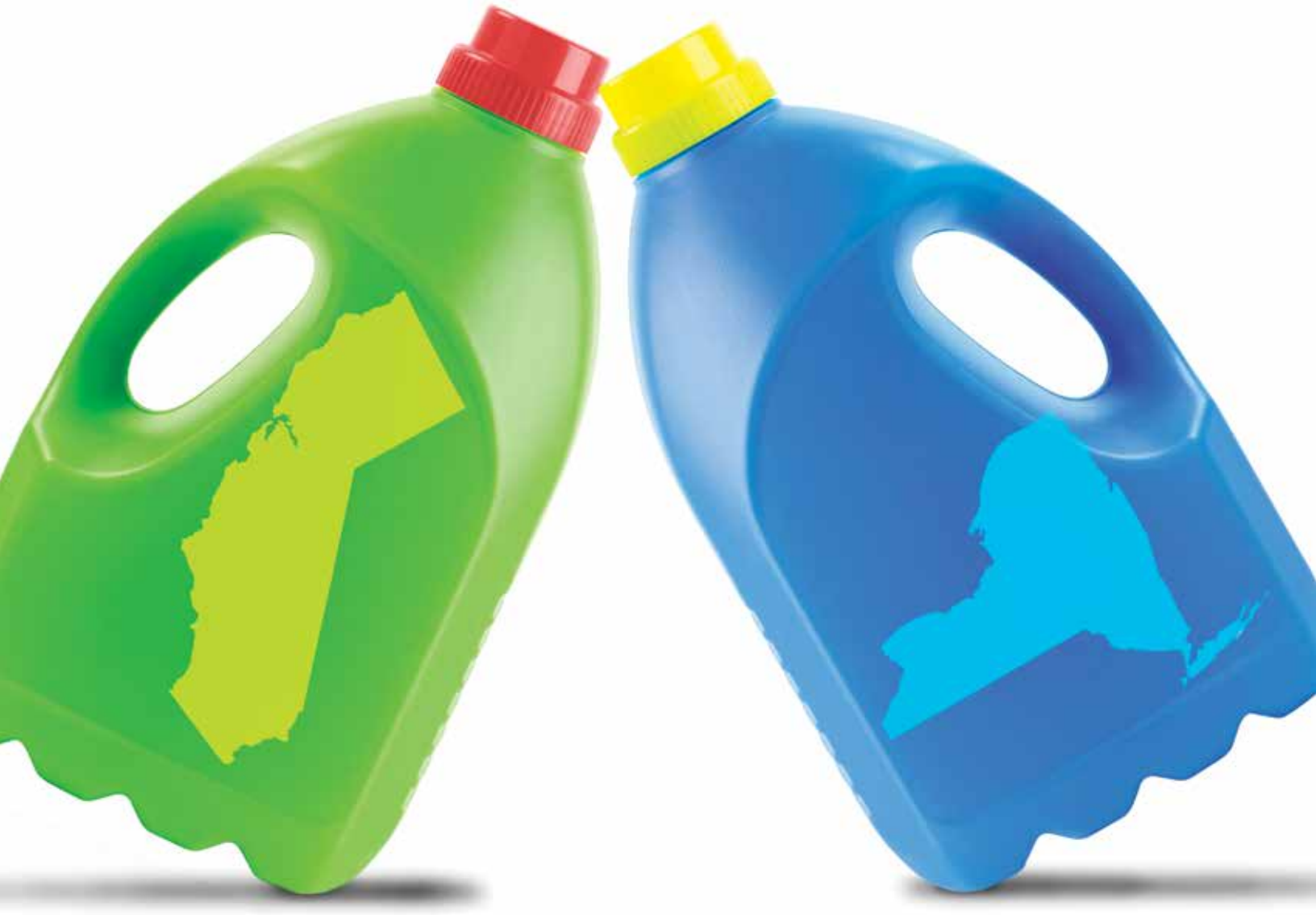
However, as California's law was nearing completion, New York announced that it would consider implementing its own chemical disclosure standards for cleaning products. After myriad delays and a lawsuit that invalidated its initial effort, the state has announced that it intends to publish a proposed rule in the near future.

