

Memorandum

To: American College for Obstetricians and Gynecologists

From: Victoria Rivapalacio

Re: Regulating Environmental Reproductive Toxins

## I. ENVIRONMENTAL TOXINS AND REPRODUCTIVE HEALTH

As our scientific and technological capabilities increase, we are both exposed to more chemicals and more aware of the implications of that exposure.<sup>1</sup> Scientific studies have increasingly focused on the potential effects of exposure to these chemicals, and special concern has been raised regarding the particularly vulnerable stages of life, fetal development, infancy, and childhood.<sup>2</sup>

There are more than 53,500 chemicals to which humans are regularly exposed,<sup>3</sup> and there are 12,860 chemicals that are currently manufactured in quantities of more than one million pounds a year.<sup>4</sup> A vast majority of those are untested as to their toxicity to the human body.<sup>5</sup> Some of these chemicals are bioaccumulative—they continue to accumulate in the human body with each incidence of exposure—and a survey of Americans by the U.S. EPA revealed nearly 700 of these chemicals present in the human body.<sup>6</sup> Some studies have concluded that there is a potential for harm at even very low doses<sup>7</sup> and that there is a special risk for fetuses and infants because of their increased risk of exposure and their developmental stage.<sup>8</sup> “Among children, chemical exposures are estimated to contribute to 100% of lead poisoning cases, 10% to 35% of asthma cases, 2% to 10% of certain cancers, and 5% to 20% of neurobehavioral disorders.”<sup>9</sup> Certainly, there is cause for action.

This memorandum, in an attempt to limit the scope of this wide-ranging topic, will address only current issues regarding known toxins that are affecting the reproductive capacity and health of women, men, and children, and will provide concrete examples of harm and possible ways to lessen exposure through legislation.

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<sup>1</sup> For example, our industrial development has increased our output of carbon dioxide, but we have also become more aware of how carbon dioxide is contributing to global warming. Jennifer Woodward, *Turning Down the Heat: What United States Laws Can Do to Help Ease Global Warming*, 39 AM. U.L. REV. 203, 203-208 (1989).

<sup>2</sup> MICHAEL P. WILSON, DANIEL A. CHIA, & BRYAN C. EHLERS, GREEN CHEMISTRY IN CALIFORNIA: A FRAMEWORK FOR LEADERSHIP IN CHEMICALS POLICY AND INNOVATION xii (Cal. Policy Research Ctr. 2006).

<sup>3</sup> STEERING COMM. ON IDENTIFICATION OF TOXIC AND POTENTIALLY TOXIC CHEMS. FOR CONSIDERATION BY THE NAT’L TOXICOLOGY PROGRAM, NATIONAL RESEARCH COUNCIL, TOXICITY TESTING: STRATEGIES TO DETERMINE NEEDS AND PRIORITIES 3 (Nat’l Acad. Press 1984) (hereinafter TOXICITY TESTING).

<sup>4</sup> Rachael Rawlins, *Teething on Toxins: In Search of Regulatory Solutions for Toys and Cosmetics*, 20 FORDHAM ENVTL. L. REV. 1, 2-3 (2009).

<sup>5</sup> *Id.* See also TOXICITY TESTING, *supra* note 3.

<sup>6</sup> WILSON, CHIA, & EHLERS, *supra* note 2, at xii.

<sup>7</sup> *Id.*

<sup>8</sup> E.g., Frederick S. vom Saal *et al.*, *Chapel Hill Bisphenol A Expert Panel Consensus Statement: Integration of Mechanisms, Effects in Animals and Potential to Impact Human Health at Current Levels of Exposure*, 24 REPRODUCTIVE TOXICOLOGY 18 (2007) (explaining that early life exposure to BPA can have persistent effects throughout life).

<sup>9</sup> WILSON, CHIA, & EHLERS, *supra* note 2, at xii.

## A. Bisphenol-A

The laws regarding Bisphenol-A (BPA) are rapidly changing. Canada and Japan are phasing out BPA from certain children's products.<sup>10</sup> Minnesota and Connecticut have both banned BPA from specific children's feeding products.<sup>11</sup> Twenty-one other states and municipalities have bills pending regarding the use of BPA<sup>12</sup> and there are multiple bills that have been proposed in the past year in the U.S. legislature to ban BPA from a variety of products.<sup>13</sup>

In California, there is currently a bill in the legislature that would ban BPA in various children's products<sup>14</sup> and there was also a recent attempt to add BPA to the list of chemicals on the Safe Drinking Water and Toxic Enforcement Act of 1986 – generally known as Proposition 65 – that would have required a labeling on all products that contained BPA so that consumers could be aware of the chemical's presence.<sup>15</sup>

This increase in legislative attention is due largely to the increase in scientific attention being paid BPA. Both everyday consumers and legislators have read the conclusions of recent scientific reports that reveal the potential harm being caused by a common level of exposure to BPA.<sup>16</sup> BPA has been linked to serious health concerns, such as “prostate and breast cancer, uro-genital abnormalities in male babies, a decline in semen quality in men, early onset of puberty in girls, metabolic disorders..., and neurobehavioral problems.”<sup>17</sup> New study results are being published regularly revealing possible new dangers, such as a recent study linking BPA to cell damage in post-menopausal women.<sup>18</sup>

Although the California Environmental Protection Agency's Developmental and Reproductive Toxicity (DART) Identification Committee – that made the final decision not to list BPA as a reproductive toxicant – cited a lack of conclusive evidence,<sup>19</sup> a vast majority of the published studies show that there is an association between BPA and

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<sup>10</sup> Press Release, Env'tl. Working Group et al., Vote Yes on SB 797 (Pavley-Liu) to Protect Children from the Artificial Hormone Bisphenol A (BPA) in Baby Bottles and Infant Formula (on file with author), available at [www.calwic.org/docs/state/2009/SB797support.doc](http://www.calwic.org/docs/state/2009/SB797support.doc).

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> Ban Poisonous Additives Act of 2009, H.R. 1523, 111th Cong. (2009); Ban Poisonous Additives Act of 2009, S. 593, 111th Cong. (2009); BPA-Free Kids Act of 2009, S. 753, 111th Cong. (2009).

<sup>14</sup> S.B. 797, 2008-2009 Leg. (Cal. 2009).

<sup>15</sup> Amy Littlefield, *California Panel Decides Against Requiring Warning Labels for Products Containing Bisphenol A*, L.A. TIMES, July 18, 2009, available at <http://www.latimes.com/news/local/la-me-bpa18-2009jul18,0,2769564.story>.

<sup>16</sup> E.g., Babies Online: The Blog, BPA Affects the Unborn Baby, <http://blogs.babiesonline.com/current-events/bpa-affects-the-unborn-baby/> (last visited Aug. 3, 2009) (a layman's interpretation of the science); Jill Replegle, *Lawmakers to Press for BPA Regulation*, CALIFORNIA PROGRESS REPORT, July 17, 2009, [http://www.californiaprogressreport.com/2009/07/committee\\_succe.html](http://www.californiaprogressreport.com/2009/07/committee_succe.html) (legislator's interpretation of the science).

<sup>17</sup> Vom Saal, *et al.*, *supra* note 8, at 23.

<sup>18</sup> Michele A. La Merrill & Wendy Hessler, *BPA Linked to Cell Damage in Post-Menopausal Women but Not Men, Younger Women*, ENVIRONMENTAL HEALTH NEWS, July 13, 2009, available at <http://www.environmentalhealthnews.org/ehs/newscience/bpa-linked-to-cell-damage-in-post-menopausal-women-but-not-men-younger-women/> (citing Yoon Jung Yang et al., *Bisphenol A Exposure is Associated with Oxidative Stress and Inflammation in Postmenopausal Women*, 109 ENVIRONMENTAL RESEARCH (2009)).

<sup>19</sup> Littlefield, *supra* note 15.

adverse health effects.<sup>20</sup> Interestingly, even the chairwoman of the DART committee, Dorothy Burk, stated that she would use glass bottles to feed her own baby.<sup>21</sup>

## B. Lead

Lead has already been recognized as a hazardous chemical,<sup>22</sup> but its presence persists in lipstick,<sup>23</sup> chocolate,<sup>24</sup> and vitamins.<sup>25</sup> (Fortunately, California regulates the amount of lead in dietary supplements through Proposition 65, but it is the only state that does so.<sup>26</sup> Additionally, California,<sup>27</sup> and then the federal government,<sup>28</sup> set limits on lead in candy, but trace amounts still exist.) Lead exposure has been linked to significant health and developmental problems, including “learning, language and behavioral problems such as lowered IQ, impulsiveness, reduced school performance, increases in aggression, seizures and brain damage, anemia, and, after long exposure, damage to the kidneys.”<sup>29</sup> In regards to specific harms to reproductive capacity, “[l]ead has also been linked to miscarriage, reduced fertility in both men and women, hormonal changes, menstrual irregularities and delays in the onset of puberty.”<sup>30</sup> Notably, there is no harmless level of exposure to lead, especially because it is a bioaccumulative chemical – it builds up in the body over time from all sources of exposure.<sup>31</sup>

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<sup>20</sup> Of the 231 studies determining low dose BPA effects in animals, 202 reported significant to clearly adverse effects while only 29 reported no evidence of harm. Frederick S. vom Saal, Bisphenol A (2009), <http://endocrinedisruptors.missouri.edu/vomsaal/vomsaal.html> (follow “Bisphenol A References” hyperlink). The 29 that reported no evidence of harm included all 11 of the chemical industry funded reports. *Id.*

<sup>21</sup> Littlefield, *supra* note 15.

<sup>22</sup> It is already included in the list of chemicals known to the State of California to cause cancer or reproductive toxicity pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986. OFFICE OF ENVTL HEALTH HAZARD ASSESSMENT, CAL. ENVTL. PROT. AGENCY, SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986: CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR REPRODUCTIVE TOXICITY 10 (June 19, 2009), *available at* [www.oehha.org/prop65/prop65\\_list/files/P65single061909.pdf](http://www.oehha.org/prop65/prop65_list/files/P65single061909.pdf).

<sup>23</sup> In October of 2007, the Campaign for Safe Cosmetics studied 33 brand-name lipsticks and reported that more than half of them contained lead. THE CAMPAIGN FOR SAFE COSMETICS, A POISON KISS: THE PROBLEM OF LEAD IN LIPSTICK 2 (Oct. 2007), *available at* [http://www.nottoopretty.org/downloads/A%20Poison%20Kiss\\_report.pdf](http://www.nottoopretty.org/downloads/A%20Poison%20Kiss_report.pdf). Eleven of the brands contained higher levels of lead than the FDA’s standard for lead in candy. *Id.*

<sup>24</sup> U.S. DEP’T OF HEALTH AND HUMAN SERVS., FDA, SUPPORTING DOCUMENT FOR RECOMMENDED MAXIMUM LEVEL FOR LEAD IN CANDY LIKELY TO BE CONSUMED FREQUENTLY BY SMALL CHILDREN 6-7 (2005), *available at* <http://www.fda.gov/ohrms/dockets/dockets/05d0481/05d-0481-ref0001.pdf>.

<sup>25</sup> FDA, Survey Data on Lead in Women’s and Children’s Vitamins (Aug. 2008), <http://www.fda.gov/Food/FoodSafety/FoodContaminantsAdulteration/Metals/Lead/ucm115941.htm>.

<sup>26</sup> Sandra Cottingham, *Lead Found in Multi-Vitamins: Ironic and Not “Tolerable”*, PRLOG, July 8, 2009, <http://www.prlog.org/10277638-lead-found-in-multivitamins-ironic-and-not-tolerable.html>.

<sup>27</sup> CAL. HEALTH & SAFETY § 11052 (2009).

<sup>28</sup> FDA, SUPPORTING DOCUMENT FOR RECOMMENDED MAXIMUM LEVEL FOR LEAD, part III (Nov. 2006), <http://www.fda.gov/Food/FoodSafety/FoodContaminantsAdulteration/Metals/Lead/ucm172050.htm#pbcan>.

<sup>29</sup> THE CAMPAIGN FOR SAFE COSMETICS, *supra* note 23, at 3.

<sup>30</sup> *Id.*

<sup>31</sup> S.B. 1712, 2008-2009 Leg. (Cal. 2008); OSCAR TARRAGO, AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, CASE STUDIES IN ENVIRONMENTAL MEDICINE (CSEM): LEAD TOXICITY, 22-29 (2007), *available at* <http://www.atsdr.cdc.gov/csem/lead/docs/lead.pdf>.

Scientific studies and surveys have recently focused on the amount of lead in lipsticks specifically and whether it is absorbed by the body.<sup>32</sup> These studies have found significant reasons for concern, revealing that women are indeed ingesting the lead from their lipsticks.<sup>33</sup> There was a recent attempt to pass legislation in California to limit lead in lipsticks sold in the state to “no more than an unavoidable trace” amount.<sup>34</sup> Despite passing in the Senate, it failed in the Assembly and California is still without legislative protection from lead in cosmetics.<sup>35</sup>

### C. Flame Retardants - Polybrominated Diphenyl Ethers (PBDE), Brominated Tris, Chlorinated Tris

California has very strict laws mandating flame retardants, resulting in a significant increase in exposure for Californians in contrast to other populations.<sup>36</sup> However, the same chemicals being used to flame retard bedding, mattresses, and furniture are known carcinogens.<sup>37</sup> It is uncertain whether these flame retardant chemicals have caused a measurable decrease in fire hazards because, although there has been a decrease in fire deaths in California since this legislation, there has been a similar decrease in fire death rates nationwide.<sup>38</sup> A universal decrease in fire death rates, regardless of furniture safety requirements, would signify that the increase in safety is due to other regulations, rather than the increase in flame retardant chemicals on furniture.<sup>39</sup> However, the exposure to the chemicals that are intended to protect consumers may, in fact, be causing significant harm.<sup>40</sup>

The California legislature has a bill currently pending that would exempt certain infant products from the fire retardant requirements of other seating furniture.<sup>41</sup> However, even if this bill passes, Californians are left exposed to other seating furniture.<sup>42</sup> A bill that would have prohibited the use of specific flame retardant chemicals in a more expansive set of products was defeated last year, in 2008.<sup>43</sup>

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<sup>32</sup> THE CAMPAIGN FOR SAFE COSMETICS, *supra* note 23, at 3-5.

<sup>33</sup> *Id.*

<sup>34</sup> S.B. 1712, 2008-2009 Leg. (Cal. 2008).

<sup>35</sup> Leginfo.ca.gov, S.B. 1712: Complete Bill History, [http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb\\_1701-1750/sb\\_1712\\_bill\\_20081130\\_history.html](http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_1701-1750/sb_1712_bill_20081130_history.html) (last visited Aug. 4, 2009).

<sup>36</sup> Russell Long, Op-Ed, *Fire Retardants and Baby Products: This Isn't Kid Stuff*, L.A. TIMES, July 13, 2009, <http://www.latimes.com/news/opinion/commentary/la-oe-long13-2009jul13,0,1475261.story>.

<sup>37</sup> Arlene Blum, Op-Ed, *Chemical Burns*, N.Y. TIMES, Nov. 19, 2006, available at [http://www.nytimes.com/2006/11/19/opinion/19blum.html?\\_r=2&oref=slogin](http://www.nytimes.com/2006/11/19/opinion/19blum.html?_r=2&oref=slogin); Arlene Blum, *The Fire Retardant Dilemma*, 318 SCIENCE 194, 194 (Oct. 12, 2007).

<sup>38</sup> Arlene Blum, *The Fire Retardant Dilemma*, *supra* note 37, at 194.

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*; Arlene Blum, *Chemical Burns*, *supra* note 37; Long, *supra* note 36 (listing cancer, birth defects, reproductive problems, thyroid disorders, hyperactivity, and learning disabilities as a sampling of potential results from exposure to fire retardant chemicals).

<sup>41</sup> S.B. 772, 2008-2009 Leg. (Cal. 2009).

<sup>42</sup> *See id.*

<sup>43</sup> Dan Aiello, *Leno's Toxic Flame Retardant Bill is Narrowed, Passes First Assembly Committee*, CAL. PROGRESS REPORT (July 21, 2009), [http://www.californiaprogressreport.com/2009/07/lenos\\_toxic\\_fur.html](http://www.californiaprogressreport.com/2009/07/lenos_toxic_fur.html).

## II. LEGISLATIVE ACTION

### A. General Legislation

To address ongoing issues, it is often useful to draft expansive legislation and set up a panel of specialists who are well suited to handle the issue.<sup>44</sup> This is even more appropriate when the topic is complex and requires a level of expertise that legislators cannot provide without assistance.<sup>45</sup> Using a piece of legislation to address an entire topic rather than a specific item allows for a more efficient procedural mechanism to deal with future events and unanticipated issues. In the case of chemicals, efficiency can save lives by quickly limiting exposure to toxic chemicals<sup>46</sup> and, thus, general legislation certainly has a specific appeal and important place in chemical regulation.

#### 1. California

##### a) The Safe Drinking Water and Toxic Enforcement Act of 1986

In 1986, Californians passed Proposition 65, the Safe Drinking Water and Toxic Enforcement Act,<sup>47</sup> in a stated attempt “to protect themselves... against chemicals that cause cancer, birth defects, or other reproductive harm.”<sup>48</sup> It requires public notification of the presence of chemicals that are included in the accompanying list.<sup>49</sup> That list is to be updated annually based on the conclusions of a panel of experts appointed by the state governor.<sup>50</sup>

In order for a new chemical to be listed, however, it must be proposed to California’s Office of Environmental Health Hazard Assessment (OEHHA) as a hazardous chemical through specific and stated avenues.<sup>51</sup> OEHHA has a scientific advisory board that consists of two committees – the Carcinogen Identification Committee (CIC) and the Developmental and Reproductive Toxicant (DART) Identification Committee – that may propose chemicals for listing.<sup>52</sup> Panelists for both committees are appointed by the governor, thus making the positions potentially politically charged.<sup>53</sup> In addition, the panelists are intended to be experts in the field in which the scientific board is meant to advise, but the positions are, of course, part time

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<sup>44</sup> See e.g., CAL. HEALTH & SAFETY § 25249.8 (2009) (obligating California’s governor to create a list of chemicals known to cause specific kinds of harm in collaboration with an appointed panel of scientists).

<sup>45</sup> See e.g., *id.*

<sup>46</sup> See e.g., Env’tl. Working Group et al., *supra* note 10 (explaining the need for the immediate passage of S.B. 797 in order to protect the 550,500 babies who will be exposed to BPA if protection is delayed a year).

<sup>47</sup> CAL. HEALTH & SAFETY § 25249.5-13 (1986).

<sup>48</sup> CAL. HEALTH & SAFETY Div. 20, Chap. 6.6 Note.

<sup>49</sup> CAL. HEALTH & SAFETY § 25249.8(a).

<sup>50</sup> CAL. HEALTH & SAFETY § 25249.8(b), (c), (d).

