Setting Standards for Excellence

PFAS Position Paper

PFAS are a very broad group of chemicals/PFAS should not be regulated as a Single Group.

Per- and polyfluoroalkyl substances, collectively known as PFAS, are a broad and diverse class of over 10,000 man-made chemicals[1] in the form of liquids, gases or solids. Different PFAS have varying levels of persistence. Some PFAS are very persistent, while others are fully degradable. Different PFAS have different levels of toxicity. PFAS's ability to affect the environment depend on their physical form.

Each individual PFAS or group of similar PFAS should be regulated based on the specific risks it poses; risks associated with one member of the class should not be attributed to other members of the PFAS class without clear scientific justification.

PFAS Provide Essential Benefits

Because PFAS molecules have unique properties, including very strong chemical bonds, they are employed in myriad applications. PFAS are used to make fluoropolymer coatings and products that resist heat, oil, stains, grease, and water.[1] PFAS are also used to manufacture certain plastics or applied plastics, including polytetrafluoroethylene (PTFE, best known under the brand Teflon) and polyvinylidene fluoride (PVDF).[4] Fluoropolymers withstand high temperatures and resist interference from other substances, which increases reliability and prevents fires.[2] There are no known practicable alternatives which provide these critical properties to essential products.

PFAS are used to make a diverse array of essential products, many of which are critical contributors to meeting our nation's goals relating to electrification, energy security, and

[1] ECHA PFAS dossier

[2] *Id.*

sustainability. These products include electronic components found in pacemakers, electronic sensors, industrial automation relays and soft starters, circuit boards, solar panels and semiconductors.[3,4] PTFE, which is included in broad PFAS definitions, is used as an electrical insulator ultra-high performance insulated wire, which is used in transformers, electrical vehicles, wind turbines, and assorted motor applications where failure cannot be tolerated. PTFE also provides an essential insulating function in high voltage circuit breakers.

Other PFAS, such as C4-Fluronitrile and C5-Fluroketone gases, are important alternatives to SF_6, which has a high global warming potential. In grid decarbonization strategies throughout the country, C4-Fluronitrile, and C5-Fluroketone can replace Sulfur Hexafluoride (SF_6) in providing insulation for medium- and high-voltage switchgear and circuit breakers at a much lower climate impact

Regulations Should be Based on Sound Science and Should Apply a Risk-Based Approach to Consider Both Hazard and Exposure

Any regulatory action addressing PFAS should be based on sound, peer-reviewed science and a transparent and well-informed record. Agencies should identify sources of uncertainty and the research needed to reduce those uncertainties, and regulations should remain flexible to accommodate emerging science.

PFAS Should Not be Regulated as a Single Group. PFAS have a wide variety of different properties and uses. Due to this variation, it is not appropriate to assume equal toxicity/potency across chemicals in the form of liquids, gases or solids and of varying molecular weight and chain length. Instead, each individual chemistry or sub-grouping should be regulated based on the specific risks it poses; risks associated with one member of the class should not be attributed to other members of the PFAS class without clear scientific justification.

[3] https://www.atsdr.cdc.gov/pfas.

[4] https://fluoropolymerpartnership.com.

Regulations Should Apply a Risk-Based Approach to Consider Both Hazard and Exposure. To best protect human health and the environment, a risk-based approach focuses limited agency resources on the highest priorities based on actual environmental, health, and safety risk of particular chemistries, not just the mere presence of a substance.

Targeted PFAS Should Be Identified by Its Unique CASRN. Chemical Abstract Service Registry Numbers (CASRN) are unique numerical identifiers assigned by the Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature from 1957 through the present. Without the CASRN to pinpoint the chemical in question, it would be difficult (if not impossible) to accurately assess the impact of any impending regulatory action on the 12,035 PFAS [5] identified by EPA (at the time of publication).

Increasing Regulatory Initiatives

Decision makers should consider key industry principles on PFAS. Considering these points will help to ensure quick and unchallenged passage of necessary legislation and regulations vital to protecting human health and the environment.

Additional Regulatory Principles

- Regulatory bodies should invest in peer-reviewed scientific research and the management, mitigation, and ongoing monitoring of priority PFAS.
- Regulations should be consistent and coordinated among agencies so that government regulations, actions, and communications are harmonized and coordinated for maximum effectiveness and minimum burden to regulated parties.
- Regulatory bodies should provide risk communication and regulatory transparency to ensure that the public can easily understand the actual risks

[5] https://comptox.epa.gov/dashboard/chemical_lists/pfasmaster

associated with specific PFAS. This includes transparent communication regarding the processes associated with evaluating those chemicals as well as any scientific uncertainties in those analyses.

- Governments should follow good public policy processes by including the opportunity for meaningful consultation with all stakeholders. Sufficient notice must be provided to ensure process transparency and the ability to engage in comment opportunities.
- Regulatory outcomes should not be predetermined. Regulatory decisions should be made using existing regulatory frameworks, which have been developed carefully over time to assure that, in the course of regulating, all relevant public policy goals are considered.
- Regulations should provide achievable timelines and abundant notice to stakeholders to enable successful compliance with requirements.

Conclusion

In conclusion, PFAS represent a large and complex array of chemicals. This chemical family provides many essential services for which suitable alternatives have not yet been identified. However, we must protect human health and the environment. Therefore, to ensure a quick and unchallenged passage of legislation and regulations to address this problem, decision makers should carefully consider the points made herein.