



FERTILIZER CANADA

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**RE: Draft State of Per- and Polyfluoroalkyl Substances (PFAS) Report and Risk Management Scope. Published in the Canada Gazette, Part I, Volume 157 on May 20, 2023.**

July 19, 2023

Fertilizer Canada represents the manufacturers, wholesale and retail distributors of nitrogen, phosphate, potash, and sulphur fertilizers – the backbone of Canada’s agricultural economy, spanning hundreds of communities and contributing thousands of jobs. Fertilizer Canada and our members are pleased to have the opportunity to review and provide comments on the Draft State of PFAS Report, and proposed Risk Management Scope for per- and polyfluoroalkyl substances (PFAS), published to *Canada Gazette* Part 1 on May 20, 2023. Product stewardship is a pillar of our industry, and we are committed to our role in keeping our products safe and mitigating environmental impacts.

The Risk Management Scope document proposes that per- and polyfluoroalkyl substances, as outline in Sections 2.1 and 2.2, be added to the List of Toxic Substances in Schedule 1 of *CEPA*. PFAS are routinely used in the fertilizer sector in critical pieces of safety and production equipment, such as anti-friction plates in solid handling hoppers, wear plates on machinery, and seals in pumps. PFAS may also be present as a result of secondary exposures (outlined in further detail below). **The use of per- and polyfluoroalkyl substances is essential for the operations of certain fertilizer manufacturing processes, and no known comparable alternatives exist for many applications. These products are essential for maintaining a high level of process safety in our industrial operations, and quality of products.**

While Fertilizer Canada understands that the focus of the risk management scope document is on sources of PFAS exposure at highest risk to human and environmental health, not on use within the fertilizer manufacturing sector in particular, these substances are used within fertilizer manufacturing facilities, and are integral to our processes. Any actions to limit the use of PFAS products within Canada must take into consideration the significant and wide-spread use of these products in equipment and machinery that does not represent known exposure pathways. Limiting or restricting PFAS product use in manufacturing equipment would have significant unintended impacts, while to the best of our knowledge, would not have benefits in reducing environmental/human health exposure.



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### **Scope of use of PFAS in Fertilizer Manufacturing, and Expected Releases:**

As indicated above, PFAS are used in the fertilizer sector in anti-friction plates in solid handling hoppers, wear plates on machinery, seals in pumps, valves and other process equipment throughout fertilizer production facilities, and a wide assortment of Teflon products. Though these are the primary exposures to PFAS, there is also potential for secondary exposures to PFAS in residual amounts from the following sources at fertilizer production facilities:

- Acid mist suppressing agents
- