

## ECONOMIC AND FISCAL IMPACT STATEMENT

(REGULATIONS AND ORDERS)

STD 399 (REV 12/2013)

## ECONOMIC IMPACT STATEMENT

DEPARTMENT NAME t. of Toxic Substances Control	CONTACT PERSON Lisa Quagliaroli	EMAIL ADDRESS lisa.quagliaroli@dtsc.ca.gov	TELEPHONE NUMBER 916-445-3077
DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400 Safer Consumer Products: Listing Children's Foam-Padded Sleeping Products as a Priority Product			NOTICE FILE NUMBER Z-2016-0627-03

**A. ESTIMATED PRIVATE SECTOR COST IMPACTS** *Include calculations and assumptions in the rulemaking record.*

1. Check the appropriate box(es) below to indicate whether this regulation:

- a. Impacts business and/or employees       e. Imposes reporting requirements  
 b. Impacts small businesses                       f. Imposes prescriptive instead of performance  
 c. Impacts jobs or occupations                       g. Impacts individuals  
 d. Impacts California competitiveness               h. None of the above (Explain below):

*If any box in Items 1 a through g is checked, complete this Economic Impact Statement.**If box in Item 1.h. is checked, complete the Fiscal Impact Statement as appropriate.*

2. The Dept. of Toxic Substances Control estimates that the economic impact of this regulation (which includes the fiscal impact) is:

(Agency/Department)

- Below \$10 million  
 Between \$10 and \$25 million  
 Between \$25 and \$50 million  
 Over \$50 million *[If the economic impact is over \$50 million, agencies are required to submit a Standardized Regulatory Impact Assessment as specified in Government Code Section 11346.3(c)]*

3. Enter the total number of businesses impacted: 35-50\*Describe the types of businesses (Include nonprofits): Manufacturers, then importers, then retailers and assemblers\*(=see attachment)Enter the number or percentage of total businesses impacted that are small businesses: 30-44\*4. Enter the number of businesses that will be created: 0 eliminated: 0Explain: See attachment

5. Indicate the geographic extent of impacts:  Statewide  
 Local or regional (List areas): \_\_\_\_\_

6. Enter the number of jobs created: 0 and eliminated: 0Describe the types of jobs or occupations impacted: No changes in employment, wages, or the labor market in California from the proposed regulation. See attachment.

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here?  YES  NO

YES, explain briefly: There are no regulatory requirements to include flame retardants in children's foam-padded sleeping products and it costs less to manufacture polyurethane foam without flame retardants than to produce foam with flame retardants.

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**ECONOMIC IMPACT STATEMENT (CONTINUED)**

**B. ESTIMATED COSTS** *Include calculations and assumptions in the rulemaking record.*

1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? \$ 1,750 to 40,000
- a. Initial costs for a small business: \$ 50-800\* Annual ongoing costs: \$ 0\* Years: 2016-2019
- b. Initial costs for a typical business: \$ 50-800\* Annual ongoing costs: \$ 0\* Years: 2016-2019
- c. Initial costs for an individual: \$ 0\* Annual ongoing costs: \$ 0\* Years: 2016-2019
- d. Describe other economic costs that may occur: See attachment

2. If multiple industries are impacted, enter the share of total costs for each industry: N/A

3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements. *Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted.* \$ 0\*

4. Will this regulation directly impact housing costs?  YES  NO

If YES, enter the annual dollar cost per housing unit: \$ \_\_\_\_\_

Number of units: \_\_\_\_\_

5. Are there comparable Federal regulations?  YES  NO

Explain the need for State regulation given the existence or absence of Federal regulations: See attachment

Enter any additional costs to businesses and/or individuals that may be due to State - Federal differences: \$ 0

**C. ESTIMATED BENEFITS** *Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State's environment: See attachment

2. Are the benefits the result of:  specific statutory requirements, or  goals developed by the agency based on broad statutory authority?

Explain: The statute sets broad goals to promote safer consumer products and evaluate safer alternatives.

3. What are the total statewide benefits from this regulation over its lifetime? \$ Indeterminate

4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: DTSC does not anticipate significant expansion of businesses currently doing business in California due to these regulations. Per industry leaders, many businesses in the U.S. and California have already removed flame retardants from their products.

**D. ALTERNATIVES TO THE REGULATION** *Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: See attachment

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2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

Regulation: Benefit: \$ Indeterminate Cost: \$ 1,750 to 40,000

Alternative 1: Benefit: \$ Indeterminate Cost: \$ Indeterminate

Alternative 2: Benefit: \$ Indeterminante Cost: \$ Indeterminate

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives: N/A

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs? [ ] YES [X] NO

Explain: See attachment

E. MAJOR REGULATIONS Include calculations and assumptions in the rulemaking record.

California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.

1. Will the estimated costs of this regulation to California business enterprises exceed \$10 million? [ ] YES [X] NO

If YES, complete E2. and E3

If NO, skip to E4

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

Alternative 1:

Alternative 2:

(Attach additional pages for other alternatives)

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

Regulation: Total Cost \$ Cost-effectiveness ratio: \$

Alternative 1: Total Cost \$ Cost-effectiveness ratio: \$

Alternative 2: Total Cost \$ Cost-effectiveness ratio: \$

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding \$50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through 12 months after the major regulation is estimated to be fully implemented?

[ ] YES [X] NO

If YES, agencies are required to submit a Standardized Regulatory Impact Assessment (SRIA) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.

5. Briefly describe the following:

The increase or decrease of Investment In the State: Many children's products manufacturers no longer use flame retardants in their products. As a result, DTSC does not anticipate significant changes in investment in California due to these regulations.

The incentive for innovation in products, materials or processes: Many children's products manufacturers use flame retardant-free foam in their products. DTSC does not anticipate that this regulation will create significant incentives for innovation.

The benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: See attachment

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FISCAL IMPACT STATEMENT

A. FISCAL EFFECT ON LOCAL GOVERNMENT Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.

1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate) (Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ \_\_\_\_\_

a. Funding provided in \_\_\_\_\_ Budget Act of \_\_\_\_\_ or Chapter \_\_\_\_\_, Statutes of \_\_\_\_\_

b. Funding will be requested in the Governor's Budget Act of \_\_\_\_\_ Fiscal Year: \_\_\_\_\_

2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate) (Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ \_\_\_\_\_

Check reason(s) this regulation is not reimbursable and provide the appropriate information:

a. Implements the Federal mandate contained in \_\_\_\_\_

b. Implements the court mandate set forth by the \_\_\_\_\_ Court.

