

February 17, 2021

***Via Email***

Michal I. Freedhoff, Ph.D.  
Acting Assistant Administrator  
Office of Chemical Safety and Pollution Prevention

Yvette Collazo Reyes, Director  
Office of Pollution Prevention and Toxics  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. NW  
Washington, DC 20004-0001

Re: Request to Extend Compliance Dates for TSCA § 6 Rule for Phenol  
Isopropylated Phosphate (3:1) (PIP 3:1)

Dear Dr. Freedhoff and Ms. Collazo Reyes:

On behalf of the Semiconductor Industry Association (SIA),<sup>1</sup> I am writing to urgently request a delay of no less than 3 years in implementation of the final rule on “Phenol, Isopropylated Phosphate (3:1) (PIP 3:1); Regulation of Persistent, Bioaccumulative, and Toxic Chemicals Under TSCA Section 6(h).” 86 Fed. Reg. 894 (Jan. 6, 2021) as applied to semiconductor manufacturing equipment, plus additional time to replace this chemical in replacement parts.

The final rule imposes restrictions on the distribution of PIP 3:1, including articles containing this chemical, effective March 8, 2021. To our knowledge, the semiconductor manufacturing process itself does not use PIP 3:1. However, the complex and highly sophisticated process of fabricating semiconductors requires the use of advanced machinery consisting of hundreds or thousands of individual electrical components and articles from a global supply base, and the industry’s equipment suppliers have informed us that some of these components are believed to contain PIP 3:1 in wiring and tubing. Our equipment suppliers have further advised us they will require more time to conduct due diligence into identifying where this chemical may be present in the equipment and to identify and qualify potential substitutes. Certain suppliers have reported they may need to cease supplying manufacturing equipment and component parts effective March 8 of this year if an extension is not granted.

Faced with an unforeseen situation which could cause considerable disruptions in U.S. operations of the semiconductor manufacturing sector, we request a delay of no less than 3-years in application of the new rule to semiconductor manufacturing equipment. We further request EPA exercise enforcement discretion as it implements this delay.

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<sup>1</sup> SIA is the trade association representing leading U.S. companies engaged in the research, design, and manufacture of semiconductors. Semiconductors are the fundamental enabling technology of modern electronics that has transformed virtually all aspects of our economy, ranging from information technology, telecommunications, health care, transportation, energy, and national defense. The U.S. is the global leader in the semiconductor industry, and continued U.S. leadership in semiconductor technology is essential to America’s continued global economic leadership. More information about SIA and the semiconductor industry is available at [www.semiconductors.org](http://www.semiconductors.org).

Semiconductor manufacturing – which is conducted in 18 states throughout the U.S. and produces America’s 5<sup>th</sup> largest export – occurs in highly advanced fabrication facilities (“fabs”) that employ sophisticated, complex and specialized manufacturing equipment (known in the industry as “tools”). This equipment conducts hundreds of carefully controlled steps to deposit, modify, and remove chemicals – in exactly the right amount, in exactly the right place, at exactly the right time – to a thin, round slice of silicon (known as a “wafer”) to create numerous patterned layers of the integrated circuit, typically many thousands of times thinner than that of a human hair. Tools are costly, highly engineered pieces of equipment comprised of many thousands of components and costing millions of dollars (USD). They can require service periodically which can include installation of replacement parts that must conform for years to come to the original components’ design.

The thousands of individual components which make up these tools are themselves complex finished articles that are manufactured through a complex global supply chain. As a practical matter, it is an immense challenge for the global supply chain of each of these components to recognize the use of PIP 3:1 far upstream and then identify, track, qualify alternatives, and substitute the presence of PIP 3:1 in each of these components and spare parts throughout the supply chain (including in instances where PIP 3:1 may be present solely as an impurity).

Ensuring the continuation and expansion of semiconductor manufacturing in the U.S. is a recognized national priority, and Congress addressed concerns over the decline in semiconductor manufacturing in the U.S. in the recent defense authorization act (P.L. 116-283) and authorized a program to incentivize semiconductor manufacturing.<sup>2</sup> Consistent with this goal, we request that EPA provide the suppliers of semiconductor manufacturing equipment with additional time to implement the requirements of this final rule and exercise enforcement discretion so that our suppliers can conduct the due diligence needed to identify the presence of this material, qualify substitutes, and implement replacements throughout the supply chain.

Sincerely,



David Isaacs  
Vice President, Government Affairs

cc: Mark Hartman and Joel Wolf, OPPT

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<sup>2</sup> The Pentagon’s most recent industrial policy report highlights the need for the U.S. to maintain a robust semiconductor manufacturing capability. See Office of the Secretary of Defense, “Industrial Capabilities: Report to Congress (Jan. 2021), available at <https://media.defense.gov/2021/Jan/14/2002565311/-1/-1/0/FY20-INDUSTRIAL-CAPABILITIES-REPORT.PDF>.