<sup>51</sup> OMB Watch, California Seeks to Add New Chemicals to Prop. 65 List, <http://www.ombwatch.org/node/10156> (last visited June 30, 2009).

<sup>52</sup> Office of Env’tl. Health Hazard Assessment, Proposition 65 in Plain Language!, <http://oehha.ca.gov/Prop65/background/p65plain.html> (last visited Aug. 4, 2009).

<sup>53</sup> CAL. HEALTH & SAFETY § 25249.12(a).

and each panelist has an outside job,<sup>54</sup> contributing to their expertise but also to their potential bias.<sup>55</sup>

Another route for listing a chemical is if an "authoritative body," as recognized by the experts making up either of the two committees, formally identifies a substance as a carcinogen or a reproductive toxin, OEHHA can list the chemical.<sup>56</sup> Authoritative bodies include the U.S. Environmental Protection Agency, the U.S. Food and Drug Administration, the National Institute for Occupational Safety and Health, the National Toxicology Program, and the International Agency for Research on Cancer.<sup>57</sup> Lastly, if the federal government requires that a chemical be labeled as hazardous in these ways or if the California Labor Code requires identification of the chemical, the chemical will be listed by OEHHA as one that is known to cause cancer or reproductive harm.<sup>58</sup>

OEHHA does not make recommendations or take positions on the listing of chemicals under consideration by the committee.<sup>59</sup> The committee determines whether a chemical meets the sufficient standard, stated in the legislation: "a chemical is considered known to the state to cause cancer or reproductive toxicity... if in the opinion of the state's experts it has been clearly shown through scientifically valid testing according to generally accepted principles to cause cancer or reproductive toxicity."<sup>60</sup> "Clearly shown" allows for the presence of conflicting evidence when listing a new chemical because "clearly shown" does not require scientific certainty.<sup>61</sup> This standard was chosen in order to release the scientific panels from the requirements of proof and to promote the valuation of safety above the profits of industry.<sup>62</sup> In fact, requiring scientific certainty would functionally eliminate any protection afforded by Proposition 65.<sup>63</sup> Despite this, however, because "clearly shown" is not a well-defined standard, the scientific panels tend to determine the evidence based on their understanding of the terms and creates a veil for potential politically motivated decisions.<sup>64</sup>

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<sup>54</sup> Office of Env'tl. Health Hazard Assessment, Proposition 65: Science Advisory Board Developmental and Reproductive Toxicant (DART) Identification Committee, [http://www.oehha.org/Prop65/policy\\_procedure/DARTmembers.html](http://www.oehha.org/Prop65/policy_procedure/DARTmembers.html) (last visited Aug. 5, 2009).

<sup>55</sup> For example, the Chairwoman of the DART committee is a dentist. *Id.* Dentists have a vested interest in retaining BPA's current level of use because BPA is used in dental sealants and fillings. *See* Renee Joskow, *et al.*, *Exposure to Bisphenol A from Bis-Glycidyl Dimethacrylate-Based Dental Sealants*, 137 JOURNAL OF THE AM. DENTAL ASS'N 353-362, 353 (2006) (stating that BPA is "a common component of composites and dental sealants" and that BPA is leached into the body through dental exposure). *But see* American Dental Association, ADA Positions & Statements: Bisphenol A and Dental Materials (2008), <http://www.ada.org/prof/resources/positions/statements/bisphenola.asp> (arguing that, although BPA is present in dental materials, the amounts are minimal).

<sup>56</sup> CAL. HEALTH & SAFETY § 25249.8(c).

<sup>57</sup> Office of Env'tl. Health Hazard Assessment, *supra* note 52.

<sup>58</sup> *Id.*

<sup>59</sup> Office of Env'tl. Health Hazard Assessment, Scientific Panel Decides Against Adding Perchlorate to Proposition 65 List of Toxic Chemicals (2005), [http://oehha.ca.gov/public\\_info/press/perchlorateP65press.html](http://oehha.ca.gov/public_info/press/perchlorateP65press.html).

<sup>60</sup> CAL. HEALTH & SAFETY § 25249.8(b).

<sup>61</sup> Joseph Guth, Comments at OEHHA's Developmental and Reproductive Toxicant Identification Committee's Public Meeting on Bisphenol A (July 15, 2009) *available at* [http://www.oehha.org/prop65/public\\_meetings/pdf/JosephHGuth0709.pdf](http://www.oehha.org/prop65/public_meetings/pdf/JosephHGuth0709.pdf).

<sup>62</sup> *See id.*

<sup>63</sup> *See id.*

<sup>64</sup> *See* Replogle, *supra* note 16 (quoting committee member Carl Keen saying, "[i]t doesn't meet my definition of clear").

The stated goals behind Proposition 65 are the reasons why general legislation is ideal for situations involving a highly changeable issue: a regulatory panel is in place to deal with new sources of harm and can protect consumers without passing a new piece of legislation.<sup>65</sup> Unfortunately, the DART committee does not tend toward listing new chemicals.<sup>66</sup> Additionally, its experts are appointed by the governor and political ties cannot separate themselves from the panel's decisions.<sup>67</sup> Fortunately, however, substances that are not listed under Proposition 65 may still be subject to regulation under other state environmental programs.<sup>68</sup>

#### b) The Safe Cosmetics Act of 2005

The Safe Cosmetics Act of 2005, which took effect in January of 2007, works with the list of chemicals listed as hazardous per Proposition 65 and grants the State Department of Health Services (DHS) the authority to investigate and make conclusions regarding the toxicity of cosmetics sold in California.<sup>69</sup>

This legislation was drafted to address the lack of regulation of cosmetics generally.<sup>70</sup> It recognized the special danger of cosmetics because of their increased use by women of childbearing age, which increases the likelihood of exposure of mothers, fetuses, and nursing children.<sup>71</sup> It acts on a general level because it does not address specific chemicals, but is severely limited because it is restricted to the chemicals listed on Proposition 65, or to the decisions of the same agencies that limit Proposition 65.<sup>72</sup>

#### c) Green Chemistry Initiative

The Green Chemistry Initiative is a new and innovative plan for revolutionizing California's methods for understanding how humans affect the environment, both in the manufacturing and consumption processes, and to provide an efficient method to protect consumers by reducing the use and release of hazardous chemicals.<sup>73</sup> It began in April of 2007, initiated by the California Environmental Protection Agency (Cal EPA) and led by the Department of Toxic Substances Control (DTSC), in order to "generate ideas, develop overall policy goals and make recommendations" in regards to "a comprehensive and unified approach to chemicals."<sup>74</sup>

Two laws were passed in September of 2008 under the Green Chemistry Initiative, one designating a time line pursuant to which DTSC must establish a process

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<sup>65</sup> See CAL. HEALTH & SAFETY Div. 20, Chap. 6.6 Note.