Case of: \_\_\_\_\_ vs. \_\_\_\_\_

c. Implements a mandate of the people of this State expressed in their approval of Proposition No. \_\_\_\_\_

Date of Election: \_\_\_\_\_

d. Issued only in response to a specific request from affected local entity(s).

Local entity(s) affected: \_\_\_\_\_

e. Will be fully financed from the fees, revenue, etc. from: \_\_\_\_\_

Authorized by Section: \_\_\_\_\_ of the \_\_\_\_\_ Code;

f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in \_\_\_\_\_

3. Annual Savings. (approximate)

\$ \_\_\_\_\_

4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations.

5. No fiscal impact exists. This regulation does not affect any local entity or program.

6. Other. Explain \_\_\_\_\_

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**FISCAL IMPACT STATEMENT (CONTINUED)**

**B FISCAL EFFECT ON STATE GOVERNMENT** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ \_\_\_\_\_

*It is anticipated that State agencies will:*

a. Absorb these additional costs within their existing budgets and resources.

b. Increase the currently authorized budget level for the \_\_\_\_\_ Fiscal Year

2. Savings in the current State Fiscal Year. (Approximate)

\$ \_\_\_\_\_

3. No fiscal impact exists. This regulation does not affect any State agency or program.

4. Other. Explain \_\_\_\_\_

**C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS** *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ \_\_\_\_\_

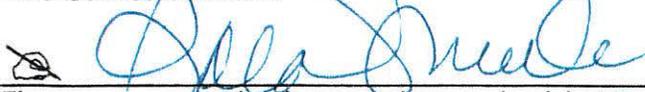
2. Savings in the current State Fiscal Year. (Approximate)

\$ \_\_\_\_\_

3. No fiscal impact exists. This regulation does not affect any federally funded State agency or program.

4. Other. Explain \_\_\_\_\_

FISCAL OFFICER SIGNATURE



DATE

4/8/16

*The signature attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impacts of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.*

AGENCY SECRETARY

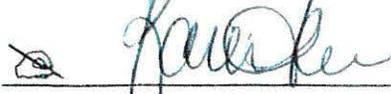


DATE

5/19/16

*Agency approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.*

DEPARTMENT OF FINANCE PROGRAM BUDGET MANAGER



DATE

6/17/16

# SAFER CONSUMER PRODUCTS REGULATIONS: LISTING CHILDREN'S FOAM-PADDED SLEEPING PRODUCTS CONTAINING TDCPP OR TCEP AS A PRIORITY PRODUCT

## Attachment to the Economic and Fiscal Impact Statement (Std. 399)

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### Section 1. Overview of the Safer Consumer Products Regulatory Program

The Safer Consumer Products (SCP) regulations (Title 22, California Code of Regulations (22 CCR) sections 69501-69510), adopted in October 2013, apply to all consumer products placed into the stream of commerce in California and establish science-based processes to identify Candidate Chemicals, identify and prioritize product-chemical combinations as Priority Products that include Chemicals of Concern, and analyze alternatives for improving the safety of consumer products. The regulations authorize the Department of Toxic Substances Control (DTSC) to implement regulatory responses, to protect public health or the environment, following an Alternatives Analysis (AA).

Sections 69503 – 69503.7 of the SCP regulations specify the process for identifying and prioritizing Priority Products and their Chemicals of Concern. As required by regulation, DTSC published the initial proposed list of Priority Products on March 13, 2014 and held public workshops throughout California to solicit stakeholder input. The initial proposed list of Priority Products includes:

- children's foam-padded sleeping products containing tris(1,3-dichloro-2-propyl) phosphate (TDCPP) or tris(2-chloroethyl) phosphate (TCEP);
- paint and varnish strippers containing methylene chloride; and
- spray polyurethane foam systems containing methylene diphenyl diisocyanates.

Before proposing to list a product-chemical combination as a Priority Product, DTSC must ensure that the product-chemical combination meets the following criteria:

- there must be potential human, environmental, or wildlife exposure to the Chemical(s) of Concern in the product through the use, handling, or disposal of the Priority Product; and
- there must be a potential for the exposure(s) to contribute to or cause significant or widespread adverse impacts to people or the environment.

DTSC must adopt each Priority Product in regulation in conformance with California's rulemaking law, the Administrative Procedure Act. Following the adoption of a Priority Product listing, responsible entities are required to take specific actions, which include:

- notifying DTSC that they manufacture the Priority Product; and

- removing or replacing the Chemical(s) of Concern in the product; or
- removing the product(s) from the California marketplace; or
- conducting an AA.

## **Section 2. Overview of the Rulemaking Proposal to List Children’s Foam-Padded Sleeping Products Containing TDCPP or TCEP as a Priority Product**

The proposed regulation defines “Children’s foam-padded sleeping products containing TDCPP or TCEP” as products designed for children, toddlers, babies, or infants to nap or sleep on that incorporate polyurethane foam mats, pads, or pillows that contain the chemical flame retardants TDCPP or TCEP. This proposed definition includes the following sub-products: nap mats, soft-sided portable cribs, play pens, play yards, infant travel beds, portable infant sleepers, bassinets, nap cots, infant sleep positioners, bedside sleepers, co-sleepers, and baby or toddler foam pillows. The identified sub-products are all used for sleeping, and this common attribute is the basis for their inclusion in this Priority Product. Achieving a very clear definition of the Priority Product will improve compliance with this regulation.

As required by regulation, DTSC considered a number of factors including the hazard traits, toxicological endpoints, and environmental fate associated with TDCPP and TCEP as well as potential adverse impacts to sensitive subpopulations including infants, children, and workers from using or handling children’s foam-padded sleeping products that contain one or both of these flame retardants.

Following this review and stakeholder input obtained during several public workshops, DTSC concluded that people, particularly infants and children, are likely to be exposed to TDCPP or TCEP from using or handling children’s foam-padded sleeping products that contain one or both of these chemical flame retardants and that these exposures may contribute to or cause significant and widespread adverse impacts. This determination is based on the widespread detection of TDCPP and TCEP in indoor and outdoor environments, the hazard traits and toxicological endpoints associated with each compound, and data showing widespread exposures to both TDCPP and TCEP in adults, children, and wildlife. In particular, exposures to these chemical flame retardants are associated with the following hazard traits and toxicological endpoints:

- For TDCPP, these include, but are not limited to, carcinogenicity (e.g., liver, kidney, and testicular tumors), genotoxicity (e.g., mutations, chromosomal aberrations, and cell transformation), developmental toxicity, reproductive toxicity, endocrine disruption (e.g., thyroid abnormalities), neurotoxicity, hepatotoxicity, nephrotoxicity, hematotoxicity, ocular toxicity, dermatotoxicity, and acute toxicity.
- For TCEP, these include, but are not limited to, carcinogenicity (e.g., kidney and thyroid tumors), genotoxicity (e.g., mutations, chromosomal aberrations, and cell transformation), reproductive toxicity, neurotoxicity, hepatotoxicity, and nephrotoxicity.

