



**SEHSC**  
Silicones Environmental,  
Health, and Safety Center

January 17, 2017

Paul Mercer, Commissioner  
Maine Department of Environmental Protection  
State House Station 17  
Augusta, Maine 04333-0017

Sheryl Peavey, Chief Operating Officer  
Maine Center for Disease Control and Prevention  
Maine Department of Health and Human Services  
State House Station 11  
286 Water Street  
Augusta, Maine 04333-0011

Subject: Petition to Remove Silicone Substances D5, D6 and L3 from the Maine Kid's Safe Products Act Chemicals of Concern List

Dear Commissioner Mercer and Ms. Peavey:

Pursuant to 38 M.R.S. § 1693(3), the Silicones Environmental, Health, and Safety Center (SEHSC) of the American Chemistry Council ("ACC" or the "Council") submits this petition, on behalf of itself and its members, requesting that the Maine Department of Environmental Protection (MEDEP) remove silicone substances known as Decamethylcyclopentasiloxane (D5), Dodecamethylcyclohexasiloxane (D6), and Octamethyltrisiloxane (L3)<sup>1</sup> from the Maine "chemicals of concern" list as established by the Act to Protect Children's Health and the Environment from Toxic Chemicals in Toys and Children's Products, 38 M.R.S. §1691-1699-B ("Kid's Safe Products Act" or the "Act").

SEHSC believes that the current science and regulatory safety determinations by authoritative governmental entities clearly illustrate that D5, D6 and L3 do not meet the state's statutory criteria for listing. In fact, the authoritative government entity cited as the basis for listing (Canadian government) has specifically determined that the substances do not pose a danger to human health or the environment.<sup>2</sup>

In addition, data published in the peer-reviewed scientific field underscore the safety of the materials for human health and the environment. Because current science does not support a

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<sup>1</sup> Decamethylcyclopentasiloxane (D5), Dodecamethylcyclohexasiloxane (D6), and Octamethyltrisiloxane(L3) are identified by their Chemical Abstract Service (CAS) numbers, 541-02-6, 540-97-6, and 107-51-7 respectively.

<sup>2</sup> See Environment and Climate Change Canada, *Report of the Board of Review for Decamethylcyclopentasiloxane (Siloxane D5)*, pg. 13 of 83 (October 2011), available at <http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=515887B7-1>; Environment Canada & Health Canada, *Screening Assessment for the Challenge Dodecamethylcyclohexasiloxane (D6)*, pg. iii (November, 2008); Environment Canada & Health Canada, *Screening Assessment for the Challenge Trisiloxane, octamethyl- (MDM)*, pg. 5 (March 2015).

listing of these materials, SEHSC is submitting this petition to delist these substances to the MEDEP and the Maine Center for Disease Control and Prevention (MECDC), administrators of the Kid's Safe Products Act.

SEHSC has accumulated more than 50 years of scientific research and testing to assess the safety of silicone materials. This research and testing is continuously updated to ensure that the best scientific information is available on these chemicals. To date, the results of this testing repeatedly indicate that D5, D6 and L3 are safe for human health and the environment and therefore should not be included in the Maine "chemicals of concern" list.

Including D5, D6 and L3 on the CoC list does not help protect the health, safety and welfare of Maine citizens or further Maine's policy of reducing the exposure of children and other vulnerable populations to chemicals of high concern. For this reason and after careful review of the stated rationale for Maine's listing and all relevant data on D5, D6 and L3, SEHSC is convinced that it is necessary to remove these silicones from the "chemicals of concern" list. Two significant conclusions support the position that in 2009 MEDEP and MECDC did not base the listing of D5, D6 and L3 on "credible scientific evidence."

First, the agencies relied on a preliminary list for consideration by the Canadian Government to place these substances on the "chemicals of concern" list. Second, based on the current conclusions of the Canadian Government as well as currently available evidence, D5, D6, and L3 should not be considered for listing as "chemicals of concern" under 38 M.R.S. §1693(1).