<sup>66</sup> Littlefield, *supra* note 15.

<sup>67</sup> See Press Release, Breast Cancer Fund & Environmental Working Group, Bisphenol A (BPA) and Proposition 65: Protect California's Kids: Support SB 297 (on file with author).

<sup>68</sup> Office of Env'tl. Health Hazard Assessment, *supra* note 59.

<sup>69</sup> CAL HEALTH & SAFETY § 111791-792 (2009); Cynthia Washam, *California Enacts Safe Cosmetics Act*, 114 ENVTL. HEALTH PERSPECTIVES A402 (July 2007), available at <http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1513294&blobtype=pdf>.

<sup>70</sup> CAL. HEALTH & SAFETY § 111791.

<sup>71</sup> CAL. HEALTH & SAFETY § 111791(e).

<sup>72</sup> See CAL HEALTH & SAFETY § 111791.5(b).

<sup>73</sup> See WILSON, CHIA, & EHLERS, *supra* note 2, at xi.

<sup>74</sup> DEP'T OF TOXIC SUBSTANCES CONTROL, CALIFORNIA GREEN CHEMISTRY INITIATIVE: FINAL REPORT 3 (2008), available at [http://www.dtsc.ca.gov/PollutionPrevention/GreenChemistryInitiative/upload/GREEN\\_Chem.pdf](http://www.dtsc.ca.gov/PollutionPrevention/GreenChemistryInitiative/upload/GREEN_Chem.pdf).

through which to identify chemicals of concern<sup>75</sup> and that established a Green Ribbon Science Panel for consulting purposes – a panel of experts to identify concerns and ensure that all DTSC decisions are grounded in science<sup>76</sup> – and the other creating a Toxics Information Clearinghouse “for the collection, maintenance, and distribution of specific chemical hazard traits and environmental and toxicological end-point data.”<sup>77</sup> The Clearinghouse would publish the information it gathers and publish it on a publicly accessible website in order to best disseminate the data to consumers.<sup>78</sup>

The creation of the Green Chemistry Initiative was specifically to address the impact of chemicals on the environment and public health in a proactive manner.<sup>79</sup> The goals for project are ambitious and forward-thinking:

The California Green Chemistry Initiative is an opportunity to accelerate technological innovation in materials science. It can catalyze research at California universities. It can help create the solutions needed to curb global warming and meet the goal of a 30% reduction in greenhouse gas emissions by 2020. Consumers would be protected against adverse effects of toxic substances in the products they use. Less floating non-biodegradable debris would help marine life and make our beaches cleaner. Fewer landfills and hazardous waste sites would be passed on to future generations.<sup>80</sup>

However, the Green Chemistry Initiative is still in its infancy and, thus, has yet to show if it will avoid the problems of enforcement and political bias of the general legislation projects before it. Additionally, it will require time to establish a fully functioning system that prevents harmful chemicals from being released into the environment and absorbed by the people who use products made with them.<sup>81</sup>

## 2. Federal Legislation

### a) Consumer Product Safety Act (CPSA) and the Federal Hazardous Substances Act (FHSA)

The Consumer Product Safety Act (CPSA),<sup>82</sup> enacted in 1972, created the U.S. Consumer Product Safety Commission (CPSC), which is charged with reducing or eliminating unreasonable risks of injury from consumer products.<sup>83</sup> The Federal Hazardous Substances Act (FHSA) requires the labeling of certain hazardous substances in order to alert consumers to potential harm.<sup>84</sup> However, the CPSA and the FHSA have been ineffective “as vehicles for regulating carcinogens, mutagens or reproductive

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<sup>75</sup> CAL. HEALTH & SAFETY § 25252 (2009)

<sup>76</sup> CAL. HEALTH & SAFETY § 25254 (2009).

<sup>77</sup> CAL. HEALTH & SAFETY § 25251 (2009).

<sup>78</sup> *See id.*

<sup>79</sup> *See* DEP’T OF TOXIC SUBSTANCES CONTROL, *supra* note 74, at 3; WILSON, CHIA, & EHLERS, *supra* note 2, at xi.

<sup>80</sup> DEP’T OF TOXIC SUBSTANCES CONTROL, *supra* note 74, at 4.

<sup>81</sup> S.B. 797 § 2(l), 2008-2009 Leg. (Cal. 2009).

<sup>82</sup> 15 U.S.C. §§ 2051-2089 (1976).

<sup>83</sup> U.S. Consumer Product Safety Comm’n, Consumer Product Safety Act, <http://www.cpsc.gov/businfo/cpsa.html> (last visited Aug. 4, 2009).

<sup>84</sup> U.S. Consumer Product Safety Comm’n, Federal Hazardous Substances Act, <http://www.cpsc.gov/BUSINFO/fhsa.html> (last visited Aug. 4, 2009).

toxins.”<sup>85</sup> For example, “the CPSC has identified relatively few banned hazardous substances, its list of banned toys and articles intended for use by children is short, and its safety standards generally focus on such products with more obvious hazards such as matchbooks, bicycle helmets, and swimming pool slides.”<sup>86</sup>

The legislation is written expansively, so that “under the FHSA, the CPSC has authority to ban or regulate substances that are hazardous and that may cause substantial injury or illness [and] under the CPSA, the CPSC may ban products that create an ‘unreasonable risk of injury,’ when ‘no feasible consumer product safety standard’ can adequately address that risk.”<sup>87</sup> However, both of these Acts required a high level of evidentiary proof “before action may be taken to protect the unknowing consumer from the risk of carcinogens, mutagens and reproductive toxins.”<sup>88</sup>

Both Acts, also, include a significant number of procedural steps that limit their capacity to offer reliable protection to the consumer.<sup>89</sup> For example, the CPSC must determine that a voluntary industry standard could not sufficient protection and that intervention into the industry is necessary.<sup>90</sup> Only after such a determination may the CPSC adopt a regulation and, even then, the regulation must impose the least burdensome requirement which would adequately reduce the stated risk.<sup>91</sup> These requirements severely limit the ability of these Acts to fulfill their stated purposes.<sup>92</sup> In practice, these laws have largely failed to accomplish what they were created to achieve.

