

INITIAL STATEMENT OF REASONS

SAFER CONSUMER PRODUCTS REGULATIONS – Listing Laundry Detergents Containing Nonylphenol Ethoxylates as a Priority Product

Department of Toxic Substances Control Reference Number: 2019-01R

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INTRODUCTION AND BACKGROUND

The Department of Toxic Substances Control (DTSC) proposes to amend section 69511 and add section 69511.8 to Article 11, Chapter 55 of Division 4.5 of Title 22 of the California Code of Regulations [Safer Consumer Products (SCP) regulations] to add laundry detergents containing nonylphenol ethoxylates (NPEs) as a Priority Product to the Priority Products List.

Pursuant to section 69503.2(b), DTSC may identify and list as a Priority Product one or more product-chemical combinations that it determines to be of high priority. DTSC's decision to identify and list a product-chemical combination is based on an evaluation of potential exposures and adverse impacts. DTSC proposes to identify laundry detergents containing nonylphenol ethoxylates (NPEs) as a Priority Product.

DTSC is required to establish and update the Priority Products List through rulemaking under the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Division 3 of Title 2 of the California Government Code).

Statutory Intent and Requirements

In April 2007, California's Secretary for Environmental Protection launched the California Green Chemistry Initiative, a six-part initiative to develop policy options to implement a green chemistry program and reduce public and environmental exposures to toxic chemicals through improved knowledge about and regulation of chemicals. In 2008, Assembly Bill 1879 (Chapter 559, Statutes of 2008) was signed into law to implement a key recommendation of the California Green Chemistry Initiative Final Report: accelerate the quest for safer consumer products. These statutory mandates are outlined in Health and Safety Code sections 25252 and 25253.

Specifically, Health and Safety Code section 25252 requires DTSC to establish a process to identify and prioritize chemicals or chemical ingredients in consumer products that may be considered Chemicals of Concern. This process must include consideration of the following factors:

- The volume of a chemical in commerce in California;
- The potential for exposure to a chemical in a consumer product; and
- The potential effects of the Chemical of Concern on sensitive subpopulations.

Health and Safety Code section 25252 also requires DTSC to develop criteria by which chemicals and their alternatives may be evaluated. At a minimum, the criteria must include hazard traits, physicochemical characteristics, and toxicological endpoints identified by the California Office of Health Hazard Assessment (OEHHA) in regulations

set forth in Chapter 54 of Division 4.5 of Title 22 of the California Code of Regulations (CCR) adopted pursuant to Health and Safety Code section 25256.1. DTSC is also required to reference and use, to the extent feasible, available information from other nations, governments, and authoritative bodies that have undertaken similar chemical prioritization processes.

Health and Safety Code section 25253 requires the establishment of a process to evaluate the availability of potential alternatives to the use of Chemical(s) of Concern in a Priority Product, and potential hazards posed by those alternatives, through use of lifecycle assessment tools. Health and Safety Code section 25253 also authorizes DTSC to implement a range of Regulatory Responses following completion of an evaluation and comparison of the Priority Product and alternatives by the manufacturer through an Alternatives Analysis (AA).

Safer Consumer Products Regulations Overview

The SCP regulations were adopted in October 2013 to meet the statutory requirements outlined in Health and Safety Code sections 25252 and 25253. The regulations outline a science-based process for evaluating Chemicals of Concern in consumer products and safer alternatives by:

- Establishing a list of Candidate Chemicals and specifying criteria by which these may be designated a Chemical of Concern;
- Establishing a process to identify and prioritize product and Candidate Chemical combinations that may be listed as Priority Products;
- Requiring manufacturers to notify DTSC when their product is listed as a Priority Product;
- Requiring manufacturers of a Priority Product to determine how best to reduce exposures to the Chemical(s) of Concern in the product;
- Allowing DTSC to identify and require implementation of Regulatory Responses following the completion on an AA, as needed; and
- Creating a process for persons to petition DTSC to add or remove chemicals from the Candidate Chemicals list, add or remove chemical lists, in their entirety, from the Candidate Chemicals List, or to add or remove a product-chemical combination from the Priority Products List.