I. MEDEP AND MECDC DID NOT BASE THE 2009 LISTING OF D5, D6 and L3 ON CREDIBLE SCIENTIFIC EVIDENCE BECAUSE IT IMPROPERLY RELIED ON A "PRELIMINARY" LIST, AND THEREFORE SHOULD REMOVE THE CHEMICALS FROM THE "CHEMICALS OF CONCERN" LIST.

A review of the law is helpful in putting the MEDEP's and MECDC's decision and this petition in perspective. In 2008, Maine enacted the Kid's Safe Products Act, which required MEDEP and MECDC to compile a list of "chemicals of concern." In 2009, MEDEP and MECDC completed work on this list, which included D5, D6 and L3. MEDEP and MECDC cited the "Canadian PBIT" list as its "origin list" for including D5, D6, and L3 as "chemicals of concern."

The Act requires that a chemical:

*[m]ay be included on the list only if it has been identified by an authoritative governmental entity on the basis of credible scientific evidence as being. . . (b) Persistent, bioaccumulative and toxic.<sup>3</sup>*

Specifically, the Act further states that:

*[c]redible scientific evidence means the results of a study, the experimental design and conduct of which have undergone independent scientific peer review, that are published in a peer-reviewed journal or publication of an authoritative federal or international governmental agency, including but not limited to: the United States Department of Health and Human Services, National Toxicology Program, Food and Drug*

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<sup>3</sup> 38 M.R.S. § 1693(1)(b)(2008). The Act also provides that a chemical may be listed on the "chemicals of concern list" if it is "c.) Very persistent and very bioaccumulative." *Id.* As noted elsewhere, the three chemicals that are subject to the petition clearly do not fall in that narrower, more restricted category, because they do not even qualify as persistent and bioaccumulative.

*Administration and Centers for Disease Control and Prevention; the United States Environmental Protection Agency; the World Health Organization; and the European Union, European Chemicals Agency.*<sup>4</sup>

In its Basis Statement for adopting the 2009 “chemicals of concern” list, the MEDEP stated that “the Legislature did not limit the [MEDEP’s] options to just those justified lists”<sup>5</sup> (that is, the lists of those particular agencies). Further, it stated that “additional source lists were consulted where deemed appropriate in the judgment of the Maine CDC toxicologist who advised the [MEDEP].”<sup>6</sup> However, in the case of these three chemicals, there was no citation to any list or information other than the Canadian PBiT list.

Specifically, in the “chemicals of concern” listing for D5, D6, and L3, MEDEP cites the “Canadian PBiT List” as the authoritative governmental entity having identified those substances as being “persistent, bioaccumulative and toxic (“PBT”).”<sup>7</sup> In its Basis Statement, MEDEP stated the following regarding its use of the “Canadian PBiT List”:

*[t]he Canadian Priority Substance List (PSL) is designed to identify chemicals that need to be evaluated under the Canadian Environmental Protection Act. PSL1 came out in 1989, and consists of 44 chemicals. PSL2 came out in 1995 and consists of 25 chemicals. The Canadian government anticipates that chemicals will continue to be added. Canada’s PBiT list was published in 2008 and is directly relevant to the criteria for inclusion on Maine’s [Chemicals of Concern List] as specified in 38 M.R.S. § 1693(1).*<sup>8</sup>

Based on our review of the information now available from Canada, as of July, 2009, the only Canadian PBiT list that we can determine was officially available was a preliminary categorization of chemicals for further review published in the Canada Gazette in May 2007.

The history of that categorization list is as follows. The list of chemicals that Canada compiled as part of its own chemical listing process was authorized by the Canadian Environmental Protection Act 1999 (“CEPA 1999”). As part of that process, the Canadian Government compiled a *preliminary* list of chemicals that it considered to be *possibly* “inherently toxic to humans or to the environment and that *might* be persistent and bioaccumulative (“PBiT”).”<sup>9</sup> In 2006, Canada began to move forward with conducting screening assessments for some of the chemicals identified on the preliminary list *in order to determine* whether “measures [would be needed] to control the use or release of a chemical substance,” *or whether in fact, “there is no risk to human health and the environment.”*<sup>10</sup> D5, D6 and L3 were included as substances set to undergo a screening assessment, as stated in a May, 2007 publication of the Canadian

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<sup>4</sup> 38 M.R.S § 1691(8-A)(2008).