#### b) Toxic Substances Control Act of 1976 (TSCA)

The Toxic Substances Control Act of 1976 (TSCA)<sup>93</sup> granted the U.S. Environmental Protection Agency (EPA) the authority to require specific safety testing of chemical substances and to restrict their use, if necessary.<sup>94</sup> The EPA must make a determination that it is in the public interest to regulate under TSCA rather than another Federal law, creating certain bureaucratic limitations.<sup>95</sup> Additionally, TSCA's regulatory reach is restricted by the specific exclusion of certain chemical substances, including food, drugs, cosmetics and components of cosmetics.<sup>96</sup> Although TSCA was intended to regulate the life cycle of chemicals that pose a significant risk to the environment and to human health, in application, “TSCA creates such burdensome factual and evidentiary requirements that it has proven largely ineffective.”<sup>97</sup>

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<sup>85</sup> Rawlins, *supra* note 4, at 23-24.

<sup>86</sup> *Id.*

<sup>87</sup> *Id.*

<sup>88</sup> *Id.*

<sup>89</sup> *See id.*

<sup>90</sup> *Id.*, at 24-25.

<sup>91</sup> *Id.*

<sup>92</sup> *See id.*

<sup>93</sup> 15 U.S.C. § 2601 et seq. (1976).

<sup>94</sup> EPA, Summary of Toxic Substances Control Act, <http://www.epa.gov/lawsregs/laws/tsca.html> (last visited Aug. 5, 2009).

<sup>95</sup> *See* Rawlins, *supra* note 4, at 32.

<sup>96</sup> 15 U.S.C. § 2602(2)(B); Rawlins, *supra* note 4, at 33. The TSCA states that “chemical substance” refers “any organic or inorganic substance of a particular molecular identity” that is not specifically excluded. 15 U.S.C. § 2602(2)(A).

<sup>97</sup> Rawlins, *supra* note 4, at 32.

### 3. International Examples

#### a) Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH)

In order to increase the protection of human health and the environment, the European Union established the Registration, Evaluation, Authorisation and restriction of Chemicals (REACH), which came into force June of 2007.<sup>98</sup> It unified various pieces of legislation and created one centralized and uniform system.<sup>99</sup> Its approach is proactive, requiring manufacturers and importers of substances to gather information on the properties of their chemical substances and register that information with a central agency – the European Chemicals Agency – before being permitted to market and sell either the substance or items developed with the substance(s).<sup>100</sup> The Agency functions “as the central point in the REACH system: it manage[s] the databases necessary to operate the system, co-ordinate the in-depth evaluation of suspicious chemicals and run a public database in which consumers and professionals can find hazard information.”<sup>101</sup> This mechanism prevents the externalization of costs by the manufacturers and protects the public from being exposed to unnecessary risk.<sup>102</sup>

The REACH Regulation shifts the onus of responsibility to industry; they are required to manage the risks from chemicals and to provide safety information on the substances they use.<sup>103</sup> However, this system may not be as effective in the United States, where the chemical and manufacturing industries have historically been known to present their own scientific studies “proving” the safety of chemicals, to the detriment of the consumer and the regulation system’s credibility.<sup>104</sup>

#### B. Specific Legislation

Specific legislation is responsive to discrete issues and is meant to address only that single issue. It is capable of addressing in very precise terms the methods for providing a solution and, thus, creates a clear guideline for compliance, but it is not written to address other issues, even if similar and related. It allows for urgent action when a regulatory system requires significant bureaucratic steps or has simply failed to act,<sup>105</sup> but it is not the most effective solution for comprehensive protection because these pieces of legislation are written on a chemical by chemical basis and are written only reactively.<sup>106</sup>

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<sup>98</sup> Health and Safety Executive, What is REACH?, <http://www.hse.gov.uk/reach/about.htm> (last visited Aug. 5, 2009).

<sup>99</sup> *See id.*

<sup>100</sup> *Id.*; EUROPA, What is REACH?, [http://ec.europa.eu/environment/chemicals/reach/reach\\_intro.htm](http://ec.europa.eu/environment/chemicals/reach/reach_intro.htm) (last visited Aug. 5, 2009).

<sup>101</sup> *Id.*

<sup>102</sup> *See id.*

<sup>103</sup> *Id.*

<sup>104</sup> *See e.g.*, Jonathan M. Sarnet & Thomas A. Burke, *Turning Science into Junk: The Tobacco Industry and Passive Smoking*, 91 AM. JOURNAL OF PUBLIC HEALTH 1742, passim (2001), available at <http://www.ajph.org/cgi/reprint/91/11/1742>.

<sup>105</sup> *See* Fran Pavley and Carol Liu, Senate Bill 787: Toxic-Free Babies and Toddlers Act 1 (June 29, 2009), available at [www.calwic.org/docs/state/2009/SB797fact.doc](http://www.calwic.org/docs/state/2009/SB797fact.doc).

<sup>106</sup> *See California OKs phthalates Ban on Children’s Products*, REUTERS, Oct. 15, 2007, <http://www.reuters.com/article/healthNews/idUSN1443724320071015> (quoting California Governor

## 1. California

### a) The Toxin-Free Infants and Toddlers Act

California Senators Fran Pavley and Carol Liu proposed the Toxin-Free Infants and Toddlers Act in February of this year, that would prohibit the manufacture, sale, or distribution of drinking containers that contain bisphenol A and would also prohibit the manufacture, sale, or distribution of liquid infant formula in a can or plastic bottle containing bisphenol A.<sup>107</sup> This Act is meant to immediately limit the amount of BPA that is leached into baby food products while there is an absence of action due to the time involved for the Green Chemistry Initiative to develop its regulatory systems and strength.<sup>108</sup> It is currently in the Assembly, awaiting its third reading and a vote.<sup>109</sup>

### b) The Phthalates Bill

Beginning January of this year, four types of phthalates are banned from children's products<sup>110</sup> that are manufactured, sold, or distributed in the State of California.<sup>111</sup> Based on the "extensive scientific literature" concluding that phthalates are associated with adverse health effects, the California legislature acted to address this specific concern.<sup>112</sup>

## 2. Other States and Cities

Cities and states, unwilling to wait for the federal government to act, have been passing laws to regulate individual chemicals within their jurisdictions.<sup>113</sup> For example, legislation regarding BPA has been proposed in various places throughout the country. June 4th of this year, Connecticut Governor M. Jodi Rell signed into law a ban on the use of BPA in food containers, including baby formula cans and baby food jars, starting in 2011.<sup>114</sup> Minnesota has banned the use of BPA in children's food and drink containers,<sup>115</sup> and a similar law has been proposed in Wisconsin.<sup>116</sup> Additionally,

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Arnold Schwarzenegger saying, "While I believe the circumstances related to phthalates warrant taking action now, I do not believe that addressing this type of concern in the legislature on a chemical by chemical, product by product basis is the best or most effective way to make chemical policy in California").