Priority Products List

DTSC previously added the following product-chemical combinations to the Priority Products List:

- Children’s foam-padded sleeping products containing tris(1,3-dichloro-2-propyl) phosphate (TDCPP) or tris(2-chloroethyl) phosphate (TCEP);
- Spray polyurethane foam (SPF) systems containing methylene diphenyl diisocyanates;
- Paint or varnish strippers containing methylene chloride;
- Carpets and rugs with perfluoroalkyl or polyfluoroalkyl substances;
- Treatments containing perfluoroalkyl or polyfluoroalkyl substances for use on converted textile or leathers; and
- Nail products containing toluene.

This rulemaking would update the Priority Product List by adding laundry detergents containing nonylphenol ethoxylates (NPEs) as a Priority Product.

Prioritization Criteria for Listing a Priority Product

DTSC is required to use the identification and prioritization criteria and process specified in California Code of Regulations, title 22, sections 69503.2, 69503.3, and 69503.5 to identify and add a Priority Product to the Priority Products List.

Section 69503.2 requires that any product-chemical combination listed as a Priority Product meet the following two key prioritization criteria:

- There must be potential public and/or aquatic, avian, or terrestrial animal or plant organism exposure to the Candidate Chemical(s) in the product; and
- There must be the potential for one or more exposures to contribute to or cause significant or widespread adverse impacts.

The first key prioritization principle requires DTSC to evaluate the potential for public and/or aquatic, avian, or terrestrial animal or plant organism exposure to the Candidate Chemical(s) in the product by considering routes of exposure to the product and the Candidate Chemical(s) in the product throughout its full life cycle. This evaluation considers available information regarding one or more exposure scenarios, assesses the extent and quality of the relevant available information, and includes consideration of one or more of the exposure potential factors listed in section 69503.3(b).

The second key prioritization principle requires DTSC to evaluate whether one or more exposures to a Candidate Chemical in the product have a potential to contribute to or cause significant or widespread adverse public health and/or environmental impacts. Evaluating the potential for significant adverse impacts may include consideration of the Candidate Chemical’s toxicity, and impacts on sensitive subpopulations or sensitive environmental receptors. Similarly, the evaluation of the potential for widespread adverse impacts could include consideration of the Candidate Chemical’s mobility in

different types of environmental media or how widely products containing that chemical are sold or used.

In the context of the SCP regulations, the ability of a chemical to cause an adverse impact depends on the hazard trait(s) of that chemical. The potential for an exposure to that chemical to result in an adverse impact depends on particular exposure factors, such as the route or pathway of exposure under evaluation. The term “potential” is a critical term because the regulations do not require DTSC find actual harm in order to identify a Priority Product; DTSC may also list a Priority Product based on a finding that exposure to the Chemical of Concern has the potential to contribute to or cause harm. Section 69501.1(a)(51)(A) defines “potential” as “the phenomenon described is reasonably foreseeable based on reliable information.” “Reasonably foreseeable” is a term of art in law that means a reasonable person would be able to predict or expect a given outcome. This ensures that assessment of adverse impacts is based on both reasonable grounds and evidence. Another criterion for the determination of “potential” is that consideration must be based on reliable information, which is defined in section 69501.1 of the SCP regulations to mean scientific studies or scientific information that meets certain specified criteria.

Section 69503.3 describes the factors DTSC is required to consider in its evaluation of adverse impacts and exposure to the Candidate Chemical(s) in the product. DTSC’s evaluation must include consideration of one or more adverse impact factors listed in section 69503.3(a) and one or more exposure factors listed in section 69503.3(b). Following this evaluation, DTSC uses procedures specified in section 69503.5 to identify and list product-chemical combinations as Priority Products.

