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Transmitted Electronically via CalSAFER at: <https://calsafes.dtsc.ca.gov/>

Barbara A. Lee  
Director  
Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, California 95812-0806

Dear Ms. Lee:

**Re: Listing Spray Polyurethane Foam Systems with Unreacted Methylene Diphenyl Diisocyanates as a Priority Product (R-2016-04)**

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This letter is submitted in response to your Department's decision to list Spray Polyurethane Foam (SPF) containing unreacted Methylene Diphenyl Di-isocyanate as a Priority Product under the Safer Consumer Products regulation.

We believe DTSC erred in making this selection. In reviewing the Department's initial statement of reasons for the listing, DTSC quotes the regulation as saying that "there must be the potential for one or more exposures to contribute to or cause significant or widespread adverse impacts." Even the third-party reviewers that DTSC retained to review its justification for the listing take issue with the conclusion that the potential is "significant and widespread". For example, in his review of the documents (see Attachment 5 in DTSC's Technical Report), Dr. B. Nemery, MD, PhD, took issue with the characterization of the potential as being "significant" and "widespread".

The regulation requires that DTSC consider engineering controls and industry stewardship practices in its assessment of risks. While it is possible to imagine hypothetical scenarios in which individuals could be sensitized, it is important to consider the effectiveness of controls that prevent this from happening. A significant and widespread potential health effect simply isn't borne out by the facts:

- In the 15 years between 1993 and 2008, the California Department of Public Health (CDPH) estimated that isocyanate exposure was responsible for approximately 0.5% of work-related asthma cases reported in the state\*—that's all isocyanates in all work places. The family of isocyanate chemicals includes HDI and TDI, as well as MDI, and Isocyanates are used in a wide variety of industrial applications/settings ranging

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from upholstery, automotive and truck applications, bed liners to refrigerators and freezers, and a range of applications in paints, glues and coatings. MDI in spray foam represents a small fraction of this small number. DTSC can only consider the cases of work related asthma associated with unreacted MDI in SPF systems. Since 1993 CDPH reported just 8 cases associated with MDI, and again this is all MDI uses in all work places. We further understand that there were zero reported cases for the most recent 8 years (2006-2014). Given the low number of cases along with the wide number of MDI uses outside of the SPF market, it is difficult to understand how DTSC determined the use of SPF systems presents a “significant or widespread adverse impact” in California without CDP linking any of the MDI asthma cases to SPF systems.

- Now consider the workplace asthma associated with other insulation materials. CDPH reports that during the same 15-year period (1993-2008), fiberglass was associated with approximately 76 cases of occupational asthma\*. Fiberglass is used in many products. However, in its raw form it was the most popular insulation choice for insulating buildings over the period. A large fraction of these asthma cases is likely associated with insulating buildings.
- Spray Polyurethane foam currently represents the insulation used in 5-10% of all new homes across the US. In several major US metropolitan areas, SPF has been the dominant new home insulation material for several years. At this rate of market use (or even at a much lower rate) “significant or widespread adverse impacts” should have been visible in the available data. This simply was not found.\*

There are other noteworthy observations one can make in the CDPH data. If one also considers the connection between poor air sealing and concealed condensation / mold growth in walls and attics, one can also find other types of workplace asthma that Spray Polyurethane Foam actually helps prevent. Mold was associated with 321 cases of workplace asthma in California in 15 years\*. It is not inconceivable that, because it air seals to help avoid concealed condensation problems, wider use of SPF would have had a positive benefit in terms of lowering mold-related adverse health effects. Considering the few cases of occupational asthma attributed to MDI in SPF, the positive impacts in terms of decreasing mold exposure more than compensates for this risk. This suggests that spray foam actually has a positive health benefit.

The federal Occupational Safety and Health Administration (OSHA) recently discontinued its National Emphasis Program (NEP) on Isocyanates. Like DTSC, it had been lobbied by various parties concerned that the increasing use of Spray Foam constituted a health risk. After three years of the program being in effect (2013-2016), OSHA did not find the overexposures they expected attributable to isocyanates in a wide variety of workplaces worthy of continuing the NEP. We urge DTSC to work with OSHA to determine what it has learned over the last 4 years.

Icynene has been a leader in spray foam technology for the last 30 years. We estimate that our products have been used in more than 600,000 buildings. We have never had a reported case of occupational asthma in California over that period.

As an industry leader, we have embraced:

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- ACC-CPI best practices for product stewardship and worker protection
- Distribution of our products only to our network of trained and licensed professionals
- Pioneering research and development of ultra-low VOC products based on non-emissive catalysts
- Contractor training on proper PPE and stewardship practices to exclude unprotected workers and the general public from work areas during spray and for a specified period thereafter (exclusion period varies based on product type and risk profile.)
- Packaging and literature that makes clear explicit warnings of how to avoid exposure to hazards associated with our products.

Icynene is owned by FFL Partners, a California-based private equity firm. It is truly frustrating that DTSC has had access to full co-operation from our industry and continues to behave as though we do not have a shared interest in the health and well-being of Californians.

California has aggressive targets for energy conservation and climate change. Like many jurisdictions, it faces problems with the increasing lack of affordability of new homes. SPF is increasing in popularity because it delivers high performance, it improves the quality of construction and because it is cost-effective. It is difficult to conceive how California could meet its aggressive targets for energy conservation and climate change without a substantial contribution from our industry.

In considering the impacts of DTSC's decision to list SPF containing unreacted MDI, we would also like to point out that we have no evidence that unreacted MDI exists in our products beyond the first few minutes after spray and outside the immediate area covered by our sprayer guidance on excluding unprotected individuals. This is clearly an occupational health and safety issue and we believe that public safety is well served by our stewardship practices and by applicator compliance with federal and state worker protection regulations. Rather than undertaking a separate, duplicative regulatory effort on its own, DTSC should be working with CalOSHA to ensure its concerns are being properly addressed.

This regulatory action by DTSC raises many other serious concerns so we have worked through the American Chemistry Council-Center for the Polyurethanes Industry (ACC-CPI) to develop a collated set of facts and arguments in the hope that reason will prevail. We support the ACC-CPI submission (attached hereto) and the fulsome response that it provides.

We remain open to assisting DTSC in gathering information pertaining to our products. Given that the data on occupational asthma does not justify a prioritization decision, we oppose DTSC's efforts to list SPF containing unreacted MDI as a Priority Product. We urge your office to reconsider proceeding with this action.

Yours truly,



Howard C. Deck  
President and CEO