<sup>107</sup> S.B. 797, 2008-2009 Leg. (Cal. 2009).

<sup>108</sup> Pavley & Liu, *supra* note 105, at 1.

<sup>109</sup> Leginfo.ca.gov, Complete Bill History: S.B. No. 797, [http://www.leginfo.ca.gov/pub/09-10/bill/sen/sb\\_0751-0800/sb\\_797\\_bill\\_20090716\\_history.html](http://www.leginfo.ca.gov/pub/09-10/bill/sen/sb_0751-0800/sb_797_bill_20090716_history.html) (last visited Aug. 5, 2009).

<sup>110</sup> It is particularly interesting to note that this piece of legislation does not include an age range to determine what constitutes a "child." Specialized Technology Resources, Inc., *News Alert: California Will Enforce Phthalates Ban on January 1, 2009*, THE MONITOR, Dec. 5, 2008, <http://ws.strlab.com/news/alert/?op=n&n=0000000049>.

<sup>111</sup> CAL. HEALTH & SAFETY § 108937 (2009).

<sup>112</sup> CAL HEALTH & SAFETY § 108935-9 (2009).

<sup>113</sup> Maureen Turner, *Legislating Toxicity: Will Massachusetts adopt European-Style Regulations on Products Made With Potentially Dangerous Chemicals?*, VALLEY ADVOCATE, July 9, 2009, <http://www.valleyadvocate.com/article.cfm?aid=10000>.

<sup>114</sup> 2009 CONN. PUB. ACT 09-103..

<sup>115</sup> 2009 MINN. ALS 40.

<sup>116</sup> Meg Kissinger, *Bill Would Ban BPA in Baby Products*, JS ONLINE, June 9, 2009, <http://www.jsonline.com/watchdog/watchdogreports/47482847.html>.

Chicago, Illinois and Suffolk County, New York have enacted their own city-wide bans.<sup>117</sup>

### III. PROCEDURAL CONCERNS

The current system, with both general and specific legislation, is reaction-based and cannot adequately protect consumers from the thousands of chemicals to which each person is exposed on a regular basis. Consumer product safety review is reactionary because it is “generally limited to post-market review on a product by product basis with the difficult burden of proof as to toxicity and exposure on the government.”<sup>118</sup> This problem demands that government chemical manufacturers prove their chemicals safe before they were used in products and product manufacturers prove their products safe before they enter the market in order to create a system where consumers do not have to bear the risks of possible hazards.<sup>119</sup>

Additionally, there is not sufficient enforcement of laws that are currently in place or regard for the information that is already available. For example, “a 1988 National Institute of Occupational Safety and Health at NIH report to a congressional subcommittee... analyzed 2,983 substances in cosmetics and found 884 cosmetic ingredients that had been reported to the Government as toxic substances.”<sup>120</sup> Manufacturing companies need to refrain from using ingredients that are currently regarded as toxins<sup>121</sup> and regulations require significant oversight to ensure compliance and to monitor the introduction of new chemicals.<sup>122</sup> The best mechanism for ensuring compliance would likely be a program similar to the REACH system or a federal program modeled after California’s Green Chemistry Initiative because both require data from manufacturers before the product is allowed on the market.<sup>123</sup>

### IV. THE CHEMICAL AND MANUFACTURING INDUSTRIES

The chemical and manufacturing industries are a powerful and well-funded source of lobbying and mass marketing. For example, in the first three months of 2009, allied groups defending the use of BPA spent nearly \$1.6 million on lobbying and more than \$50 million in the past ten years.<sup>124</sup> This money is spent exclusively to ensure that legislation, drafted in response to scientific reports questioning the safety of products, does not progress.<sup>125</sup>

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<sup>117</sup> *Bill Would Ban BPA From Cups, Baby Bottles*, WASAU DAILY HERALD, <http://www.wausaudailyherald.com/article/20090706/WDH0101/907060512>

<sup>118</sup> Rawlins, *supra* note 4, at 23.

<sup>119</sup> Gina Solomon, *Child Safety: Don’t Overlook the Baby Bottle*, L.A. WATTS TIMES, July 30, 2009, <http://www.lawattstimes.com/health-mainmenu-53/954-child-safety-dont-overlook-the-baby-bottle.html>.

<sup>120</sup> Rawlins, *supra* note 4, at 16-17.

<sup>121</sup> *Id.*

<sup>122</sup> See Rawlins, *supra* note 4, at 39.

<sup>123</sup> See e.g., Health and Safety Executive, *What Is Reach?*, <http://www.hse.gov.uk/reach/about.htm> (last visited Aug. 6, 2009).

<sup>124</sup> Replogle, *supra* note 16.

<sup>125</sup> See e.g., *id.*

## A. Lobbying

There is a significant amount of time and money invested in lobbying by the chemical industries and the organizations that manufacture the consumer products that are affected.<sup>126</sup> There are also certain regular strategies that are regularly used in order to achieve their results. One lobbying strategy is to call into question the science behind the data stating that a chemical causes harm<sup>127</sup> and another is to question the amount of the chemical present in any single product, how much is absorbed in the body, and, thus, whether the presence of the chemical is sufficient to cause harm.<sup>128</sup> Either of these approaches is often sufficient to create enough doubt in the minds of the legislators to prevent a protective bill from passing.

## B. Marketing

These industries have also used marketing to their advantage to stave off attempts at regulation.<sup>129</sup> In regards to BPA, for example, the North American Metal Packaging Alliance, Inc. (NAMPA) met on May 28, 2009 to discuss options for how to properly and comprehensively address the increased national attention and corresponding attempts at legislation.<sup>130</sup> At the meeting, NAMPA members suggested using fear tactics, such as implying to consumers and legislators that baby food would disappear or become prohibitively expensive, and NAMPA, recognizing that obtaining a scientific spokesperson would be unlikely, the members determined that their ideal spokesperson would be a pregnant mother.<sup>131</sup> These marketing campaigns are both common and blatant attempts to confuse and mislead the general public and redirect the debate away from the scientific research.<sup>132</sup>

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<sup>126</sup> See e.g., *id.*

<sup>127</sup> E.g., Bill Allayaud, Dir. of Gov't Affairs, Testimony at OEHHA's Developmental and Reproductive Toxicity Identification Committee Meeting, Oakland, Ca., July 15, 2009, *available at* <http://www.ewg.org/California-Urged-To-Add-BPA> ("Industries that produce or use BPA frequently misrepresent the state of the scientific evidence and regulatory decisions. In particular, the American Chemistry Council (ACC) and Grocery Manufacturers Association (GMA), in their written comments to the Committee, mischaracterize the findings on BPA toxicity of both the National Toxicology Program and the federal Food and Drug Administration.").