This development is important because its proposed rule is significantly different from California's. New York's preliminary list of chemicals to be disclosed contains hundreds that do not appear in California's standards, and New York's reporting thresholds differ significantly from California's standards for several important chemicals, most notably dioxane. Some of New York's disclosure thresholds for chemicals on its preliminary list appear to exceed what science is currently capable of detecting. It may require tens of millions of dollars of investment by the industry to achieve those levels of discernment and necessitate higher ongoing costs to ensure that the products continue to meet the disclosure standards.

What's more, New York has offered little evidence that the trace amounts of dioxane, as well as the additional ingredients on New York's list, have any deleterious effects on human or animal health at the mandated reporting levels. The incremental benefits from New York's proposed cleaning product disclosure standards appear to be slight or nonexistent, yet the standards will significantly increase producers' compliance costs as they carry out product testing and make required disclosures.

The California standards—which fully went into effect in January—should remain as the de facto national standards unless New York can articulate how its proposed standards would benefit the state's consumers in excess of the industry's compliance costs.

IKE BRANNON is a senior fellow for the Jack Kemp Foundation and a *Regulation* contributing editor. DAVID KEMP is a research associate at the Cato Institute.



ESSEFFE/GETTY IMAGES (DETERGENT BOTTLE)

CALIFORNIA'S CLEANING PRODUCT RIGHT TO KNOW ACT

With a population of 40 million and a gross state product exceeding $3 trillion, California would be the world's fifth largest economy on its own, just behind Germany but ahead of India, France, and every other European Union country. Its population and economic heft mean that when it creates a new regulatory standard, manufacturers often conclude that it is not cost-effective to make one product for California consumers and another for the rest of the country. As a result, the manufacturers often elect to conform their products nationwide to California's standards rather than meet two distinct standards.

For instance, in the early 2000s California's regulatory standards on motorcycle emissions and noise became the effective national standards. Also, its refusal to conform to the Trump administration's attempts to reduce scheduled future Corporate Average Fuel Economy increases for automobiles and preclude California from negotiating its own distinct standards garnered support from car makers wary of whipsawing and distinct standards across the nation.

With the passage of its Cleaning Product Right to Know Act in 2017, California's disclosure requirements for cleaning products, soaps, detergents, air fresheners, and floor polishes have become the de facto national standards. The state's law requires that manufacturers disclose certain intentionally added ingredients, fragrances, and nonfunctional chemicals found in their cleaning products on the product's label and on their website. The product label must also include a toll-free phone number and the manufacturer's website for customers to learn more about the chemicals contained in the product.

The intentionally added ingredients that must be disclosed are designated on 22 lists from various state, federal, and international

sources, including California's Proposition 65 list of chemicals that contribute to cancer or developmental delays, Washington state's "persistent, bioaccumulative, and toxic" chemicals list, chemicals on the EU's Candidate List of Very High Concern, and carcinogens identified by the International Agency of Cancer Research. There is no minimum threshold for these chemicals, and those that have been added at any level must be listed, along with their functional purpose, on the product label and the manufacturer's website. Manufacturers must also disclose information on fragrance ingredients that are at a concentration above 100 parts per million (ppm).

California additionally requires that 34 nonfunctional constituents that may be present in a product above specified thresholds be disclosed. These chemicals are not intentionally added and have no functional purpose and are typically byproducts created during the manufacturing process. Because of these byproducts, a producer may need to perform a test to determine whether the chemicals exist in their product or in the ingredients they get from their suppliers. The threshold for reporting is 100 ppm for everything but the chemical compound 1,4 dioxane, which has a threshold of 10 ppm (0.001%). Below those thresholds, the nonfunctional constituent is considered to be present at only minute levels and pose negligible risk.

The online disclosure requirements took effect on January 1, 2020 and the product label requirements went into effect on January 1, 2021. Products that do not meet the requirements are prohibited from being sold in California and a manufacturer that does not comply could face fines for each violation.