There are no legal requirements to include chemical flame retardants in children's foam-padded sleeping products, which are primarily marketed for use by children and in homes and day care centers.<sup>1</sup> TDCPP and TCEP are harmful chemical flame retardants that are not necessary to the proper function or use of these products. Furthermore, flame retardant-free foam is a widely available, cost effective alternative to foam made with flame retardants. As discussed below, DTSC anticipates that manufacturers will be able to substitute flame retardant-free foam in their products without suffering adverse economic impacts.

## Section 3. Summary of Economic and Fiscal Impacts, Findings, and Conclusions

### Overview

The proposed regulation primarily affects manufacturers of children's foam-padded sleeping products containing the chemical flame retardants TDCPP or TCEP.

The economic impact of this regulation to businesses that make or sell products in California<sup>2</sup> is significantly less than \$10 million;<sup>3</sup> thus, this regulation is not a major regulation. Given heightened consumer awareness of the health impacts associated with flame retardants and the wide availability, lower cost, and equivalent performance of flame retardant-free foam, DTSC expects manufacturers to opt to use flame retardant-free foam in their products. DTSC does not anticipate any increased costs to children's sleeping product manufacturers who opt to use flame retardant-free foam in their products since the cost of the foam is less than foam with chemical flame retardants. The principle costs to manufacturers will be associated with notifying DTSC that they produce the Priority Product. Because DTSC will provide responsible entities with a free, web-based tool to submit all required notifications and reports, manufacturers' costs of compliance will be mainly associated with the time it takes them to collect, review, and upload the required information.

### Flexible Polyurethane Foam

Flexible polyurethane foam is the product of the reaction of a polyol and a diisocyanate with water in the presence of catalysts and additives. When the reaction is complete, the raw materials are converted to a usable product. Most polyurethane foam is converted to usable products through two different production methods: slabstock or molding. The slabstock method is often used to produce foam for furniture cushioning, carpet cushion, and bedding and is the technique typically used for producing foam used in children's foam-padded sleeping products. The mix is poured onto a moving conveyor with sides from three to 4 feet high, where it reacts and expands into a slab. The continuous slab is then cut, stored, and cured for up to 24 hours, and then undergoes fabrication into useful shapes for a wide range of

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<sup>1</sup> Child restraint systems used in vehicles and aircraft and standard crib mattresses are excluded from this proposed rulemaking because they are required to meet federal flame retardant standards, which may include the use of chemical flame retardants.

<sup>2</sup> DTSC determined that the children's foam-padded sleeping products included in the proposed regulation are widely available for purchase online. Because all manufacturers could be impacted by this proposed regulation, they were included in this assessment regardless of their headquarters or manufacturing locations.

<sup>3</sup> Importers, assemblers, or retailers of these products are only required to take action should the manufacturers fail to comply with the requirements noted in Section 1. DTSC anticipates full compliance by product manufacturers; therefore, it did not assess impacts to other potentially impacted responsible entities.

applications. Almost all foam is fabricated in some form before it is used. Foam fabrication may be cutting the foam to the proper size, or it may involve bonding and shaping several layers of foam and other materials together to get a composite that will provide a specific level of performance.

Large children's products manufacturers typically purchase fabricated slabstock foam directly from foam manufacturers and are able to specify the chemical composition of the foam. Because chemical flame retardants increase the cost of finished foam, children's product manufacturers are unlikely to request the addition of these chemicals unless their products are required to meet federal flammability standards. By contrast, smaller manufacturers sometimes purchase "scrap" or "recycled" foam from fabricators; they cannot control and may not know the composition of the foam they purchase. Scrap or recycled foam may contain flame retardants without the knowledge of the children's product manufacturer purchaser.

### Use of Flame Retardants in Polyurethane Foam – A Declining Trend

Many companies have already removed chemical flame retardants, including TDCPP or TCEP, from their products; however, many products may still contain these flame retardants. Despite reported reductions in the use of chemical flame retardants, particularly in the U.S. and Europe, studies have detected TDCPP and TCEP in multiple children's products. These chemicals have also been widely detected in human tissues and bodily fluids, in house and office dust, and in the aquatic environment. Manufacturers located in countries with fewer limits on the use of flame retardants or who do not participate in recognized industry associations (e.g., JPMA) may continue to export products containing these flame retardant chemicals. These imported products are often offered for sale at discount stores frequented by bargain shoppers and the economically disadvantaged.

Recent state legislative actions have encouraged further reductions in the use of flame retardants in children's products. New York, Vermont, Maryland, and Minnesota banned the use of TDCPP and TCEP in certain children's products while revisions to California's Technical Bulletin 117-2013 allow furniture manufacturers to meet flame retardant standards without the use of chemical flame retardants.<sup>4</sup> Although Technical Bulletin 117-2013 does not directly impact children's products, this change is expected to increase the supply of flame retardant-free flexible polyurethane foam available to all manufacturers. Additionally, in 2012, the Center for Environmental Health (CEH) sued several baby and children's products and furniture manufacturers for failing to properly label products that contained TDCPP or TCEP as required by the Safe Drinking Water and Toxic Enforcement Act Of 1986. This law requires businesses to warn individuals if the products they are selling contain chemicals known to the State of California to cause cancer or reproductive toxicity; both TDCPP and TCEP are on the "Proposition 65" list established by the

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<sup>4</sup> Technical Bulletin 117, implemented in 1975, required materials, such as polyurethane foam, used to fill furniture be able to withstand a small open flame for at least 12 seconds. Furniture manufacturers typically met this standard through the use of chemical flame retardants. As a result, much of the polyurethane foam available for the production of children's products contained flame retardants. After it was determined that Californians had significantly higher levels of flame retardants in their bodies and that this exposure contributed to increased health risks, the standard was revised. Technical Bulletin 117-2013 changed the open-flame test to a smolder test, which furniture manufacturers can meet without the use of chemical flame retardants. While furniture manufacturers are still allowed to use flame retardants to meet the smolder test, it is expected that many will choose to use flame retardant-free polyurethane foam in their products due to the lower cost of this type of foam.