Alternatives Analysis

Following the adoption of a Priority Product in regulation, manufacturers are required to submit a Priority Product Notification and determine whether they will conduct an AA. The AA is a systematic process for evaluating the life cycle impacts of a Priority Product and any alternatives considered. In lieu of submitting an AA Report, a manufacturer could remove the Chemical of Concern from the Priority Product, replace it with a safer chemical, or stop selling the product in California. Section 69505.1(a) and sections 69505.4(b), (c), and (d) identify options available to a manufacturer in lieu of conducting an AA.

The duty to comply with the regulation falls first to the manufacturer. If a manufacturer fails to submit a Priority Product Notification, this responsibility shifts to the importer of the product, if applicable, and then to the retailers or assemblers of the product. Once a manufacturer has failed to comply with the regulation and DTSC provides notice of this noncompliance, the requirements for importers, retailers, or assemblers, as applicable,

call for importers to cease placing the product into the stream of commerce in California, and for retailers and assemblers to cease ordering the product.

The AA is a two-stage process that considers many facets of product manufacturing, including process engineering, environmental management, financial analysis, and research and development. In the first stage of the AA process, manufacturers are required to identify the legal, functional, and performance requirements of the Priority Product and the Chemical of Concern, and use this information to identify one or more alternatives to consider. When the first stage is completed, the manufacturer documents the findings in a Preliminary AA Report and submits this report to DTSC. During the second stage of the AA, the manufacturer compares the Priority Product with possible alternatives using a more in-depth analysis and considers additional factors, including additional life cycle and economic impacts. This information is then submitted to DTSC in the Final AA Report.

If, after completing the first five steps of the first stage of the AA, a manufacturer determines there are no functionally acceptable or technically feasible alternatives to the use of the Chemical of Concern in the Priority Product, it may submit an Abridged AA Report in lieu of submitting the Preliminary and Final AA Reports required by the two-stage process. The Abridged AA process requires the manufacturer to document the screening of potential alternatives. Because the Abridged AA process allows for the continued sales and use of the Priority Product, the Abridged AA Report must include an implementation plan to carry out the following required Regulatory Responses:

- providing product safety information to consumers, including information on chemical hazards, safe handling and disposal procedures, and other information needed to protect public health and the environment; and
- advancing green chemistry and green engineering principles, including initiating research and development projects or funding challenge grants to design safer alternatives or to improve performance, lower cost, or increase market penetration of existing safer alternatives.

Following submission of an Abridged AA Report or Final AA Report, DTSC will post the report using the Safer Consumer Products Information Management System (CalSAFER) located at <https://calsafer.dtsc.ca.gov/> on the DTSC website and provide the public with an opportunity to submit comments. DTSC is required to review the public comments and may require the manufacturer to address all substantive comments before initiating departmental review. DTSC must evaluate each report on its own merits, taking into consideration unique conclusions and proposals. Because the information provided by manufacturers in the AA reports and proposed Regulatory Responses address specific business situations and choices made by the

manufacturer, DTSC cannot predetermine whether any Regulatory Response will be proposed by DTSC after the AA process is complete.

DETAILED STATEMENT OF SPECIFIC PURPOSE AND RATIONALE

Amend Section 69511. General.

Purpose. Section 69511 describes the scope and purpose of article 11 and establishes a Priority Products List. This section is modified to add subsection (b)(8) to identify laundry detergents containing nonylphenol ethoxylates (NPEs) as a Priority Product on the Priority Products List.

Necessity. DTSC proposes to adopt laundry detergents containing NPEs as a Priority Product because this product-chemical combination meets the criteria in section 69503.2(a), which requires that:

- There must be potential public and/or aquatic, avian, or terrestrial animal, or plant organism exposure to the Candidate Chemical(s) in the product; and
- There must be the potential for one or more exposures to contribute to or cause significant or widespread adverse impacts.

Following an extensive review of the scientific literature and analysis of the known hazard traits of NPEs and their degradation products. DTSC concluded that there is a potential for humans and the environment to be exposed to NPEs and their degradation products through the use and end-of-life of laundry detergents. These exposures could potentially contribute to or cause significant adverse impacts to aquatic animals. Each prioritization criterion is discussed below.