<sup>5</sup> ME. DEPT. OF ENV. PROTECTION, BASIS STATEMENT 06-096 CMR CHAPTER 880 pg. 14 (October 26, 2011).

<sup>6</sup> *Id.*

<sup>7</sup> Maine Dept. of Env. Protection, Chemicals of Concern, MAINE.GOV, available at [http://www.maine.gov/dep/safechem/concern/documents/ChemicalsofConcern\\_July2015.pdf](http://www.maine.gov/dep/safechem/concern/documents/ChemicalsofConcern_July2015.pdf) (last visited May 17, 2016).

<sup>8</sup> See *supra* note 5.

<sup>9</sup> Environment Canada, *Canadian Environmental Protection Act, 1999 Screening Assessment Report*, 6 (April, 2008) available at [https://www.ec.gc.ca/lcpe-cepa/09F567A7-B1EE-1FEE-73DB-8AE6C1EB7658/final\\_145\\_PBiT-eng.pdf](https://www.ec.gc.ca/lcpe-cepa/09F567A7-B1EE-1FEE-73DB-8AE6C1EB7658/final_145_PBiT-eng.pdf).

<sup>10</sup> Government of Canada, *Chemical Substances*, CHEMICALSUBSTANCES.GC.CA, <http://www.chemicalsubstanceschimiques.gc.ca/approach-approche/categor-eng.php> (last visited May 26, 2016).

Gazette.<sup>11</sup> Then, in the screening assessment process (which follows the preliminary prioritization), Environment Canada and Health Canada (“EC” and “HC”) stated it would “consider . . . evidence that a substance is both Persistent and Bioaccumulative, when combined with evidence of toxicity” to then determine whether the substance meets the criteria to require further action.<sup>12</sup> In short, a substance would not be listed under the authoritative list as a hazardous substance under the law if it did not survive evaluation and was not determined to be persistent, bioaccumulative and toxic. In the case of D5, D6, and L3 Canada concluded they “will not pose a danger to the environment or its biological diversity in the future.”

In this case, MEDEP and MECDC did not have the advantage of the Canadian Government’s full consideration in compiling Maine’s list, but instead relied on a preliminary list of chemicals for further evaluation. This preliminary list was not “credible scientific evidence” as required by 38 M.R.S. § 1691, and therefore the preliminary list should not serve as a basis for listing D5, D6 and L3 as “chemicals of concern.”

For this reason alone, MEDEP and MECDC should remove the three chemicals from the “chemicals of concern” listing.

II. MEDEP AND MECDC SHOULD REMOVE D5, D6, AND L3 FROM THE CHEMICALS OF CONCERN LIST BECAUSE THEY DO NOT MEET THE STATUTORY LISTING REQUIREMENTS UNDER 38 M.R.S. § 1693(1).

A. *The Canadian Screening Assessments for D5, D6, and L3 included an evaluation of risk to human health and the environment for each compound, and each assessment was a public process involving peer review and consultation with independent experts.*

The Canadian Government conducted screening reviews of the three chemicals from 2009 to 2015. After conducting screening reviews on D5, D6, and L3, the Canadian Government found that none of the three substances posed a risk to human health, and that none of them met the criteria for being PBiT and that they did not pose a danger to the environment.<sup>13</sup> These final screening assessments were the product of collaboration between HC and EC, and incorporated input from other Canadian government programs.<sup>14</sup> Further, the assessments underwent external written peer review and consultation. In addition, D5 was reviewed by an independent board appointed by the Minister of the Environment.<sup>15</sup> These screening assessments therefore, not the preliminary lists composed to begin the screening assessment process, meet the definition of “credible scientific evidence” under 38 M.R.S. § 1691. MEDEP and MECDC should rely on the findings of these final screening assessments in concluding that D5, D6 and L3 do not meet the criteria of being PBiT, and remove D5, D6, and L3 from the

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<sup>11</sup> Canada Gazette, Vol. 141, No. 19, pg. 1209 (May 12, 2007), available at <http://publications.gc.ca/gazette/archives/p1/2007/2007-05-12/pdf/g1-14119.pdf>.

