

URGENT CALL TO ACTION

YOUR ATTENTION IS NEEDED TO ADDRESS YOUR COMPANY'S POTENTIAL EXPOSURE TO THE ONCOMING BAN ON "PFAS"

This is an urgent call to all electronics manufacturers to gather and share with IPC information on the use of PFAS in your supply chains. Without such information, IPC cannot effectively advocate for you during a critical policymaking window this summer, and the industry will be at increased risk of facing disruptive regulations in the EU as the regulation takes effect over the next three years. It is likely that the industry will risk EU market withdrawal, or the industry must go PFAS-free.

Executive Summary

On behalf of IPC's member-led Environment and Health Strategic Management Team, IPC is requesting detailed data on PFAS uses and alternative chemicals in electronics manufacturing processes and products in anticipation of broad restrictions on the manufacture and import of PFAS and PFAS-containing products in the European Union (EU) under the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation.

A lack of industry data will result in limited industry advocacy, which in turn could result in few or no exemptions to the PFAS restriction. Without exemptions, the industry would have to comply with disruptive restrictions. Manufacturers could be forced to decide between withdrawing from the EU market or adopting PFAS alternatives in their products and processes.

PFAS are per- and polyfluoroalkyl substances, a broad category of chemicals widely used in consumer, commercial, and industrial processes, and in products. Based on concerns about their toxicity and persistence in the environment, PFAS could be banned, including commonly known PFAS such as PFOA, PFOS, ETFE, and fluoropolymers such as PTFE and PVDF (trade name Kynar). Such bans will impact the downstream uses of the chemicals in manufacturing processes and products, such as those necessary for electronics. Common properties associated with PFAS relevant to the electronics industry include insulating properties, high thermal resistance, low surface tension, and chemical resistance.

Despite IPC's efforts over the past two years to raise awareness about how these restrictive policies could affect the electronics industry, IPC has not received sufficient information that would enable us to advocate credibly before policymakers. This information is critically important in persuading policymakers that PFAS are essential to manufacturing processes and electronics products and, therefore, should be considered for derogations – the EU term for exemptions -- from regulations that restrict manufacturing and uses of PFAS.

Recognizing the importance of electronics manufacturing to several other industries – such as defense, automotive, aerospace, medical, and more – it is crucial to understand PFAS uses and alternatives across the supply chain. Otherwise, we jeopardize the production of electronics across all industries.

A lack of data will result in limited industry advocacy, which in turn will result in the risk of few or no exemptions. Without exemptions, the industry will have to comply with disruptive restrictions, with manufacturers forced to decide between withdrawing from the EU market or adopting PFAS alternatives in their products and processes. There is a strong potential for dramatic supply chain disruptions.

For IPC to effectively compile and analyze data for inclusion in an initial submission to European regulatory authorities, we need detailed data -- or a commitment to being able to identify and submit the appropriate data -- **by 19 May 2023**. For IPC to prepare for submission by the close of the consultation period, it would need appropriate data by **4 August 2023**.

Background

The Proposal for a Restriction was published by the European Chemicals Agency (ECHA) in February 2023. If adopted as proposed, this restriction will be the broadest ban coming out of the EU to date. The proposal would effectively restrict the manufacture and placing on the market all PFAS and PFAS-containing products in the EU, involving more than 10,000 PFAS.

Currently ECHA has defined PFAS as substances that contain at least one fully fluorinated methyl (CF₃-) or methylene (-CF₂-) carbon atom (without any H/Cl/Br/I atom attached to it). Any chemical that falls into this definition is potentially subject to the ban.

The proposed restriction provides stakeholders an opportunity to provide information to policymakers within a six-month consultation period from 22 March through 25 September 2023. Although submissions are encouraged during the entirety of the consultation period, initial confirmations of having appropriate and relevant data and information, even if general, should be submitted prior to ECHA's Risk Assessment Committee (RAC) meeting on June 5 or 6 and the Socioeconomic Analysis Committee (SEAC) meeting on June 9.

This is a critical moment for the industry to participate in the consultation period to provide the information necessary to make the case for derogations. The earlier data can be submitted, the better. We encourage companies to provide any preliminary data or a statement documenting the likelihood that appropriate data will be identified as soon as possible.

IPC encourages companies to provide any preliminary data or statements documenting the likelihood of having appropriate data as soon as possible.

ECHA has made clear that derogations will be considered based on technical data and information about current PFAS uses and whether alternatives exist. If no information is provided about the lack of availability of alternatives, then ECHA may assume that alternatives do exist, and no derogations may be provided.

Background on IPC/ ENV SMT Role and Previous Efforts

IPC has been working diligently over the past two years to prepare industry for the anticipated PFAS regulations. Our outreach has included hosting and attending several professional meetings on PFAS to prompt industry to examine their supply chains to understand where and how PFAS are used. IPC has also targeted several sub-sectors of the electronics industry, including EMS, OEM, PCB, and wire, harness, and cable companies, to push for obtaining PFAS data within their supply chains.