Potential for public and/or aquatic, avian, or terrestrial animal or plant organism exposure to the Candidate Chemical(s) in the Priority Product

NPEs are highly effective surfactants that can be found in laundry detergents marketed to businesses that have on-premises launderers like hotels and hospitals. Due to the volume of operations at these types of locations, on-premises launderers utilizing laundry detergents containing NPEs have the potential to discharge significant amounts of NPEs to wastewater treatment plants. DTSC estimates two billion pounds of laundry are washed per year by on-premises launderers in California and concentrations of NPEs in these laundry detergents can range from five to 50 percent.

Once NPEs enter wastewater treatment plants, they break down into chemicals such as nonylphenol, which is more persistent and toxic than NPEs. Both NPEs and their degradation products are continuously released to the aquatic environment through

wastewater discharge (effluent), so that organisms living in wastewater-impacted environments are chronically exposed.

Nonylphenol, the most frequently analyzed of these compounds, has been detected in California surface waters, sediments, and wastewater-related media, including influent, effluent, sludge, and biosolids. These detections can exceed aquatic guidelines, standards, or criteria established by various governments to protect aquatic organisms from adverse impacts. Detections in coastal organisms across multiple levels of the food chain illustrate that nonylphenol can transfer from the aquatic environment to these organisms. Since California's surface water environments provide habitat for hundreds of fish species (including several endangered or threatened species) and hundreds of freshwater invertebrate species, many important populations may be impacted by exposure to nonylphenol. In a comment letter to DTSC, the San Diego County Water Authority requested consideration of nonylphenol in consumer products due to its presence in wastewater that is further treated for beneficial reuse, which can include non-potable applications such as irrigation, as well as potable reuse.

Potential for one or more exposures to the Candidate Chemical to contribute to or cause significant or widespread adverse impacts

Exposures to NPEs and NPE degradation products have the potential to contribute to significant or widespread adverse impacts because these chemicals: (i) can persist in the environment; (ii) are harmful to fish and aquatic invertebrates; (iii) are present in the environment at concentrations that exceed or have the potential to exceed water quality guidelines, standards, or criteria; and (iv) can have cumulative and/or synergistic impacts with other chemicals.

These high environmental concentrations, widespread detections in organisms, and exposure impacts demonstrate the potential for NPEs and their degradation products to contribute to significant or widespread adverse impacts to aquatic organisms.

Add Section 69511.8. Laundry Detergents containing Nonylphenol Ethoxylates (NPEs).

Purpose. In its entirety, this section identifies laundry detergents containing NPEs as a Priority Product.

Necessity. This section is necessary because it describes the product-chemical combination being listed as a Priority Product, thereby informing responsible entities and the public which products are subject to regulation.

Benefits. The primary goal of SCP regulations is to protect public health and the environment by reducing exposures to potentially harmful chemicals. By listing laundry detergents containing NPEs as a Priority Product, DTSC sets in motion a strategy to reduce exposure to NPEs from use and end-of-life this product. A reduction in exposure to NPEs could benefit the health of California's residents and wildlife. The development of safer alternatives benefits California workers, consumers, employers, and the environment.

DTSC cannot pre-determine the alternatives that each manufacturer will propose; therefore, it is impossible to accurately predict or quantify the full range of potential benefits associated with their development. DTSC's process encourages the use of alternatives of least concern and prefers those that provide the greatest level of inherent protection. In general, economic benefits to California workers and business owners may include expanded employment opportunities in the fields of consulting, worker and consumer education, and marketing. Additional benefits may accrue because of increased research and product development collaboration between manufacturers and California-based research entities. Institutional and corporate financial support of chemical and material science programs focused on developing safer alternatives to NPEs could advance the field. These research initiatives could provide manufacturers with employees that are highly skilled in the research and design of products for newly emerging global markets.

