

July 13, 2022

The Honorable Steven Guilbeault, Minister of the Environment
c/o Christina Paradiso
Executive Director Chemicals Management, Environmental Protection Branch
Department of the Environment
351 Saint-Joseph Boulevard, Gatineau, Quebec K1A 0H3
Email: ec.interdiction-prohibition.ec@ec.gc.ca

Re: Notice of Objection and Request for Board of Review in relation to proposed regulations* prohibiting the manufacture, use, sale and import of decabromodiphenyl ethane (DBDPE, CAS Registry No. 84852-53-9)

**Canada Gazette, Part I, Volume 156, Number 20 – May 14, 2022: Prohibition of Certain Toxic Substances Regulations, 2022*

Dear Minister Guilbeault:

Global Automakers of Canada (GAC) is the national trade association representing the Canadian interests of 15 of the world's most respected automakers. Our members include BMW Canada Inc, Honda Canada Inc., Hyundai Auto Canada Corp., Jaguar Land Rover Canada ULC, Kia Canada Inc., Maserati Canada Inc., Mazda Canada Inc., Mercedes-Benz Canada Inc., Mitsubishi Motor Sales of Canada, Inc., Nissan Canada Inc., Porsche Cars Canada Ltd., Subaru Canada, Inc., Toyota Canada Inc., Volkswagen Group Canada Inc., and Volvo Car Canada Ltd. Together our members represent more than 25 brands, which in 2021 sold almost 1,016,000 vehicles representing 62% of the Canadian automotive market. In addition, 65% of the vehicles built in Canada were produced by GAC members Honda Canada (Alliston, ON) and Toyota Canada (Cambridge and Woodstock, ON), with fully 58% of the vehicles sold by member companies in Canada having been built in the NAFTA region, demonstrating a commitment to "building where they sell".

Global Automakers of Canada is taking the extraordinary step of submitting this Notice of Objection to the regulatory proposal published in the Canada Gazette on May 14th, 2022, which includes, amongst the proposed amendments to the Prohibition of Certain Toxic Substances Regulations, very targeted measures against the manufacture, use, sale and import of DBDPE.

The proposed risk management measures as set out in the proposed Prohibition of Certain Toxic Substances Regulations, 2022 (the "draft Regulation") for DBDPE are not replicated elsewhere in the world, and far exceed anything thus far proposed in terms of banning of the substance from manufacture and commerce. The automotive industry has made a consistent effort over the past three or more years to make it known to the department the critical importance of this substance to industry; DBDPE is a vital and broadly used additive to many materials in use in automobiles and automotive parts and provide protection from fire to drivers and occupants in hundreds of millions of vehicles worldwide.

The proposed restrictions on the other named substances notwithstanding, the measures concerning DBDPE are wholly incompatible with the current state of global usage which is very broad. Our primary concerns, which underpin our filing this Notice of Objection (as provided for by section 332(2) of CEPA 1999) and request for formation of a Board of Review to inquire into the risks posed by DBDPE and the appropriateness of the respective proposed amendments to the PCTSRs (pursuant to section 333 of CEPA 1999) are outlined below (with detail to follow):

- Potential for severe negative impact to public safety as a result of lack of available substitutes

- Insufficient timelines to develop, qualify and implement potential substitutes in volume to address a broad scope of applications
- Proposed permitting process is not adequate to address lack of viable alternatives to DBDPE
- Trade and supply-chain disruption arising from global non-alignment caused by decision to pursue independent Risk Management measures

Potential for severe negative impact to public safety as a result of lack of available substitutes

DBDPE performs a valuable function by reducing the flammability of the products where it is used. Automobiles and automotive parts that contain this substance do so because, in the absence of the chemical, there is an increased risk of fire that could result in injury or death to vehicle occupants and/or other road users which may be involved in an incident.

Automobiles are manufactured in accordance with application-specific performance standards, including flammability of interior materials (Canadian Motor Vehicle Safety Standard 302 – Flammability of Interior Materials) and an array of standards governing electrical componentry, of which there is an ever-increasing quantity in vehicles. As vehicles evolve further into platforms for lifestyle mobility, electrically driven, the mass of electronics and wiring will likely continue to grow and, with it, the need for effective flame retardants. A sensible transition plan that preserves the safety of vehicle owners and occupants while substitutes are adequately researched and tested is necessary.