NEW YORK'S HOUSEHOLD CLEANSING PRODUCT DISCLOSURE PROGRAM

Shortly after California's years-long effort at expanding the disclosure of chemicals in cleaning products culminated in the legislation proposed in early 2017, New York Gov. Andrew Cuomo announced that his state would begin its own initiative to require manufacturers of household cleaning products sold in the state to disclose the chemical ingredients on the manufacturers' websites. Cuomo directed the New York State Department of Environmental Conservation (DEC) to draft a guidance document to accomplish this.

In June 2018—nearly a year after California's passage of its chemical disclosure law—the DEC issued the Division of Materials Management Program Policy on Household Cleansing Product Information Disclosure, creating the state's own cleaning products chemical ingredient disclosure plan. However, in 2019 the New York State Supreme Court invalidated the program, declaring that the state did not follow the State Administrative Act rulemaking procedures and that designating the policy as merely a guidance document did not exempt it from those requirements. The state then began the rulemaking process, and an announcement regarding its conclusion and implementation is anticipated in 2021. The expectation is that the finalized rule will differ little from the 2019 policy.

Expanded list of chemicals / New York's 2019 standards differ from California in several important ways. The first is that New York is much more inclusive: its cumulative list of chemicals to be disclosed contains hundreds of additional chemicals. New York's "Chemicals of Concern" include all the chemicals listed by California, plus chemicals on seven other lists of chemicals. In total, New York's list contains approximately 3,500 chemicals, about one-third more than California's list.

More stringent standards / Along with having a longer list, New York's proposal has lower standards for some of its chemicals, most notably dioxane, which must be reported if it is above 350 parts per trillion (ppt), and perfluorooctanoic acid and perfluorooctane sulfonic acid, which must be reported if, together, they are present above 70 ppt.

New York would also require that all chemicals, including those not listed as chemicals of concern, be disclosed if they are present above 5,000 ppm. Ultimately, all chemicals of concern above the "practical quantitation limit" would need to be listed.

The New York DEC defines the practical quantitation limit as

> the lowest concentration that can be reliably measured within specified limits of precision, accuracy, representativeness, completeness, and comparability during routine laboratory operating conditions. This value is based on scientifically defensible, standard analytical methods.

This definition provides no clear indication of what the minimum threshold will be to manufacturers. When the standard is implemented, manufacturers could potentially be required to disclose the presence of thousands of chemicals at levels currently beyond their testing capability.

The additional chemicals and lower standards appear to be sufficiently distinct from California's that the cleaning product manufacturers would have to revamp their procedures currently in place to conform to New York's distinct standards.

Penalties for noncompliance / The DEC best practices guidance gives no indication of what the penalties will be for companies that fail to disclose components in their products that are above the thresholds outlined above. The lack of certainty as to how the DEC will enforce and penalize noncompliance of the disclosure requirements creates a large degree of uncertainty for manufacturers and their suppliers.

Presumably, similar to other DEC regulations, the ingredient disclosure rules will be enforced through hearings before administrative law judges assigned by the DEC's Office of Hearings and Mediation Services. Penalties for violations will be assessed according to existing DEC policy on civil penalties. But the guidance does not clarify how the DEC will investigate possible violations and there is no indication that the DEC will test products to ensure compliance with the disclosure requirements, which would be costly for the state. It is also not clear if nongovernmental

organizations and other parties will be able to independently test products and file complaints with the DEC or sue for penalties in civil courts.

IMPLICATIONS

The differences between New York's proposed rules and California's Cleaning Product Right to Know Act are significant. New York's proposal has potentially significant economic consequences for the entire United States because this rule will likely force manufacturers to conform to it rather than California's standards. This would not be a good outcome; the costs of meeting New York's requirements appear to be significantly higher than California's, and there is little evidence that the change will increase consumers' knowledge of their exposure to problematic chemicals or reduce their risk from exposure. What's more, there is little evidence that the different reporting thresholds for various chemicals correlate to any positive health outcome.