Office of Environmental Health Hazard Assessment (OEHHA). As part of the settlement, several manufacturers agreed to remove TDCPP and TCEP from their products rather than provide the required "Proposition 65" warning.

### Anticipated Economic Impacts to Manufacturers

This economic analysis is a general estimate of the costs reasonably anticipated to be incurred by a typical business entity. Individual companies may experience different impacts and bear different (lower or higher) costs than assumed or estimated.

DTSC estimates that there are 35-50 manufacturers worldwide that sell children's foam-padded sleeping products in California through online or retail outlets. According to industry leaders, most manufacturers have already removed TDCPP and TCEP from their products. Given this information, DTSC assumes that less than 20% of the manufacturers continue to use foam that contains TDCPP or TCEP. Therefore, the cost impacts described below and in the Std. 399 are likely over-estimated.

Based on the cost, availability, and performance of flame retardant-free polyurethane foam, DTSC assumes that affected manufacturers will choose to produce their products using flame retardant-free foam. As a result, they will be required to submit a one-time "Priority Product Notification," "Removal/Replacement Notification," and a "Removal/Replacement Confirmation Notification" using a free, web-based reporting system being developed by DTSC. DTSC assumes it will take manufacturers 1 to 16 hours to gather, review, and report the information required for all of the notifications. If manufacturers do not comply, then the duty to submit a one-time "Priority Product Notification" followed by a "Product Cease Ordering Notification" rest with importers of the Priority Product. If importers fail to comply with these requirements, then this responsibility rests with assemblers and retailers.

DTSC calculated estimated costs to manufacturers of children's foam-padded sleeping products containing TDCPP or TCEP (Table 1). DTSC assumed total compensation for staff responsible for reporting the required information to DTSC is approximately \$50/hour. Therefore, compliance costs could range from \$1,750 to \$40,000 for the 35-50 manufacturers who make or sell children's foam-padded sleeping products in California. The low-end of the range represents businesses with few products and the high-end represents very large businesses with numerous products.

Given the steep decline in the use of flame retardants in children's products, in general, the compliance costs noted above are likely overestimated. If we assume that only 20% of these manufacturers currently use foam that contains TDCPP or TCEP, then industry-wide compliance costs would range from \$350 to \$8,000.

**Table 1. Estimated costs to manufacturers.**

Total Hours	Total Manufacturers	
	35	50
1	\$1,750	\$2,500
16	\$28,000	\$40,000

DTSC also determined the economic impacts to small to medium-sized businesses. According to the JPMA, approximately 88% of their members are small to medium-sized businesses. Of the total manufacturers (see Table 1) potentially affected by this proposed regulation, DTSC estimates that 30-44 of them are small to medium-sized businesses (Table 2). These small to medium-sized manufacturers could collectively spend \$1,500 to \$35,000 to comply with the notification and reporting requirements. Industry leaders report that many manufacturers, including small to medium-sized businesses, no longer use chemical flame retardants in their children’s products; therefore, these costs are likely overestimated. If 80% of the small to medium-sized manufacturers are exempt from notification and reporting requirements because they use flame retardant-free polyurethane foam in their products, then industry-wide compliance costs for these businesses could be as low as \$300 to \$7,000.

**Table 2. Estimated costs for small to medium-sized businesses.**

Total Hours	Total Manufacturers	
	30	44
1	\$1,500	\$2,200
16	\$24,000	\$35,000

### Anticipated Benefits

The broad objective of the SCP regulations, adopted in October 2013, is a comprehensive, state-level effort to find safer alternatives to hazardous chemicals. The use of fewer hazardous chemicals reduces the potential for adverse impacts to the people of California and the environment. By listing Priority Products that contain Chemicals of Concern in regulation, DTSC sets in motion a preemptive strategy to reduce the use of toxic substances in product design and industrial processes with the aim of creating safer, more sustainable products that do not threaten human health nor persist in the environment. The use of fewer hazardous substances means healthier air quality, cleaner drinking water, and safer homes, schools, day care centers, and workplaces.

The direct benefit of this amendment to the SCP regulations is decreased exposure to TDCPP or TCEP in children’s foam-padded sleeping products to children, families, and childcare providers. DTSC anticipates that children’s sleeping products manufacturers will switch to flame retardant-free foam because they are not required to meet flame retardant standards for these products and they can continue to use their current manufacturing processes. Since flame retardant foam is cheaper, they will also be able to lower their production costs to some degree and may also benefit from profit increases. Because there are no anticipated barriers to the use of flame retardant-free foam in these products, DTSC anticipates that manufacturers will switch to flame retardant-free foam rather than completing an AA.

### Benefits to Consumers

Removing TDCPP and TCEP from children’s foam-padded sleeping products will lead to decreased concentrations of these chemicals in homes, day care centers, and schools (Example 1). By reducing the potential for exposure to these flame retardants, particularly to children and employees of day care centers and schools, the potential for adverse health effects, such as cancer, reproductive toxicity, developmental toxicity, and neurotoxicity, will also be reduced. Because people are exposed to chemical flame retardants

through the use of other common household products, including furniture and consumer electronics, DTSC is unable to quantify the potential health benefits. Nevertheless, it is reasonable to assume that public health benefits would accrue to children, families, and employees as a result of this regulation.

Play yards were selected in the examples below to demonstrate anticipated benefits to consumers and businesses because they have high annual sales and contain the largest amount of foam of the foam-padded sleeping products. In Example 1, DTSC estimates that consumers could avoid introducing up to 28,000 pounds annually of TDCPP or TCEP into their homes and workplaces. Because DTSC cannot estimate the amount of foam used in the other sub-products, we cannot estimate the total amount of flame retardant exposure that could be avoided annually. While DTSC anticipates that consumers will benefit from lower levels of TDCPP or TCEP in their homes and workplaces, it is not possible to quantify these benefits due to uncertainties in these estimates.

#### **Example 1 Potential Decrease in the Amount of Chemical Flame Retardants in Play Yards**

- approximately 2 million play yards were sold by JPMA member companies in the U.S. in 2012<sup>5</sup>
- play yard dimensions: 3.08 ft. x 2.25 ft. x 0.17 ft.
- play yard foam density: approximately 1.5 lbs./cubic ft.
- weight of foam in a play yard = play yard dimensions x foam density = approximately 1.35 lbs.
- estimated amount of chemical flame retardant in foam: 1-5% by weight

If all of the play yards sold in 2012 contained chemical flame retardants in the estimated percent range above, then the amount of flame retardants would range from 20,000 lbs. to 140,000 lbs. per 2 million play yards sold. If only 20% of manufacturers still use foam containing flame retardants, then the estimated amount of flame retardant used in play yards could range from 4,000 to 28,000 lbs.