<sup>128</sup> Cynthia Washam, *California Enacts Safe Cosmetics Act*, 114 ENVIRONMENTAL HEALTH PERSPECTIVES A402, A402 (July 2006), *available at* <http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1513294&blobtype=pdf> (quoting the director of the Cosmetic Ingredient Review as saying "the dose creates the danger").

<sup>129</sup> See e.g., N. Am. Metal Packaging Alliance, Inc., Meeting Minutes from BPA Joint Trade Association Meeting on Communications Strategy, Washington, D.C., May 28, 2009, *available at* <http://www.ewg.org/files/BPA-Joint-Trade-Association.pdf>.

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> See e.g., Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: Some Evidence of Market Manipulation*, 112 HARV. L. REV. 1420, 1451-1466 (1999) (reviewing examples of the tobacco industry's manipulation of the market after scientific studies had shown the harms of smoking).

## V. RECOMMENDATIONS

### A. General Conclusions

The most significant barriers to protecting consumers from reproductive toxins are the chemical industry<sup>133</sup> and the legislative process.<sup>134</sup> The chemical industry should not fund the studies being used for regulatory purposes; the science must come from independent companies with independent funding sources.<sup>135</sup> The legislative process's inherent limitations typically protect constituents from frivolous legislation but, in the case of chemical regulation, works great harm by allowing a significant period of time, during which consumers are exposed to harm, before complaints are brought and the regulatory process is triggered.<sup>136</sup>

The Green Chemistry Initiative has the capacity to change that barrier to consistent and reliable protection.<sup>137</sup> The Initiative has great potential for changing California's current chemical regulation system because it is actively addressing the largest impediment to true protection: that significant harm must be experienced by unwitting consumers and then linked to a specific chemical, backed with substantial evidence, before regulation occurs.<sup>138</sup> However, although the Initiative's Report accurately stated that "[c]orrecting [current] problems will require much more than isolated chemical bans and other piecemeal approaches that currently characterize the Legislature's efforts in this arena,"<sup>139</sup> the general legislation model, of which the Green Chemistry Initiative is an example, will not provide sufficient protection unless the other inhibiting factors, such as politically biased scientific reports and lax enforcement, are also solved.<sup>140</sup>

"[A] modern, comprehensive chemicals policy is essential to placing California on the path to a sustainable future."<sup>141</sup> This approach should be viewed as an opportunity to both redirect current industry and to create a new framework and system of oversight.<sup>142</sup> Creating nontoxic alternatives to current products is a job-creation opportunity that will expand as resources are shifted to more environment and health friendly products.<sup>143</sup> Creating this system "will require a long-term commitment to leadership on the part of California policymakers"<sup>144</sup> and vocal participation from the

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<sup>133</sup> See e.g., Sarnet & Burke, *supra* note 103, *passim*.

<sup>134</sup> See generally, Rawlins, *supra* note 4. Not addressed in this memorandum, but worth noting is that a third significant barrier to legislation is science's research approach. *Id.* at 22. "In order to understand the full scope of harm, scientists need to study how different chemicals and the ingredients in consumer products interact, rather than taking only the ingredient-by-ingredient approach." *Id.*

<sup>135</sup> *Id.* at 38-44.

<sup>136</sup> *Id.*

<sup>137</sup> See DEP'T OF TOXIC SUBSTANCES CONTROL, *supra* note 74, at 3.

<sup>138</sup> See Rawlins, *supra* note 4, at 39-40.

<sup>139</sup> WILSON, CHIA, & EHLERS, *supra* note 2, at xi.

<sup>140</sup> See generally Rawlins, *supra* note 4.

<sup>141</sup> WILSON, CHIA, & EHLERS, *supra* note 2, at xi.

<sup>142</sup> Rawlins, *supra* note 4, at 47.

<sup>143</sup> *Id.*

<sup>144</sup> WILSON, CHIA, & EHLERS, *supra* note 2, at xi.

organizations and communities that desire change. It is only through a comprehensive approach that women, men, and children can have faith in product safety.<sup>145</sup>

## B. Next Steps

For the American College of Obstetricians and Gynecologists (ACOG) to remain abreast of these issues, it would be useful to assign to a legal researcher to delve more deeply into specific pieces of legislation ACOG is seeking to support. It would also be useful to have more data on how REACH and the Green Chemistry Initiative intend to enforce compliance and how that would translate in practical terms to regulating industry.

Additionally, it would be beneficial to have more data on marketing campaigns in order for ACOG to address those, when necessary. ACOG should also look into compiling a scientific report – or use a current compilation of data from a trusted source – in order for ACOG to state its position more clearly regarding the science involved in these issues.

In order to protect consumers from BPA, ACOG should follow up with Senator Fran Pavley's office in order to offer support of Senate Bill No. 797, currently in the California Assembly, waiting for passage.<sup>146</sup> This bill would allow for immediate protection from BPA, rather than waiting for federal action or for the Green Chemical Initiative to take effect.<sup>147</sup>

In order to protect consumers from flame retardants, ACOG would need to contact Senator Mark Leno and voice support for Senate Bill No. 772.<sup>148</sup> This bill would make essential progress toward removing California's flame retardant requirements by making an exemption to current regulations for strollers, infant carriers, bassinets, and nursing pillows.<sup>149</sup>

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<sup>145</sup> See Rawlins, *supra* note 4, at 49-50.

<sup>146</sup> Senator Fran Pavley's contact information is provided at this web address: <http://dist23.casen.govoffice.com/>.

<sup>147</sup> Pavley & Liu, *supra* note 105, at 1.

<sup>148</sup> Senator Mark Leno's contact information is provided at this web address: <http://dist03.casen.govoffice.com/index.asp>, click on "Contact Info."

<sup>149</sup> Aiello, *supra* note 43.