IPC is a member of an ad-hoc group composed of several electronics associations in the United States and Europe that are sharing information and developing strategies in preparation for the PFAS restriction. The ad hoc group has drafted an initial “PFAS Uses in Electronics” data sheet; however, it is sourced from publicly available information and has not yet been well fact-checked by industry. If you would like to access this document to provide feedback, please contact [Suhani Chitalia](#).

Information Needed to Advocate

In order for IPC to advocate on behalf of industry, it is imperative that technical data is made available from industry and its supply chain. ECHA will not consider any general or political statements. The agency has posed specific questions for stakeholders.

While we understand that not every answer can be detailed, any data and insight on the questions below will be beneficial. Through this information sharing, we anticipate being able to fill in gaps and consolidate data for a comprehensive response.

From the ECHA questionnaire, Question 6 is most relevant to the industry. The entire questionnaire is available in the Addendum or on the ECHA website. The following industry information would be welcomed by ECHA:

- **Question 6: Missing uses – Analysis of alternatives and socio-economic analysis:** Several PFAS uses have not been covered in detail in the Annex XV restriction report (see uses highlighted in blue and orange in Table A.1 of Annex A of the Annex XV restriction report). In addition, some relevant uses may not have been identified yet. For such uses, specific information is requested on alternatives and socio-economic impacts.
 - a. Key functionalities provided by PFAS for relevant use
 - b. Number of companies in the sector estimated to be affected by the restriction
 - c. The availability, technical and economic feasibility, hazards and risks of alternatives for the relevant use, including information on the extent (in terms of market shares) to which alternative-based products are already offered on the EU market and whether any shortages in the supply of relevant alternatives are expected
 - d. For cases in which alternatives are not yet available, information on the status of R&D processes for finding suitable alternatives, including the extent of R&D initiatives in terms of time and/or financial investments, the likelihood of successful completion, the time expected to be required for substitution (including any relevant certification or regulatory approvals) and the major challenges encountered with alternatives which were considered but subsequently disregarded.

- e. For cases in which substitution is technically and economically feasible but more time is required to substitute:
 - i. the type and magnitude of costs (at company level and, if available, at sector level) associated with substitution (e.g. costs for new equipment or changes in operating costs)
 - ii. the time required for completing the substitution process (including any relevant certification or regulatory approvals)
 - iii. information on possible differences in functionality and the consequences for downstream users and consumers (e.g. estimations of expected early replacement needs or expected additional energy consumption);
- f. For cases in which substitution is not technically or economically feasible, information on what the socio-economic impacts would be for companies, consumers, and other affected actors. If available, please provide the annual value of EU sales and profits of the relevant sector, and employment numbers for the sector.

[Addendum A: Example answers to Question 6 from ECHA Questionnaire](#)

[Addendum B: Other questions by ECHA \(in addition to Question 6\)](#)

Next Steps

IPC is asking member companies to contact us with any data or information that may be relevant to the open consultation on PFAS. We encourage you to work collaboratively with your partners across the supply chain to better understand what data can be provided as soon as possible, and no later than the September 2023 deadline. If you have business confidential information and do not want to disclose it to IPC, we encourage you to submit your information directly to ECHA.

For IPC to effectively compile and analyze data for inclusion in an initial submission to European regulatory authorities, we need detailed data -- or a commitment to identify and submit the appropriate data -- by 19 May 2023. For IPC to prepare a submission by the close of the consultation period, it would need appropriate data by 4 August 2023.

We have reached a point at which some information is better than no information. Policymakers believe that alternatives are readily available, and that the industry is prepared to go PFAS- free by 2026. If that is not true, we need to document it and communicate it to avoid disruptive regulations. If you have any questions, please contact [Suhani Chitalia](#).

About IPC

IPC (www.IPC.org) is a global industry association dedicated to the competitive excellence and financial success of its 3,000+ member companies which represent all facets of the electronics industry, including design, printed board manufacturing, electronics assembly, and testing. As a member-driven organization and leading source for industry standards, training, industry intelligence and public policy advocacy, IPC supports programs to meet the needs of an estimated \$2 trillion global electronics industry. IPC maintains additional offices in Washington, D.C.; Atlanta, GA.; Miami, FL.; Brussels, Belgium; Munich, Germany; Bangalore and New Delhi, India; Bangkok, Thailand; and Qingdao, Shanghai, Shenzhen, Chengdu, Suzhou and Beijing, China.

About the Environment and Health Strategic Management Team (ENV SMT)

The ENV SMT is a member-led government relations committee that serves as IPCs experts on environmental and health-related policies. IPC relies on member volunteers to participate in the ENV SMT to identify policy priorities and shape advocacy efforts. The ENV SMT currently includes representatives from Amphenol, BAE Systems, Bose, Enics, IBM, Intel, Keysight, Kyndryl, L3Harris, Lockheed Martin, Panasonic, Raytheon, Sabic, Safran Group, TI, Toyota North America, and TTM Technologies.