Add Section 69511.8(a).

Purpose. This section provides a description of the product-chemical combination. "Laundry detergent containing nonylphenol ethoxylates (NPEs)" means any product intended to clean or remove soil or unwanted deposits from laundered clothes and textile products, such as sheets and tablecloths. This includes but is not limited to laundry detergents of any form, including granules, liquids, powders, tabs, crystals, or pods, that are used in washing machines, for hand washing, or as part of a laundry system. Detergents intended for use as a pre-soak or pre-spotter or with fabric or color protection properties are also included.

Necessity. This description is necessary for a responsible entity to determine whether one or more of its products is a Priority Product, as required by section 69503.5(b)(1)(A). DTSC selected these products because of their use in California has a high potential to lead to ecological exposure to NPEs. Clearly describing the product-chemical combinations allows responsible entities and the public to understand the Priority Product being listed.

Add Section 69511.8(b).

Purpose. This section identifies nonylphenol ethoxylates (NPEs) as the Candidate Chemical and the basis for proposing to list laundry detergents containing NPEs as a Priority Product.

NPEs are a class of chemicals meeting either of these definitions:

1. "4-Nonylphenol, branched and linear" described as ethoxylated substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering Unknown or Variable Composition, Complex Reaction Products and Biological Materials (UVCB) and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof; or

2. "Nonylphenol ethoxylates" described with the formula $C_9H_{19}-C_6H_4OH(CH_2CH_2O)_n$, where $n = 2 - 50$, normally between 6 and 12.

NPEs also include the following degradation products: nonylphenol (NP), nonylphenol carboxylates, and shorter chain NPEs (i.e., nonylphenol mono ethoxylate and nonylphenol diethoxylate) that have broken down from longer chain NPEs.

Necessity. This section is needed to define NPEs and to clearly identify to responsible entities and the public that NPEs is the Candidate Chemical that is the basis for listing laundry detergents containing NPEs as a Priority Product.

Consistent with section 69503.6(a) of the SCP regulations, NPEs are Candidate Chemicals because they are included on certain authoritative lists or have been identified as a certain type of chemical. Those authoritative lists and chemical types are specified in sections 69502.2(a)(1) and (2), respectively, and for NPEs they include:

- NPEs are included in the European Union candidate list of Substances of Very High Concern in accordance with Article 59 of Regulation (EC) 1907/2006 on the basis of Article 57(f) for endocrine disrupting properties.
- NPEs are identified as bioaccumulative and environmentally toxic on Part A of the list of Chemicals for Priority Action, Oslo and Paris Conventions for the Protection of the Marine Environment of the North-East Atlantic.

Additionally, NPEs exhibit one or more exposure potential, toxicological, or environmental hazard traits as specified in sections 69402 through 69405 of Chapter 54 of Division 4.5 of Title 22 of the California Code of Regulations (Green Chemistry Hazard Traits for California's Toxics Information Clearinghouse).

Exposure to NPEs is associated with the following hazard traits:

- bioaccumulation,
- environmental persistence,
- immunotoxicity,
- wildlife developmental impairment,
- wildlife growth impairment,
- wildlife reproductive impairment,
- wildlife survival impairment.

Exposure to NPEs is associated with the following endpoints:

- changes in circulating immune cell numbers,
- malformations, adverse impacts on rate of development and metamorphosis in aquatic species,
- abnormalities in growth rates and body size in aquatic species,
- adverse changes in reproductive endocrine function, structure and function of reproductive organs, including intersex organs, secondary sex characteristics, and vitellogenin production,
- death and narcosis.

NPEs can impair growth, development, reproduction, and survival in fish, aquatic invertebrates, and algae. NPEs' toxicity to aquatic life increases as the ethoxylate chain length decreases. Long-chain NPEs are moderately to slightly toxic and NP is highly to very highly toxic. The European Chemicals Agency (ECHA) has identified 4-NP as a substance of very high concern as it is an endocrine disruptor in all fish species tested. NP and NPEs persist under low oxygen conditions and can accumulate in aquatic sediments. NP has the potential to bioaccumulate in aquatic organisms. Clearly defining the Candidate Chemical allows responsible entities and the public to understand the basis for listing laundry detergents containing NPEs as a Priority Product and which products are subject to this regulation.