In consideration of the measures being proposed for DBDPE, it is important to take note of the risk management measures already introduced for chemicals that have performed similar functions in the past and likewise been phased out, though largely in alignment with global agreements and regulations. Two such examples, HBCD and the PBDE known as decaBDE have been subject to restrictions in manufacture, use, and commerce over the past decade, and the phase-out of these substances has forced manufacturers to rely increasingly on chlorinated and brominated flame retardants such as DP and DBDPE, respectively. With DP being removed from commerce, the stable of known flame retardants which are available to manufacturers and qualified for use in various applications is growing increasingly small and the process to find alternatives becoming increasingly challenging. Those alternatives that may be able to fill the gap in some applications are likely to require a much higher loading factor and this will result in increased material weight as well as – potentially - negatively impacting other material properties.

Last, a particular concern with the regulatory proposal concerns the statement in the Regulatory Impact Analysis Statement that “there is the potential for bioaccumulation of DP and of DBDPE’s transformation products (i.e., lower brominated diphenyl ethanes) in wildlife, such as whales and seals”. The determination to use decaBDE as a structural analogue for DBDPE does not – according to our chemical partners – appear to have broad support in empirical research. Establishing this “potential” as fact appears, to us, to have been overlooked as an important step preceding the implementation of a ban with fire safety implications for vehicle occupants.

Insufficient timelines to develop, qualify and implement potential substitutes in volume to address a broad scope of applications

Each manufacturer has thousands of parts affected by the proposed regulations, with applications including, but not limited to wiring, tape adhesives, seat foams, and lacquer on labels and cables. There are, at present, no other alternatives to DBDPE that offer the same level of flame retardancy, at the given substance loading, while possessing comparable electrical resistance, physical properties, and processing advantages. Additionally, alternatives always carry their own set of performance limitations and risks, and it is the balance

of risks that must be well-understood and carefully managed when there are other competing safety priorities such as with respect to fire safety.

In the Regulatory Impact Analysis Statement, ECCC suggests that its consultations with industry stakeholders have led to the proposed permits and exemptions that would address the lack of available alternatives to DBDPE. However, as our members and their supply chain partners would be the source of such information, and as no comprehensive picture has yet been developed concerning the consequential costs of the proposed risk management measures to our industry (owing, in large part to the enormous complexity of obtaining such information across the global supply chain where DBDPE use is not actively monitored), we have concerns as to the accuracy of this statement.

The timelines for qualifying substitute candidates on a part-by-part basis for integration into production plans of new models and, critically, existing models, is much longer than the 5-year exemption window being proposed for new vehicles (less than the development cycle for a single model). Even if a compound were identified as a candidate substitute for each of the tens of thousands of related parts, it would not only have to pass the flammability resistance test but also be qualified more broadly for the application. Vehicle parts must be developed and tested to meet engineering specifications, and then the systems developed and tested to ensure that they meet not only the company's engineering spec, but also satisfy certification requirements (i.e., crash testing performance) of various global regulatory regimes. Once approved, the new substance must be integrated into the production pipeline, which becomes even more complex for product lines already established and takes engineering resources away from the development of newer, safer vehicles. Figure 1 in the Appendix to this letter illustrates the scope of consideration for evaluating new chemicals.

In the past, our guidance to government on chemical substance phase out has been 10 years for new products; however, with no existing regulatory action against DBDPE elsewhere in the world, 15 years is required to substitute DBDPE in new vehicle production to ensure adequate time to research and implement a substitute with minimal supply chain disruption. For a graphical illustration of the automotive timeline for chemicals substitution, please refer to Figure 2 in the Appendix to this letter.

Proposed permitting process not adequate to address lack of viable alternatives to DBDPE

The proposed permitting process is not workable for the automotive industry; the requirement for obtaining a permit is very burdensome from an administrative standpoint when considering the exceedingly high number of specific parts that would need to be independently tested and permitted under such a system. It is very difficult to peg the combined administrative, testing and development, and per/vehicle costs for qualifying and integrating a suitable alternative to DBDPE, but it is likely to have an impact in the billions of dollars when measured across the entire sector, it's OEMs and supplier base.

Additionally, ECCC has indicated through the public consultation process that the permitting mechanism is not applicable for uses which have been granted an extension within the proposed rule. Automotive OEMs would therefore not be able to avail themselves of this mechanism for the purpose of additional development time.