Besides the additional chemicals and sharply lower thresholds for three important chemicals, New York's proposed regulations inject a modicum of uncertainty into the testing regime for cleaning product manufacturers. New York does not expect every company selling cleaning products to test every product for each chemical on the list: for most products, most of these chemicals would have no reason to be present, and the state would be satisfied with being told as much. For those chemicals, this makes the rule more of a data management issue, with a producer needing to keep track of precisely what ingredients—and what possible contaminants—might be present in each formulation of its products. The precise composition of ingredients for products can change slightly over time, depending on a company changing suppliers, raw material availability, and a variety of other contingencies.

New York's highest priority with its chemical disclosure regulations—and the one that would necessitate the highest compliance costs—is dioxane. It is a synthetic chemical that was once used as a stabilizer for industrial solvents. Today, it is used in small concentrations in a variety of applications, such as adhesives and inks. It is also present in trace amounts in detergents, shampoos, and cosmetics as a byproduct of manufacturing processes that employ ethoxylated chemicals, such as certain surfactants. Surfactants make soap and shampoo more slippery and hence more effective at removing dirt.

The U.S. Environmental Protection Agency classifies dioxane as a probable human carcinogen based on animal studies, but there are no epidemiologic studies that show workers with occupational exposure to the chemical have a higher incidence of cancer. Last December, the EPA released its Final Risk Evaluation for 1,4-Dioxane under the Lautenberg Chemical Safety Act–amended Toxic Substances Control Act. The evaluation concluded that while 1,4-dioxane could pose an "unreasonable risk" to workers when manufacturing or importing the chemical, exposures to consumers or bystanders via consumer products (such as surface cleaners, dish soaps, and laundry detergents) did not pose unreasonable risks. The EPA also concluded that exposures to the general population through surface water, occupational non-users, and the environment did not pose an unreasonable risk.

There are several areas in the United States where dioxane has contaminated the groundwater, primarily in long-closed solid-waste landfills or the sites of former factories that used the chemical decades ago. One of those sites is Hempstead, NY, on Long Island. In 2019, the community received a $3 million state grant for a filtration system to remove the chemical from its drinking water, but removing it entirely from the groundwater supply would cost an estimated $40 million for ultraviolet light filtration technology. There are no practical home water filtration systems for removing dioxane from drinking water.

This community and others that suffer dioxane contamination understandably want to limit the ways in which more of the chemical can enter their drinking water. Their concerns appear to be one of the primary motivations for New York's stricter standards. In 2020, Cuomo set a limit for dioxane in the drinking water of 1 part per billion, making it the first state in the country to set such a limit.

THE COSTS AND BENEFITS OF DIOXANE REPORTING RULES

While the New York rule has a more expansive list of chemicals that must be accounted for than in California, the biggest practical difference between the two states' standards would be the level at which firms must report dioxane. This difference would result in compliance costs being significantly higher than under California's standard.

The New York DEC acknowledges that for most chemicals, the production process precludes the possibility that most of the chemicals on the list are present, and it does not seek to have the producers—or their suppliers—test for such chemicals. The DEC informs suppliers,

> Absent extenuating circumstances, manufacturers or their raw material suppliers need not conduct chemical analyses of their products or raw materials against the lists of chemicals of concern provided in Appendix B.

However, the proposed rules would require that producers test for dioxane and New York's reporting threshold is significantly lower than in California or anyplace else in the world. For instance, the International Union on Cosmetic Regulation is reducing allowable dioxane concentrations to 25 ppm, with a recommendation that it be reduced to 10 ppm as soon as that is feasible. This conclusion is based on studies by the EU's Scientific Committee on Consumer Safety, which reported that going below this threshold is of marginal value. Japan, Canada, and the EU conform to those recommendations. New York's reporting threshold for dioxane of 350 ppt is several orders of magnitude lower than this threshold.

We interviewed several chemists who have worked for cleaning

product companies or their suppliers to understand how the companies will react to the new standards. They uniformly told us that the cost of testing their cleaning products to discern whether dioxane is present above reportable levels would be extremely costly. At present, no test can detect such a low level of dioxane, and it is not clear that such a test is feasible in the near term. Nearly all studies that examine how to test for dioxane do so in water; testing it in complex finished goods that have added fragrances and other compounds would be exceedingly difficult. Each of the chemists we interviewed believes that companies will feel compelled to reduce dioxane levels and, at the same time, make significant capital investments in analytic instruments, technicians, and measurement research to do any necessary testing.