Add Section 69511.8(c).

Purpose. This section identifies NPEs as the Candidate Chemical that is the basis for listing laundry detergents as a Priority Product and identifies the hazard traits associated with NPEs. Section 69503.5(b)(2)(A) requires that DTSC, in listing a Priority Product, specify the Candidate Chemicals that are the basis for the listing and the

hazard traits and environmental or toxicological endpoints known to be associated with these chemicals.

Necessity. The hazard traits identified in this section support DTSC's conclusion that exposure to NPEs from the use of laundry detergents has the potential to harm the aquatic environment. Specifying them is required by section 69503.5(b)(2)(A). The hazard traits associated with NPEs include bioaccumulation, environmental persistence, immunotoxicity, wildlife development impairment, wildlife reproductive impairment, and wildlife survival impairment. Clearly describing the hazard traits of the Candidate Chemical allows responsible entities and the public to understand the basis for listing laundry detergents containing NPEs as a Priority Product and identifies relevant factors that manufacturers must consider in their AAs.

Add Section 69511.8(d).

Purpose. This section specifies the toxicological endpoints associated with exposure to NPEs, in accordance with section 69503.5(b)(2)(A). These toxicological endpoints include changes in circulating immune cell numbers, malformation, adverse impacts on rate of development and metamorphosis in aquatic species, abnormalities in growth rates and body size in aquatic species, adverse changes in reproductive endocrine function, structure and function of reproductive organs, including intersex organs, secondary sex characteristics, and vitellogenin production, death and narcosis.

Necessity. This section is necessary to identify toxicological endpoints associated with NPEs as required by section 69503.5(b)(2)(A). Clearly describing the toxicological endpoints of NPEs associated with exposure to NPEs is necessary to ensure that responsible entities performing Alternatives Analyses can identify relevant factors for comparison of alternatives associated with NPEs, pursuant to section 69505.5(c), and to make manufacturers and users of laundry detergents aware of potential adverse impacts that could occur with normal use.

Add Section 69511.8(e).

Purpose. This section designates the Candidate Chemical(s), NPEs, as the Chemical(s) of Concern for the Priority Product. Section 69503.5(b)(2)(B) states that any Candidate Chemical that has been identified as the basis for a product being listed as a Priority Product is then designated as the Chemical of Concern for that product.

Necessity. This section is needed to clearly identify to responsible entities and the public that NPEs are the Chemicals of Concern in laundry detergents containing NPEs affected by this proposed regulation. Clearly identifying the Chemical(s) of Concern in a Priority Product ensures that responsible entities understand DTSC's concerns with the

product, understand that an Alternatives Analysis must identify and evaluate alternatives to the use of this chemical, and take the appropriate steps to comply with the applicable notification and reporting requirements included in the SCP regulations.

Add Section 69511.8(f).

Purpose. This section provides responsible entities a due date for submission of the Preliminary AA Report.

Necessity. This section is necessary to comply with section 69503.5(b)(3) and to provide responsible entities with a time frame for complying with the notification and reporting requirements included in the SCP regulations.

Benefits. Identifying the due date for submission of the Preliminary AA report clarifies the compliance expectations for responsible entities.