#### **Benefits to Manufacturers**

Children's foam-padded sleeping products manufacturers that opt to purchase flame-retardant free foam will have somewhat lower production costs, as well as potential profit increases, because flame retardant-free foam generally costs less than foam with flame retardants. As discussed above, this savings is likely to be small since many children's products manufacturers do not purchase foam with added chemical flame retardants. Also, quantifying benefits that may accrue to children's product manufacturers is made more difficult due to uncertainties in the number of units sold for each sub-product covered by the proposed regulation, the type and costs of foam purchased by typical manufacturers, and the amount of foam used in each type of sub-product.

In the example shown below (Example 2), DTSC estimates that play yard manufacturers could save approximately \$0.80 per play yard by purchasing flame retardant-free foam. By assuming that 20% of the play yard manufacturers currently purchase foam containing flame retardants, DTSC estimates that they could save approximately \$320,000 annually by opting to use flame retardant-free foam to manufacture this product. DTSC anticipates that some manufacturers of the children's sleeping products covered by this proposed regulation will benefit from switching to lower cost flame retardant-free foam; however, the

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<sup>5</sup> JPMA 2013 Annual Industry Study – Final Report, Part 1 of 3 Manufacturer Data Summary.

uncertainties in the estimates and assumptions prevent DTSC from quantifying the industry-wide benefit. According to an industry representative, manufacturers that lower their production costs using flame retardant-free foam are not likely to pass those savings on to their customers through lower priced products; thus, the manufacturers may also benefit from increased profits.

#### **Example 2 – Economic Benefits of Manufacturing Play Yards with Flame Retardant-Free Foam**

- approximately 2 million play yards were sold by JPMA member companies in the U.S. in 2012.
- cost per board foot (1" x 12" x 12") of flexible foam:<sup>6</sup>
  - flame retardant-free: \$0.42-\$0.44 per board foot;
  - with flame retardants: \$0.49-\$0.50 per board foot (approximately 12-15% higher).
- cost per 37" x 26" x 2" polyurethane foam pad for a play yard:
  - flame retardant-free: \$5.60 - \$5.88;
  - with flame retardants: \$6.54 - \$6.68.
- cost savings:
  - Based on this information, a flame retardant-free foam pad for a play yard would cost approximately \$0.80 less than a foam pad with chemical flame retardants.
  - If 2 million play yards are sold per year and it is assumed that only 20% of manufacturers of children's foam-padded sleeping products include chemical flame retardants, then 400,000 play yards are assumed to include flame retardants. If the manufacturers of these 400,000 play yards remove chemical flame retardants from their products, there would be a \$320,000 cost savings for these manufacturers.

### **Alternatives Considered**

DTSC considered the following alternatives to the proposed regulation:

- Regulation: List TDCPP or TCEP in children's foam-padded sleeping products as the Priority Product:
  - This option was selected because it allows DTSC to quickly and effectively achieve the goal of significantly reducing children's exposures to chemical flame retardants.
- Alternative 1: List TDCPP or TCEP in all flexible polyurethane foam as Priority Product:
  - This was considered as an alternative but dismissed as an option due to potential conflicts with existing state or federal flame retardant standards for a wide variety of product types. The Priority Product was narrowed to focus on children's sleeping products because there are no regulatory requirements to include flame retardants in these products.
- Alternative 2: List TDCPP or TCEP in nap mats only:
  - This was considered as an alternative but dismissed because it would not result in the reductions in flame retardant exposure and improvements to children's safety sought by

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<sup>6</sup> American Excelsior Company

DTSC. The Priority Product was expanded to include a variety of children’s foam-padded sleeping products to achieve greater impact.

### Section 4. Methodology

Through consultation with the JPMA and CEH, as well as independent internet research, DTSC compiled a list of 33 companies that manufacture children’s foam-padded sleeping products for sale in the U.S. JPMA representatives indicated that their membership accounted for approximately 85% of all children’s product manufacturers doing business in the U.S. To account for potential economic impacts to manufacturers not identified in this survey, DTSC based the estimates on a range of 35-50 potentially affected manufacturers. Because children’s products are widely available online, DTSC assumed that all manufacturers are doing business in California and have the potential to be impacted by these regulations.

Industry leaders also reported that most children’s products manufacturers doing business in the U.S. have already removed TDCPP and TCEP from their products. Assuming that only 20% of children’s foam-padded sleeping products manufacturers still use foam containing TDCPP or TCEP, then there may only be 7 to 10 manufacturers impacted by these proposed regulations.

DTSC obtained price estimates for flame retardant-free foam and for foam containing flame retardants from the American Excelsior Company. It is important to note that the estimates used in this document do not reflect discounts that are offered to large purchasers of slabstock or fabricated foam.

**Table 3. List of manufacturers of children’s foam-padded sleeping products.**

Company Name	Type of Sub-Products
Angeles Corporation	Nap mats, napping cots
Arm's Reach Concepts Inc.	Bassinets/cradles, bedside sleepers, play yards, co-sleepers
Artsana/Chicco	Play yards, portable bassinets
Autopia	Nap mats
Baby Delight	Portable infant sleepers
Baby Trend Inc.	Play yards
Babyhome USA Inc.	Bassinets, travel cots
Children's Factory	Nap mats, foam pillows
Colgate Kids	Bassinet pads, portable foam pads
Delta Children	Play yards, bassinets, travel beds
Dex Products	Inclined sleepers, sleep wedges
Dorel Juvenile Group, Inc.	Nap mats, play yards, bassinet -- Various brands: Cosco, Safety 1st, Maxi-Cosi, Quinny
Evenflo	Play yards
Fisher Price	Play yards, portable infant sleepers, portable bassinets
Foundations Worldwide	Play yards

Company Name	Type of Sub-Products
Graco	Play yards, bassinets
Grantco	Nap mats
Halo Innovations	Bassinets
KidCo. Inc.	Travel beds, play yards, travel bassinets
Kids II, Inc.	Infant sleep positioners
Kolcraft Enterprises Inc.	Bassinets
LA Baby Products	Play yards
Lambs & Ivy	Nap mats
My First	Nap mats
Newell Rubbermaid	Play yards, bassinets
Orbit Baby	Bassinets
Ozark Mountain Kids	Nap mats
Peerless Plastic	Nap mats, nap cots
Regalo International	Portable toddler beds
Safe to Sleep	SleepMats
Simmons Kids	Play yards, bassinets
Tomy, Co.	Nap mats, bassinets, play yards, co-sleeper, sleep positioners
Vinbo	Play mats, play yards, bassinets, sleepers

## Section 5. Economic and Fiscal Impact Statement (Std. 399) – Sections with Additional Information

The following information supplements statements in the Economic and Fiscal Impact form (Std. 399) for the rulemaking proposal titled “Addition of Priority Products to Safer Consumer Products Regulation.”