<sup>12</sup> Government of Canada, *Canadian Environmental Protection Act, 1999 Environment Canada and Health Canada Final Screening Assessment*, EC.GC.CA, 6, <http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=EE479482-1&wsdoc=1488280E-96A6-6994-1B09-5F98BF3F9014> (last visited May 26, 2016).

<sup>13</sup> See Environment and Climate Change Canada, *Report of the Board of Review for Decamethylcyclopentasiloxane (Siloxane D5)*, pg. 13 of 83 (October 2011), available at <http://www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=515887B7-1>; Environment Canada & Health Canada, *Screening Assessment for the Challenge Dodecamethylcyclohexasiloxane (D6)*, pg. iii (November, 2008); Environment Canada & Health Canada, *Screening Assessment for the Challenge Trisiloxane, octamethyl- (MDM)*, pg. 5 (March 2015).

<sup>14</sup> Environment Canada & Health Canada, *Screening Assessment for the Challenge Trisiloxane, octamethyl- (MDM)*, pg. 7 (March 2015).

<sup>15</sup> *Id.*

“chemicals of concern” list. The result of the screening process for each chemical is summarized below.

*B. D5 does not meet the criteria of being PBT under 38 M.R.S. § 1693(1)(b) because it is not toxic and is not bioaccumulative, even though it may be persistent.*

Canada’s screening assessment for D5 focused on possible effects of D5 to the environment. For human health, the final D5 screening assessment concluded that based on the available information on its potential to cause harm to human health, D5 is not entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health (Health and Environment Canada, 2008). The final screening assessment also reviewed all the available evidence on D5 to determine whether it met the criteria of being PBT.

For the Canadian environmental assessment, the final screening assessment did conclude that D5 met the “threshold criteria for persistence [pursuant to the Canadian regulations on persistence and bioaccumulation].”<sup>16</sup> As discussed above, however, in order for a substance to meet the Canadian criteria of being PBT, “persistence must be accompanied by accumulation” and toxicity.<sup>17</sup> As noted above, the same is true for a chemical of concern listing under Maine’s Kid’s Safe Products Act.

Second, with regard to bioaccumulation, the Canadian Government found “that Siloxane D5 will not accumulate to sufficiently great concentrations to cause adverse effects in organisms in air, water, soils, or sediments,”<sup>18</sup> and that “there is no evidence to demonstrate that Siloxane D5 is toxic to any organism tested up to the limit of solubility in any environmental matrix.”<sup>19</sup> Further, the Canadian Government concluded that “Siloxane D5 did not exceed the thresholds established [for persistence and bioaccumulation as established by CEPA 1999’s regulations].”<sup>20</sup>

Finally, with regard to toxicity, the Canadian Government concluded that “taking into account the intrinsic properties of Siloxane D5 and all of the available scientific information. . . Siloxane D5 does not pose a danger to the environment.”<sup>21</sup> The Government of Canada’s final assessment on D5 concluded that it was not PBT.

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<sup>16</sup> See Environment and Climate Change Canada, *Report of the Board of Review for Decamethylcyclopentasiloxane (Siloxane D5)*, pg. 43 of 83 (October 2011).

<sup>17</sup> Environment and Climate Change Canada, *Report of the Board of Review for Decamethylcyclopentasiloxane (Siloxane D5)*, pg. 43 of 83 (October 2011).

<sup>18</sup> *Id.* at pg. 9.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.* The Maine Kids Safe Products Act also allows for a chemical to be listed on the “chemicals of concern” list if it is “very persistent and very bioaccumulative.” 38 M.R.S. § 1693(1)(c). The final screening assessment found that D5 had the capacity to be persistent in air, water, and sediment, but did not exceed the threshold for soil. However, the final screening assessment also concluded that D5 did not exceed the thresholds established merely for bioaccumulation, meaning that it cannot be “very bioaccumulative.” Environment and Climate Change Canada, *Report of the Board of Review for Decamethylcyclopentasiloxane (Siloxane D5)*, pg. 43 of 83 (October 2011). Evidence from the D5 final screening assessment shows that D5 does not meet the criteria of being “very persistent and very bioaccumulative.” 38 M.R.S. § 1693(1)(c).