ECONOMIC IMPACT ASSESSMENT

Summary of Non-Major Regulation

As required by Government Code section 11346.3, DTSC assessed the potential for this proposed regulation to cause adverse economic impacts to California businesses and individuals. Following a review of available market data for laundry detergents and surveys of affected manufacturers and industry organizations, DTSC determined the proposed regulation is not a major regulation and is unlikely to have a significant adverse impact on business.¹ This Economic Impact Assessment is based on the assumption that manufacturers of laundry detergents containing NPEs will comply with the SCP regulations by submitting Priority Product Notifications and other applicable notifications to DTSC by the dates specified in regulation. All the of the manufacturers DTSC contacted that were still using NPEs indicated they were likely to replace NPEs with a different chemical in their laundry detergent products instead of submitting a two-stage AA Report. Trade association representatives also indicated that chemical replacement was the most likely scenario. Based on this information, DTSC does not expect any manufacturers to submit a two-stage AA, so costs for this scenario were not calculated.

¹ Major regulation: Government Code section 11342.548 defines a "major regulation" as any proposed adoption of a regulation that will have an economic impact on California businesses in an amount exceeding \$50 million dollars as estimated by the adopting agency. Section 57005 of the Health and Safety Code further requires DTSC (as part of the California Environmental Protection Agency, "CalEPA") to evaluate alternatives to a "major regulation." Section 57005(b) defines a "major regulation" as any rulemaking that will have an economic impact on business enterprises exceeding \$10 million.

DTSC estimates the implementation of the proposed regulation will result in a total economic impact on the state's businesses of not more than \$10 million. Therefore, this proposal is not a major regulation as defined by Health and Safety Code section 57005.

All manufacturers of laundry detergents with NPEs that sell their products in California must submit notifications. Costs incurred by out-of-state businesses to comply with these requirements fall outside the scope of the Economic Impact Analysis. The DTSC SCP program considers a business "California-based" if the business is incorporated or headquartered in California or employs over 50 percent of its employees in California. DTSC estimates the cumulative cost for all affected California manufacturers of laundry detergents with NPEs to submit Priority Product Notifications, Removal/Replacement Notifications, and to respond to DTSC's reviews of these submittals to be from \$58,080 to \$116,160. DTSC estimates there are a maximum of 11 manufacturers of laundry detergents containing NPEs that make and sell their products in California that would be required to comply with this regulation.

Each manufacturer is required to submit an online Priority Product Notification to DTSC, using its Safer Consumer Products Information Management System (CalSAFER) portal, that includes business contact information and the types, brand name(s), and product name(s) of the laundry detergents that contain NPEs. This is a one-time requirement. DTSC estimates that manufacturers would require a maximum of 16 hours to prepare a Priority Product Notification at a cost of approximately \$60/hour. DTSC estimates that each manufacturer could spend up to \$960 to complete the required notification.

According to section 69505.2 of the SCP Regulations, manufacturers of laundry detergents containing NPEs that do not submit AA Reports must submit one of the following notifications to the Department:

1. A Chemical Removal Intent and/or Confirmation Notification;
2. A Product Removal Intent and/or Confirmation Notification; or
3. A Product-Chemical Replacement Intent and/or Confirmation Notification.

Manufacturers choosing to submit a Removal/Replacement Notification in lieu of an AA Report are required to submit the appropriate Removal/Replacement Notification to DTSC via CalSAFER. This is a one-time requirement.

As noted above, manufacturers contacted by DTSC indicated that they were mostly likely to submit a Product-Chemical Replacement Intent and/or Confirmation Notification. DTSC estimates that manufacturers would require a maximum of 160 hours to prepare a Product-Chemical Replacement Intent and/or Confirmation Notification at a cost of approximately \$60/hour. DTSC estimates that each manufacturer could spend

up to \$9,600 to complete the required notification with maximum total costs for the estimated 11 or fewer affected manufacturers to be \$105,600.

More information regarding potential costs and benefits of this proposed regulation is provided in an attachment to the Economic and Fiscal Impact Statement (STD 399).

Creation or Elimination of Jobs

Compliance with the proposed regulation is not likely to result in the creation or elimination of jobs in California. DTSC anticipates zero ongoing costs associated with this proposed regulation. DTSC expects that the one-time costs associated with the regulation are low enough for all potentially impacted manufacturers to comply without impacting the number of jobs at their businesses.