**The section headings and numbers shown below correspond to sections in the Economic and Fiscal Impact Statement (Std. 399) form that require additional information.**

### A. ESTIMATED PRIVATE SECTOR COST IMPACTS

#### 3. Number of Businesses Impacted

- **Total Number of Businesses Impacted**

Through consultation with JPMA and CEH, as well as independent internet research, DTSC compiled a list of 33 companies manufacturing children’s foam-padded sleeping products. JPMA is a non-profit association representing approximately 250 manufacturers who make 95 percent of the prenatal to preschool products in the U.S. market. Based on this information, DTSC estimates that there are 35-50 manufacturers worldwide that produce children’s foam-padded sleeping products that are made or sold in California. DTSC assumes that greater than 80% of manufacturers do not add TDCPP or TCEP to children’s foam-padded sleeping products.

- **Types of Businesses**

DTSC assumes that manufacturers of children's foam-padded products that contain TDCPP or TCEP will comply with the SCP regulation notification requirements including the "Priority Product Notification," and likely "Chemical Removal Intent Notification" and "Chemical Removal Confirmation Notification." In the event a manufacturer does not comply, it shall be the duty of the importer, if any, to comply if DTSC provides notice to the importer. A retailer or assembler is required to comply with the requirements applicable to a responsible entity only if the manufacturer and the importer have failed to comply and DTSC provides notice to the retailer or assembler of such non-compliance by posting the information on the Failure to Comply List. If the manufacturer fails to comply and DTSC provides notice, the importer shall cease to place the product into the stream of commerce in California, and each retailer and assembler shall cease ordering the product and submit a Product Cease Ordering Notification, no later than 90 days after DTSC has provided such notice.

- **Number or Percentage of Total Businesses Impacted that are Small Businesses**

According to JPMA, approximately 88% of their member manufacturers are small to medium-sized businesses. DTSC estimates that there are 35-50 manufacturers worldwide, who make or sell their products in California, of children's foam-padded sleeping products; thus, 88% would equate to approximately 30-44 small to medium-sized businesses. Again, DTSC assumes that greater than 80% of these small to medium-sized businesses do not manufacture children's foam-padded sleeping products that contain TDCPP or TCEP.

#### **4. Number of Businesses Created or Eliminated**

This regulation will not result in the creation or elimination of children's products or polyurethane foam manufacturing businesses within California.

Many children's product manufacturers already use flame retardant-free foam in their children's products. Those that do not will be able to switch to flame retardant-free foam without changing their manufacturing processes because it has the same functional use as foam with flame retardants. Since flame retardant-free foam is widely available and less expensive, children's product manufacturers that adopt the use of this foam may be positively impacted and may experience some cost savings. In addition, opportunities for consulting businesses are likely to be limited.

There is an increasing demand for products made with flame retardant-free foam due to changes in other states' laws, growing consumer awareness, and the prevalence of lawsuits. In addition, it is cheaper to manufacture flame retardant-free polyurethane foam. Therefore, the foam manufacturing industry is not expected to lose business or face increased production costs and may see some benefits because of this proposed regulation.

Due to DTSC's CalSAFER online information management system and streamlined reporting requirements, there will be no need for companies to hire consultants to meet regularly reporting requirements.

## 6. Number of Jobs Created or Eliminated

This regulation will not result in the creation or elimination of jobs in the children's products or polyurethane foam manufacturing industries within California.

Manufacturers and assemblers of children's foam-padded sleeping products who choose to use flame retardant-free foam will not need to change their manufacturing processes because flame retardant-free foam has the same functional use as foam with flame retardants. It is also less expensive than foam treated with flame retardants and, because manufacturers are not likely to pass these savings to their consumers, they may realize some cost savings. Therefore, this regulation will not result in the creation or elimination of jobs in the children's products manufacturing industry.

There is an increasing demand for products made with flame retardant-free foam due to changes in other states' laws,<sup>7</sup> growing consumer awareness, and the prevalence of lawsuits. It is also easier and cheaper to manufacture flame retardant-free polyurethane foam. Based on consultation with major trade organizations representing manufacturers of the proposed Priority Products, DTSC believes that many manufacturers already use flame retardant-free foam instead of foam treated with TDCP and TDCPP in their children's products. Given these manufacturing considerations and the resultant increasingly abundant flame retardant-free foam, manufacturers may benefit from this change and this regulation will not negatively impact jobs in the foam manufacturing sector.

Due to DTSC's CalSAFER online information management system and streamlined reporting requirements, there will be no need for extra workers to comply with the regulatory reporting requirements.

## B. ESTIMATED COSTS

### 1. Lifetime Total Statewide Dollar Costs to Businesses and Individuals

Lifetime statewide costs are expected to be \$1,750 to \$40,000 collectively spent for all businesses and individuals who make or sell children's foam-padded sleeping products that contain TDCPP or TCEP in California.

For these calculations, DTSC assumed the following:

- 35 to 50 manufacturers produce children's foam-padded sleeping products containing TDCPP or TCEP.

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<sup>7</sup> -Maryland - Bans use of TCEP or TDCPP greater than 0.1% in specified products intended for children under age three, including baby products, toys, car seats, nursing pillows, crib mattresses and strollers (effective October 2014).  
-Minnesota - By July 1, 2018, manufacturers must stop selling children's products and upholstered residential furniture containing TDCPP and TCEP greater than 1,000 ppm in Minnesota.  
-New York - First in the nation ban on children's products containing the flame retardant TCEP (effective December 1, 2013). The Tris-free Children and Babies Act was expanded to include TDCPP (effective December 1, 2015).  
-Vermont - Bans the manufacturing of children's products and furniture containing 1,000 ppm (0.1%) TCEP and TDCPP on Jan. 1, 2014. After July 1, 2014, the sale in or into Vermont of any such products will be prohibited.