<sup>21</sup> Environment and Climate Change Canada, *Report of the Board of Review for Decamethylcyclopentasiloxane (Siloxane D5)*, pg. 9 of 83 (October 2011).

In addition, as part of its Inventory Multi-Tiered Assessment and Prioritisation (IMAP) program, the Australian Government released a preliminary human health assessment of D5 in July of 2016. The assessment noted there are no critical health effects for the chemical, and concluded that given the low bioavailability and low toxicity of the chemical, significant public risk is not expected, and that public risk from use of the chemical is not considered to be unreasonable (Government of Australia, 2016).

Based on this evidence, D5 does not meet the criteria of being “persistent, bioaccumulative and toxic” under the Kid’s Safe Products Act 38 M.R.S. § 1693(1)(b) and should be removed from the COC list.

*C. D6 does not meet the criteria of being PBT under 38 M.R.S. § 1693(1) because it is not toxic or bioaccumulative, even though it may be persistent in some media.*

Canada’s screening assessment for D6 focused on possible effects of D6 to human health and the environment. For human health, the final D6 screening assessment concluded that based on the available information on its potential to cause harm to human health, it is concluded that D6 is not entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health (Health and Environment Canada, 2008).

To assess the environmental risk associated with D6, the final screening assessment reviewed all the available evidence on D6 to determine whether it met the criteria of being PBiT. First, with regard to persistence, the final screening assessment did find that D6 had the potential to be persistent in air and under typical Canadian water conditions.<sup>22</sup> As discussed above however, in order for a substance to meet the Canadian criteria of being PBiT, “persistence must be accompanied by accumulation” and toxicity.

Second, with regard to bioaccumulation, the final screening assessment found that “it is concluded based on empirical bioconcentration factor data and read-across evidence that D6 does not meet the bioaccumulation criterion set out in [the Canadian regulations on persistence and bioaccumulation].”<sup>23</sup>

Finally, with regard to toxicity, the final screening assessment stated that “no toxic threshold for adverse effect is expected for D6 at its water solubility limit,” and that “given the low bioavailability and low potential for effects, it is concluded that D6 has low potential to cause

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<sup>22</sup> Environment Canada & Health Canada, *Screening Assessment for the Challenge Dodecamethylcyclohexasiloxane (D6)*, pg. ii (November, 2008).

<sup>23</sup> Environment Canada & Health Canada, *Screening Assessment for the Challenge Dodecamethylcyclohexasiloxane (D6)*, pg. iii (November, 2008). The Maine Kid’s Safe Products Act also allows for a chemical to be listed on the “chemicals of concern” list if it is “very persistent and very bioaccumulative.” 38 M.R.S. § 1693(1)(c). The final screening assessment found that D6 had the capacity to be persistent in air, water and sediment, but that it was not considered persistent in soil. Environment Canada & Health Canada, *Screening Assessment for the Challenge Dodecamethylcyclohexasiloxane (D6)*, pg. ii (November, 2008). However, the final screening assessment also concluded that D6 did not exceed the thresholds established merely for bioaccumulation, meaning that it cannot be “very bioaccumulative.” *Id* at iii. Evidence from the D6 final screening assessment shows that D5 does not meet the criteria of being “very persistent and very bioaccumulative.” 38 M.R.S. §1693(1)(c).

ecological harm.”<sup>24</sup> The Government of Canada’s final assessment on D6 concluded that it was not PBiT.

In addition, as part of its Inventory Multi-Tiered Assessment and Prioritisation (IMAP) program, the Australian Government released a preliminary human health assessment of D6 in July of 2016. The assessment noted there are no critical health effects for the chemical, and concluded that given the low bioavailability and low toxicity of the chemical, significant public risk is not expected, and that public risk from use of the chemical is not considered to be reasonable (Government of Australia, 2016).