Creation of New Businesses or Elimination of Existing Businesses

DTSC determined that this proposal is unlikely to result in the elimination of any laundry detergents manufacturers. DTSC anticipates zero ongoing costs associated with this proposed regulation. DTSC expects that the one-time costs associated with compliance with the regulation are low enough for all potentially impacted manufacturers to comply without eliminating their businesses.

Expansion of Businesses Currently doing Business

Statewide job expansion could occur in consulting services, product research and design, chemical and material science research and support, and marketing if a manufacturer elects to replace NPEs with a different chemical in their laundry detergent products.

Benefits of the Regulation to the Health and Welfare of California Residents, Worker Safety, and the State's Environment

A primary goal of the SCP regulations is to protect California's valuable and limited water resources and aquatic ecosystems from consumer product-derived chemical contamination. By listing laundry detergents containing NPEs as a Priority Product, DTSC sets in motion a strategy to reduce environmental exposure to NPEs from the use of this product. A reduction in NPEs means healthier aquatic ecosystems. A reduction in exposure to NPEs could assist in the conservation of threatened and endangered species, reduce wastewater treatment costs, and increase the use of recycled water.

REASONABLE ALTERNATIVES CONSIDERED

Government Code section 11346.2, subdivision (b)(4) requires DTSC to consider and evaluate reasonable alternatives to the proposed regulatory action and provide reasons for rejecting those alternatives. This section discusses alternatives evaluated and provides reasons why these alternatives were not included in the proposal. As explained below, no alternative proposed was found to be less burdensome and equally effective in achieving the purposes of the regulation in a manner than ensures full compliance with the authorizing law. DTSC has not identified reasonable alternatives that would lessen any adverse impact on small business.

Alternative 1: List laundry detergents containing NPEs as a Priority Product.

This option was selected due to potential serious ecological risks from exposure to NPEs in laundry detergents products.

Alternative 2: Wait for the U.S. Environmental Protection Agency (U.S. EPA) to regulate the use of laundry detergents containing NPEs under the Toxic Substances Control Act (TSCA).

DTSC decided to move forward with this proposed rulemaking, and did not select this alternative, because it is unclear if or when the U.S. EPA's proposed rule will be finalized. DTSC's proposed rule will regulate NPEs using a regulatory framework that is fundamentally different from regulation under TSCA. DTSC has chosen to move forward with its proposed rulemaking to protect California's aquatic environment.

Alternative 3: List hand and body washes containing triclosan as a Priority Product.

Hand and body washes containing triclosan share some of the same potential exposures and adverse impacts with laundry detergents containing NPEs. Triclosan is a known aquatic toxicant that when used as an antimicrobial in hand and body washes can pass through wastewater treatment plants and enter the aquatic environment. DTSC decided not to list hand and body washes containing triclosan at this time because its use in over-the-counter hand and body wash applications has been prohibited by the Food and Drug Administration.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

The SCP regulations established a unique approach to regulating Chemicals of Concern in consumer products that grants DTSC authority to take actions to protect people and the environment when such actions are outside the scope of other

regulatory programs. There are no equivalent federal regulations that require product manufacturers to determine if the chemical in their product is necessary, if there is a safer alternative, and to take steps to protect human health and the environment. To date, no federal regulation has been adopted to address the NPEs used in laundry detergents. DTSC has determined that no federal regulations overlap or conflict with this proposal to list laundry detergents containing NPEs as a Priority Product.

REFERENCES

Assembly Bill 1879 (Feuer, Chapter 559, Stats. 2008) was signed into law on September 29, 2008, laying the critical foundation for the Green Chemistry Program. This bill provides the authority and mandate to adopt proposed SCP regulations.

Division 4.5, Title 22, California Code of Regulations, Chapter 55. Safer Consumer Products.

DOCUMENT RELIED ON

DTSC (2019). Product-Chemical Profile for Nonylphenol Ethoxylates in Laundry Detergents, last revised March 2019.

APPENDICES

A. Proposed Regulatory Text