- Greater than 80% of manufacturers have already removed TDCPP or TCEP.
- Flame retardant-free foam:
  - costs less than foam with flame retardants;
  - has the same functional use as foam with flame retardants; and
  - will not require changes in the manufacturing processes used to produce children’s foam-padded sleeping products.
- Manufacturers will submit a one-time “Priority Product Notification” and “Removal/Replacement Notification” informing DTSC that they produce one or more of the sub-products of the children’s foam-padded sleeping products Priority Product and they intend to remove TDCPP or TCEP from their products.
- Manufacturers will submit a one-time “Removal/Replacement Confirmation Notification” once they are manufacturing products using flame retardant-free foam.
- It will take manufacturers 1 to 16 hours to gather, review, and report the information required for the “Priority Product Notification,” “Removal/Replacement Notification,” and “Removal/Replacement Confirmation Notification.”
  - The low-end of the range represents businesses with few products and the high-end represents businesses with numerous products.
  - Manufacturers will be able to submit all required notifications through a free, web-based system being developed by DTSC.
- Total compensation for staff responsible for gathering, reviewing, and reporting the required information to DTSC is estimated to be approximately \$50/hour.

Therefore, compliance costs for 35-50 manufacturers could range from \$1,750 to \$40,000. Given reports by industry leaders that a large number of manufacturers have already stopped using flame retardants in their children’s products, the costs are likely over-estimated. If 80% of the manufacturers identified by DTSC already use flame retardant-free polyurethane foam in their products and are not required to notify or report to DTSC then, the industry-wide compliance costs may be as low as \$350 to \$8,000 per manufacturer.

**Estimated costs to manufacturers.**

Total Hours	Total Manufacturers or Assemblers	
	35	50
1	\$1,750	\$2,500
16	\$28,000	\$40,000

**1.a. Initial Costs for a Small Business**

1-16 hours at \$50/hour to complete all of the required notifications. This is a one-time notification; therefore, there are no ongoing costs. Since small businesses typically make or sell fewer products than large businesses, DTSC anticipates that most small businesses should be able to complete the notification requirements in 8 hours or less.

#### **1.b. Initial Costs for a Typical Business**

1-16 hours at \$50/hour to complete all of the required notifications. This is a one-time notification; therefore, there are no ongoing costs.

#### **1.c. Initial Costs for an Individual**

Since flame retardant-free foam costs less than foam with flame retardants and offers equal performance, manufacturers and assemblers of children's foam-padded sleeping products will be able to produce these products at less than their current costs. Therefore, individuals are not expected to pay more for products made with flame retardant-free foam.

#### **1.d. Other Economic Costs that May Occur**

The only costs a manufacturer is expected to incur, as noted above, are related to the requirements to submit a "Priority Product Notification," a "Removal/Replacement Notification," and a "Removal/Replacement Confirmation Notification" to DTSC through a free, web-based system.

### **3. Annual Costs**

The "Priority Product Notification," "Removal/Replacement Notification," and "Removal/Replacement Confirmation Notification" are, collectively, a one-time requirement. Once a manufacturer submits these notices (and ensures the removal of TDCPP or TCEP from their products), they have fully complied with all applicable requirements. Thus, there are no annual reporting costs.

### **5. Explanation for the Need for State Regulation Given the Existence or Absence of Federal Regulations**

The principle federal law related to flame retardant standards is administered by the U.S. Consumer Product Safety Commission (CPSC). This law regulates mattresses and mattress pads under Title 16 Code of Federal Regulations Part 1632 and Part 1633 (16 CFR 1632 and 1633). Part 1632 is the standard for the flammability of mattresses and mattress pads, while Part 1633 contains the standard for flammability (open flame) for mattress sets. Bed mattresses, including mattresses for hard-sided cribs, are covered by 16 CFR 1632 and 1633. The requirements of 16 CFR 1632 and 1633 are performance-based. The regulation does not specify the use of flame retardant chemicals to meet the requirements. The regulation allows manufacturers to choose the means of complying with the regulation, which may include the use of inherently flame resistant materials, barriers, or flame retardant chemicals, while requiring that mattresses meet strict performance requirements.

CPSC does not regulate juvenile product pads and provides examples of the exempt category in 16 CFR 1632.1(a)(2). Exempt products include "car bed pads, carriage pads, basket pads, infant carrier and lounge pads, dressing table pads, stroller pads, crib bumpers, and playpen pads" (16 FR 1632). Each of these "juvenile product pads" is further defined in 16 CFR 1632.8 (16 CFR 1632). Mattresses in portable cribs with mesh or soft sides are not regulated under 16 CFR 1632.

Children's foam-padded sleeping products are not currently regulated for flame retardancy and therefore this regulation does not duplicate or conflict with federal regulations.

## C. ESTIMATED BENEFITS

### 1. Benefits of the Regulation<sup>8</sup>

The direct benefit of this proposed regulations is decreased exposure to TDCPP or TCEP in children's foam-padded sleeping products to children, families, and childcare providers. DTSC anticipates that children's sleeping products manufacturers will switch to flame retardant-free foam because they are not required to meet flame retardant standards for these products and they can continue to use their current manufacturing processes. Since flame retardant foam is cheaper, they will also be able to lower their production costs to some degree and may also benefit from profit increases. Because there are no anticipated barriers to the use of flame retardant-free foam in these products, DTSC anticipates that manufacturers will switch to flame retardant-free foam rather than completing an AA.

#### *Benefits to Consumers*

The direct benefit of this amendment to the regulations is decreased exposure to TDCPP or TCEP in children's foam-padded sleeping products to children, families, and child care providers. Removing TDCPP and TCEP from children's foam-padded sleeping products will lead to decreased concentrations of these chemicals in homes, day care centers, and schools (see Example 1). By reducing the potential for exposure to these flame retardants, particularly to children and employees of day care centers and schools, the potential for adverse health effects, such as cancer, reproductive toxicity, developmental toxicity, and neurotoxicity, will also be reduced. Because people are exposed to chemical flame retardants through the use of other common household products, including furniture and consumer electronics, DTSC is unable to quantify the potential health benefits. Nevertheless, it is reasonable to assume that public health benefits would accrue to children, families, and employees as a result of this regulation.