Based on this evidence, D6 does not meet the criteria of being “persistent, bioaccumulative and toxic” under the Kid’s Safe Products Act 38 M.R.S. §1693(1)(b) and should be removed from the COC list.

*D. Similarly, L3 does not meet the criteria of being PBT under 38 M.R.S. § 1693(1)(b) for the same reasons -- it is not toxic or bioaccumulative, even though it may be persistent in some media.*

Canada’s screening assessment for L3 focused on possible effects of L3 to human health and the environment. The human health assessment concluded that L3 does not meet the criteria under paragraph 64(c) of CEPA 1999 as it is not entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health (Health and Environment, 2015). For the L3 environmental assessment, the final screening assessment reviewed all the available evidence on L3 to determine whether it met the criteria of being PBiT.

First, with regard to persistence, the final screening assessment found that while L3 may have the potential to be persistent in sediment, it is not persistent in air or water.<sup>25</sup> As discussed above however, in order for a substance to meet the Canadian criteria of being PBiT, “persistence must be accompanied by accumulation” and toxicity.

Second, with regard to bioaccumulation, the final screening assessment found that L3 “is not likely to biomagnify in foodwebs,” the primary criteria for determining whether a substance will be hazardous through bioaccumulation to the environment.<sup>26</sup>

Finally, with regard to toxicity, the final screening assessment found that, “[L3] has demonstrated low [toxic] potential in aquatic species, with no adverse effects observed following prolonged exposures at concentrations up to the limit of water solubility,” and that “no

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<sup>24</sup> Environment Canada & Health Canada, *Screening Assessment for the Challenge Dodecamethylcyclohexasiloxane (D6)*, pg. iii (November, 2008).

<sup>25</sup> Environment Canada & Health Canada, *Screening Assessment for the Challenge Trisiloxane, octamethyl- (MDM)*, pg. 26 (March 2015). The Maine Kid’s Safe Products Act also allows for a chemical to be listed on the “chemicals of concern” list if it is “very persistent and and very bioaccumulative.” 38 M.R.S. § 1693(1)(c). The final screening assessment found that L3 was not likely to persist in water, soil, or air, but that it may have the capacity to persist in sediment. Environment Canada & Health Canada, *Screening Assessment for the Challenge Trisiloxane, octamethyl- (MDM)*, pg. 26 (March 2015). However, the final screening assessment also concluded that L3 did not exceed the thresholds for being merely bioaccumulative, meaning that it cannot be “very bioaccumulative.” *Id* at 35. Evidence from the L3 final screening assessment shows that L3 does not meet the criteria of being “very persistent and very bioaccumulative.” 38 M.R.S. §1693(1)(c).

<sup>26</sup> Environment Canada & Health Canada, *Screening Assessment for the Challenge Trisiloxane, octamethyl- (MDM)*, pg. 35 (March 2015).

information was found on the potential for effects in terrestrial species,” but that “[L3] is not likely to be hazardous to terrestrial invertebrates or plants.”<sup>27</sup> The Government of Canada’s final assessment on L3 indicated that low exposure and hazard potential indicate that there is low risk of harm to organisms or to the broader integrity of the environment from L3 (Health and Environment Canada, 2015). The conclusion was that L3 does not meet the criteria under paragraphs 64(a) or (b) of CEPA 1999 as it is not entering the environment in a quantity or concentration or under conditions that have or may have immediate or long-term harmful effects on the environment or its biological diversity, or that constitute or may constitute a danger to the environment on which life depends.

Based on this evidence, L3 does not meet the criteria of being “persistent, bioaccumulative and toxic” under the Kid’s Safe Products Act 38 M.R.S. §1693(1)(b) and should be removed from the COC list.

### *E. Conclusion*

The Kid’s Safe Products Act, 38 M.R.S. § 1693-A(3), authorizes the MEDEP and MECDC to grant a petition requesting the removal of chemicals from the “chemicals of concern list” if the chemicals “[do] not meet the criteria for listing pursuant to [1693(1)].”<sup>28</sup> In this case, D5, D6, and L3 should be removed from the list because the credible scientific research undertaken by the Canadian government as part of its screening assessment on these substances revealed that while D6 and L3 may be persistent in certain media, D5, D6, or L3 are not bioaccumulative or toxic.

