COOKWARE SUSTAINABILITY ALLIANCE

April 4, 2025

To: The Honorable Chair Lyons, Vice Chair Larocque Gulick and Members of the Senate Health and Welfare Committee

Subject: H.238 An act relating to the phaseout of consumer products containing added perfluoroalkyl and polyfluoroalkyl substances

The Cookware Sustainability Alliance (CSA) provides science-based information about the safety of cookware products for consumers and policymakers to make informed decisions. Our priority is to educate and advocate. When it comes to public health, we believe strongly that public policy decisions should be guided by sound science. However, we formed only last summer, so we came together too late to engage with Vermont and this Committee on S. 25.

As you know, there are over 14,000 chemicals in the PFAS group. Fluoropolymers are one of them. PTFE is the most common type of fluoropolymer.

I want to briefly address a few claims that we've heard recently about fluoropolymers. The first one is this: some parties still claim that Fluoropolymers are just another PFAS chemical; that they are in fact dangerous. However here are the facts:

- Fluoropolymers up to 1000 times longer than a PFOA or PFOS molecule, which are widely considered the PFAS chemicals of most concern. As a result of their length and weight, they pass right through a human body.
- They do not bioaccumulate.
- They are not water soluble, so exposure through drinking water is simply not a concern.
- Fluoropolymers have been proven in multiple studies to be non-toxic.

Fluoropolymers don't have the alkyl groups of hydrogen and oxygen atoms that exist at the end of a PFOA or PFOS chain, which are what binds PFOA and PFOS to organic matter. Because they lack these alkyl groups, Fluoropolymers are inert; they are not bio-available.

Everything I've just stated has been published in independent, refereed, scientific journal articles for years; none were commissioned by industry.

The second claim I'd like to address is that PTFE production *does* involve PFOA and PFOS, which as I said are known to be PFAS chemicals of concern. Major chemical producers voluntarily stopped producing PFOA as early as 2013. PFOA was used as surfactant to assist in the chemical dispersion and was removed at the end of the PTFE

production process. The cookware industry does not use PFOA or PFOS. We do not dispute that they are chemicals of concern. However, any alleged connection made today between PFOA/PFOS and fluoropolymers, reflects *historic* practices that were discontinued long ago. These claims simply *should not guide future* policy decisions.

The third and final claim I'd like to address is that nonstick pans can break down and release dangerous chemicals during their so-called "end-of-life", which is predominantly in landfills.

In September 2024, an independent, refereed article in Europe described a mixed sample of fluoropolymers representing 80% of commercial fluoropolymers that was combusted at conditions representative of municipal and industrial waste incinerators operating in the EU. Statistical analysis of the results confirmed non-detect to negligible levels of PFAS, which was evidence of the mineralization of fluoropolymers. Also, there was no discernible effect of temperature on the mineralization of fluoropolymer and testing at 860 ◦C versus 1095 ◦C.

Since the 1960's, federal regulations (21 CFR 175.300) under the U.S. Food and Drug Administration have authorized fluoropolymers for use in food contact applications. In June 2024, the USFDA *again* determined that PTFE cookware is safe due to "highly polymerized coating bound to the surface of the cookware, showing negligible amounts of PFAS in this coating migrating to food, and polymerized or large molecule PFAS are not absorbed by the human body when ingested." Other international regulatory bodies and governments have followed suit:

- The **European Food Safety Authority** found that due to its molecular size, PTFE will not likely be absorbed through the gastrointestinal barrier (2016; reaffirmed in 2020).
- The **German Federal Institute for Risk Assessment (BfR**) found that "the quantities of these substances (PTFE) which can potentially be released if the dishes are used for their intended purpose are so low that no risk to health should be assumed" and "It is still safe to health if minute particles are released from scratched coatings and swallowed when eating. As PTFE is inert, these particles are not digested and are excreted from the body unchanged." (Dec. 2018)
- The **Swiss Consumer Federation** confirmed that modern manufacturing processes for nonstick pans eliminate perfluorooctanoic acid (PFOA) and bind other compounds so firmly that no traces of PFOA have been found in final products. (March 2019)
- The **Governments of France, the UK and Japan** have also approved the use of fluoropolymers in cookware.

In March 2025, the Canadian federal government's Environment and Climate Change Canada (part of the Health Department) released a Summary of a Proposed Risk Management program, to include PFAS Chemicals in the Canadian Environmental Protection Act. The intent according to the Canadian government was to "Addressing PFAS as a class will help to protect the environment and human health"

Importantly, the report specifically called for the *exclusion* of fluoropolymers. The report said, “excluding fluoropolymers as defined in the State of PFAS Report, is concluded not to meet the criteria under paragraph 64(b) of CEPA as these substances are not entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger to the environment on which life depends.”

The **American Cancer Society** writes, “In most cases, the American Cancer Society does not determine if something causes cancer. Instead, we look to other respected organizations that classify potentially cancer-causing exposures. While some PFAS can be used in making some non-stick cookware coatings, they are joined together in large molecules (polymerized) and are tightly bound to the cookware, according to the FDA.”

The **Environmental Working Group** wrote this on their website about Cookware in Feb. 2024: “Even though it’s always been the poster child for PFAS exposure, this [nonstick] cookware is not anticipated to be a major source of exposure.”

There are of course alternatives to non-stick cookware, such as ceramic cookware or cast-iron pans. However, the non-stick properties in ceramic cookware lasts one-third the time of the non-stick properties of fluoropolymer coated pans, which can result in ceramic pans being discarded three times more often than non-stick pans. This obviously can result in significant additional negative environmental impacts. Cast iron pans require oil or butter, neither of which is as healthy for families as cooking on a non-stick surface. When overheated, oil releases free radicals which can be a further health danger for families.

To summarize:

- Fluoropolymers are no longer manufactured with PFOA, which is a primary PFAS of concern.
- They do not bioaccumulate, they are not water soluble, they cannot bind to human cells, and they are non-toxic.
- Fluoropolymers have a decades-long history of safe and essential use, including being used on medical implantation devices such as pacemakers, stents, and catheters.

In fact, this final point should be among the most compelling. Pacemakers have been implanted *into human bodies* wrapped in fluoropolymer nets since 1957. Can any serious consideration of the safety of fluoropolymer chemicals suggest that this chemical *is in any way not safe* when they have been implanted by cardiac and cardiovascular surgeons into chest cavities for over seven decades?

We’re asking respectfully for your support for the additional two and half years implementation contained in the House bill, that will allow the industry to find the next breakthrough chemical that professional and amateur cooks alike will embrace as much as they do today’s nonstick cookware.

Sincerely,

Stephen D. Burns, President, Cookware Sustainability Alliance