#### **Example 1 Potential Decrease in the Amount of Chemical Flame Retardants in Play Yards**

- approximately 2 million play yards were sold by JPMA member companies in the U.S. in 2012.<sup>9</sup>
- play yard dimensions: 3.08 ft. x 2.25 ft. x 0.17 ft.
- play yard foam density: Approximately 1.5 lbs./cubic ft.
- weight of foam in a play yard = play yard dimensions x foam density = approximately 1.35 lbs.
- estimated amount of chemical flame retardant in foam: 1-5% by weight

If all of the play yards sold in 2012 contained chemical flame retardants in the estimated percent range above, then the amount of flame retardants would range from 20,000 lbs. to 140,000 lbs. per 2 million play yards sold. If only 20% of manufacturers still use foam containing flame retardants, then the estimated amount of flame retardant used in play yards could range from 4,000 to 28,000 lbs. Because DTSC cannot estimate the amount of foam used in the other sub-products, we cannot estimate the total amount of flame retardant exposure that could be avoided annually. While DTSC anticipates that

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<sup>8</sup> Please refer to Section 3, "Anticipated Benefits" for a more comprehensive discussion of the benefits of this proposed regulation.

<sup>9</sup> JPMA 2013 Annual Industry Study – Final Report, Part 1 of 3 Manufacturer Data Summary.

consumers will benefit from lower levels of TDCPP or TCEP in their homes and workplaces, it is not possible to quantify these benefits due to uncertainties in these estimates.

### *Benefits to Manufacturers*

Children's foam-padded sleeping products manufacturers that opt to purchase flame-retardant free foam will have somewhat lower production costs, as well as potential profit increases, because flame retardant-free foam generally costs less than foam with flame retardants (See Example 2). As discussed above, this savings is likely to be small since many children's products manufacturers do not purchase foam with added chemical flame retardants. Also, quantifying benefits that may accrue to children's product manufacturers is made more difficult due to uncertainties in the number of units sold for each sub-product covered by the proposed regulation, the type and costs of foam purchased by typical manufacturers, and the amount of foam used in each type of sub-product.

#### **Example 2 – Economic Benefits of Manufacturing Play Yards with Flame Retardant-Free Foam**

- approximately 2 million play yards were sold by JPMA member companies in the U.S. in 2012.
- cost per board foot (1" x 12" x 12") of flexible foam: <sup>10</sup>
  - flame retardant-free: \$0.42-\$0.44 per board foot;
  - with flame retardants: \$0.49-\$0.50 per board foot (approximately 12-15% higher).
- cost per 37" x 26" x 2" polyurethane foam pad for a play yard:
  - flame retardant-free: \$5.60 - \$5.88;
  - with flame retardants: \$6.54 - \$6.68.

In the example shown below (Example 2), DTSC estimates that play yard manufacturers could save approximately \$0.80 per play yard by purchasing flame retardant-free foam. Assuming that approximately 20% of play yard manufacturers currently use foam with flame retardants then, approximately 400,000 play yards sold each year include foam with flame retardants. If these play yards were produced using flame retardant-free foam, manufacturers could save approximately \$320,000 in production costs.

DTSC anticipates that some manufacturers of the children's sleeping products covered by this proposed regulation will benefit from switching to lower cost flame retardant-free foam; however, the uncertainties in the estimates and assumptions prevent DTSC from quantifying the industry-wide benefit. According to an industry representative, manufacturers that lower their production costs using flame retardant-free foam are not likely to pass those savings on to their customers through lower priced products; thus, the manufacturers may also benefit from increased profits.

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<sup>10</sup> American Excelsior Company

## D. ALTERNATIVES TO THE REGULATION

### 1. Alternatives Considered

- **Regulation:** List TDCPP or TCEP in children’s foam-padded sleeping products as the Priority Product
  - This option was selected because it allows DTSC to quickly and effectively achieve the goal of significantly reducing children’s exposures to chemical flame retardants.
- **Alternative 1:** List TDCPP in all flexible polyurethane foam as Priority Product
  - This was considered as an alternative but dismissed as an option due to potential conflicts with existing state or federal for flame retardant standards for a wide variety of product types. The Priority Product was narrowed to focus on children’s sleeping products because there are no regulatory requirements to include flame retardants in these products.
- **Alternative 2:** List TDCPP in nap mats only
  - This was considered as an alternative but dismissed as it would not result in the reductions in flame retardant exposure and improvements to children’s safety sought by DTSC. The Priority Product was expanded to include a variety of children’s foam-padded sleeping products and added the flame retardant TCEP to the product-chemical combination description to achieve greater impact.

### 4. Performance Standards

The proposed regulation defines the Priority Product and its exceptions and lists the hazard traits and toxicological endpoints that satisfy the exposure and adverse impacts criteria. As such, the proposed regulation does not mandate the use of specific technologies or equipment, or prescribe specific actions or procedures. The notification requirements described above are already included the SCP regulations, 22 CCR sections 69501-69510, that were adopted in October 2013.

## E. MAJOR REGULATIONS

DTSC estimates that the costs to manufacturers or assemblers associated with the regulatory requirements for [1] notification to DTSC of the manufacture of a Priority Product, [2] submission of a “Removal/Replacement Notification,” [3] submission of a “Removal/Replacement Confirmation Notification,” or [4] submission of a “Product Cease Ordering Notification” will be significantly less than either threshold amount for a “major” regulation. Accordingly, DTSC is not required to prepare, and submit for approval, a “Standardized Regulatory Impact Assessment” because the estimated costs incurred by the list of children’s foam-padded sleeping products as a Priority Product will be less than \$50 million in the first year. Consequently, DTSC is not required to conduct macro-economic modeling for the proposed rulemaking pursuant to Section 11346 of the Government Code. Similarly, the estimated additional costs for the proposed regulation will be less than \$10 million (the CalEPA specific threshold pursuant to Section 57005 of the Health and Safety Code).

### • Benefits of the Regulations

Flame retardant-free foam is widely available, it costs less, and has the same functional use as foam made with flame retardants. Additionally, there are no legal requirements to include chemical flame

retardants in children's foam-padded sleeping products. Therefore, DTSC anticipates that manufacturers will choose to use flame retardant-free foam in their products rather than completing an AA.

DTSC assumes that manufacturers removing TDCPP and TCEP from children's foam-padded sleeping products will lead to decreased concentrations of these chemicals in homes, day care centers, and schools. By reducing the potential for exposure to these flame retardants, particularly to children and employees of day care centers and schools, the potential for adverse health effects, such as cancer, reproductive toxicity, and neurotoxicity, will also be reduced.

There will also likely be some cost savings, as well as potential profit increases, to manufacturers of children's foam-padded sleeping products, since flame retardant-free foam generally costs somewhat less than foam that includes flame retardants. Per industry representatives, these cost savings are unlikely to be passed to the consumers.