Maintaining these chemicals on the COC would not provide any measurable benefits to human health or the environment, and could create the false impression that the materials are unsafe which could result in marketplace deselection and loss of innovation in Maine. D5, D6 and L3 are used in a variety of consumer and industrial products and provide essential benefits to key economic sectors in Maine, including automotive, health care, aerospace, personal care, electronics, and construction. For example, silicone rubber, elastomers, sealants, lubricants and plastic additives are used extensively in automotive components. Similarly, in construction silicones are critical to the production of sealants, protective coatings for exterior surfaces and in production of building insulation. Silicones are also used in light emitting diodes (LEDs) and in semiconductors as encapsulates. In addition, in aviation silicones act as adhesives and sealants for doors and windows which need to be properly sealed to preserve cabin pressure.

In the personal care sector silicones are used as solvents and carriers for a number of personal care products including deoderants, hair, skin and sun care products, and make-up products. In health care, silicones reduce patient risk, enable life enhancing medical devices and contribute towards various innovations, such as pacemakers’ cochlear implants and wearable sensors. In addition, they are resistant to bacteria and hence are easily sterilized, enhancing the safety of patients.<sup>29</sup>

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<sup>27</sup> *Id* at pg. 4.

<sup>28</sup> 38 M.R.S. § 1693-A(3)(B). “A person may petition the department to remove a chemical from the [“chemicals of concern” list . . . the [MEDEP and MECDC] may grant a petition if the person demonstrates to the satisfaction of the [MEDEP] that the chemical[s]. . . [do] not meet the criteria for listing pursuant to subsection 1.” *Id*.

<sup>29</sup> <https://sehsc.americanchemistry.com/Socio-Economic-Evaluation-of-the-Global-Silicones-Industry-The-Americas.pdf>

Moreover, the over 20 sealant suppliers throughout Maine rely on silicone monomers to manufacture silicone compounds used by businesses throughout the state.<sup>30</sup>

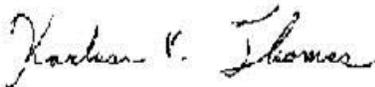
These substances are also crucial for the development of many modern technologies that enhance energy efficiency, improve safety and provide other essential societal benefits. Moreover, because governmental authorities and legislative/regulatory bodies often enact laws and promulgate regulations that incorporate by reference the lists of other authorities, being inappropriately included on even one list can have exponential consequences.

### III. THE STATE SHOULD CORRECT THIS ERROR BY ACTION WITHIN 180 DAYS.

Because they do not meet the statutory criteria for listing, and because they qualify for removal from the listing, with this letter, the Council petitions for the removal of D5, D6, and L3 from the list of “chemicals of concern” under 38 M.R.S. § 1693(3). SEHSC understands that as required by statute, MEDEP will make a determination within 180 days and, if our petition is granted, D5, D6 and L3 will be immediately removed from the Maine Kid’s Safe Products Act Chemicals of Concern List.

Commissioner Mercer and Ms. Peavey, SEHSC appreciates your review and a timely decision on this petition. If you have any questions, we would be pleased to address them. Thank you for your consideration of this petition.

Sincerely,



Karluss Thomas  
SEHSC Senior Director

ACC is a national trade association representing companies engaged in the business of chemistry. The Council’s mission is to advocate on behalf of its members to foster innovation in manufacturing, high-tech jobs, and to enhance safety through the products of chemistry and investment in research. The Council is committed to sustainable development by fostering progress in our economy, environment and society.

SEHSC represents the manufacturers of silicone materials and promotes the safe use of silicones through product stewardship, outreach and environmental, health and safety research. This research must rely on a risk-based and weight of evidence methodology to accurately determine classifications of silicone materials.

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<sup>30</sup> <http://www.thomasnet.com/maine/sealants-73231607-1.html>