Trade and supply-chain disruption arising from global non-alignment caused by decision to pursue independent Risk Management measures

Automobile manufacturers operate in a global regulatory environment and the scope of use of DBDPE in the industry is such that it cannot be substituted across the length and breadth of the global supply chain without a substantial lead time for new parts and new vehicles, as well as replacement parts. These components are not only entering Canada in volume but being produced here as well and exported either for final assembly or as part of another finishing process that could see the part returned to Canada again. A short lead ban on DBDPE means OEMs may be faced with a decision to stockpile parts rather than produce them in accordance

with real-time production estimates for the production lifecycle of affected models; this is itself not beneficial to the environment. A poorly timed phaseout would also likely result in Canada-unique specifications for vehicle assembly (impacting vehicle availability and costs to the Canadian consumer) and disrupt movement of parts that often cross the border multiple times for successive operations.

In North America, the philosophy of Canada-US alignment on vehicle emissions and safety standards is a cornerstone of the industry's viability. The Canada-US-Mexico Agreement obliges parties to the agreement to not introduce unnecessary barriers to trade, but to make efforts to align risk-assessment methodologies and risk management measures for chemical substances. We therefore are very concerned with the department's willingness to expose the Canadian industry to such an enormous commercial risk by moving independently to restrict DBDPE. At present, the United States Environmental Protection Agency (U.S. EPA) is not proposing either Risk Assessment or Risk Management of DBDPE; on the global front, the Stockholm Convention on Persistent Organic Pollutants is similarly absent of DBDPE with respect to the chemicals listed in its Annexes. A global approach to chemicals management is critical to the automotive industry, as it is with other industries that operate in a global regulatory environment that governs design, production, certification, in-use testing, distribution, end of life and other product safety considerations. We therefore urge the government to make its arguments for DBDPE's removal from commerce to international forums for establishing such global agreements, such as the Stockholm Convention.

To summarize, our members are greatly concerned with the proposed regulatory Risk Management measures for DBDPE. It is not sufficient to simply "hope" that industry will come up with a viable alternative to DBDPE, while putting an effective end to its use over a very short timeline in the context of vehicle development cycles. Automobiles are highly complex manufactured items under CEPA 1999 and, as the industry has made clear on many previous occasions, there is a responsibility on the part of the government to ensure that viable alternatives exist for industry to use that will allow them to fulfill their other regulatory obligations.

Given the current lack of available alternatives for DBDPE and unknown costs of compliance with the regulatory proposal, we urge the department to revise its risk management approach in regulating DBDPE to, first, engage other jurisdictions in global-focused chemicals management approach and, secondly, ensure the industry has adequate time to work with its supply chain partners to properly develop and implement workable alternatives.

We thank you for your consideration of the arguments set out above, and request that the Minister appoint a Board of Review to inquire into the risks posed by DBDPE and the appropriateness of the respective proposed amendments to the PCTSRs.

Sincerely,

A handwritten signature in blue ink, appearing to read 'G. Overwater', with a stylized flourish at the end.

Greg Overwater, P.Eng
Senior Director – Safety, Innovation and Regulation

Appendix

Figure 1. Summary of typical minimum design and production considerations when qualifying a new chemical substance to substitute in an existing chemical in an automotive application.

	Performance					Cost	Mass
Type	Vehicle			Ease to Manufacture	Ease of Service	\$\$\$	kg / lb
Sub-type	Regulatory Standard	Internal or Industry Standard	Subjective / Appeal				
Examples	Fuel Economy; CMVSS crash, headlamp performance, etc	Cyclic durability, IIHS crash star ratings, etc	Styling, haptics, handling, etc	"takt time", installation flow, installation forces (kgf), etc	Ease for replacement of parts after customer crashes vehicle, etc	Impact vehicle or operations cost?	Impact vehicle mass?

Depending on vehicle sales destination, tens of thousands ~ Hundreds of thousands of regulatory checks must be made, commonly resulting in retesting

Thousands of internal Standards

engineering change administrative costs; re-testing costs; re-tooling costs, etc

Increased mass impacts performance (ex: fuel economy, braking distance, etc)

Figure 2. Illustration of comparative timelines for phaseout of flame retardants in broad use in the Automotive Industry.

Chemical Regulation Impact on Auto Industry