Ether sulfate is the most powerful and commonly used surfactant in cleaning products, and dioxane is a byproduct of its manufacturing process. A technique called vacuum neutralization can strip off dioxane and is done after the production process. One industry chemist estimated that meeting a 10-ppm threshold would cost about $20 million for each sulphonation plant in the United States.

There are six domestic surfactant suppliers and about 15 foreign suppliers. Those with older equipment may find it too costly to reduce dioxane levels, resulting in their shuttering plants. Another chemist suggested that there are companies with new plants for which reducing dioxane levels may not necessitate any additional capital investment, just a lengthening of the production process. That would increase marginal costs, but it would not necessarily entail more capital investment. These companies may welcome lower dioxane limits because it would force competitors to spend more money and possibly render some of them uncompetitive.

There are no perfect substitutes for ether sulfates. Alcohol sulfate is one possibility, but it is harsher on the skin. Another substitute, sodium lauryl sulfate, which is commonly used in dish soap, has its own detractors: the actress Jessica Alba—a co-founder of the Honest Company—encourages consumers to avoid soaps with this ingredient.

Negligible benefits / New York's reporting requirements may be a prelude to regulations reducing allowed dioxane levels in cleaning products. At the very least, reporting may create a stigma on selling products containing dioxane, prompting producers to reduce its amount below the reported limits.

The EPA has estimated that drinking water with a dioxane concentration of 350 ppt over the course of a lifetime increases a person's cancer risk by one in 1 million, which is the EPA's target risk range. The level of dioxane in most places is below this limit and the cancer risks posed by dioxane in such levels are thus minimal.

But even if the disclosure rules motivate a reduction of dioxane in cleaning products, it is unlikely that there will be a significant effect on dioxane levels in the environment. The dioxane found in drinking water that can be attributed to cleaning products is negligible. Although cleaning products invariably wash down the drain and enter the water system, the levels of dioxane in these products are miniscule and will be further diluted by water. Communities on Long Island and elsewhere that have high levels of dioxane in their drinking water understandably want the strictest possible controls on the chemical, but the cause of their contamination is historic bad practices, and the solution is better water treatment.

It appears that the marginal risk reduction that would result from New York's disclosure requirements would be negligible. In the best-case scenario, the costs imposed by the rule far outweigh the benefits; in the worst case, the benefits are nonexistent. Cleaning products have played almost no role in the high levels of dioxane contamination in Hempstead and elsewhere on Long Island. Imposing new regulations will create increased costs to manufacturers and higher prices for consumers—not just on Long Island and other places with dioxane contamination problems, but in the rest of the country as well.

NEW YORK'S OVERREACHING STANDARDS WILL AFFECT THE NATION

The divided federal government that has become commonplace in the last quarter-century has engendered—albeit inadvertently—a move toward federalism as states tackle issues in the lacuna created by federal inaction. This is not an altogether unwelcome development, but federalism may not be an appropriate approach for certain regulatory issues such as chemical disclosure requirements.

The economics of various industries effectively means that a standard created by a large state becomes the national standard because manufacturers do not find it cost-effective to create different versions of their products to comport with different standards. Because other states have no ability to influence the standards of a large, national-market-shaping state like California or New York, the regulatory outcome for a large state may not be optimal for the rest of the country. That is especially the case when two different large states adopt competing standards.

U.S. cleaning product manufacturers recently conformed to California's disclosure standards, which they now treat as national standards. Policymaking discussions that took place between California, the cleaning product manufacturers, and various nongovernmental organizations led to an outcome that achieves the state's announced goal in a way that keeps compliance costs as low as possible. New York's standards will effectively create a different national standard. Unlike in California, New York consulted little with manufacturers, other states, or other stakeholders, and apparently gave little thought to the incremental compliance costs their rule would impose. As a result, the costs of meeting the New York standards—which will ultimately be borne by consumers throughout the country—do not justify the slight (if any) benefits produced. *R*

The INDEPENDENT REVIEW

A Journal of Political Economy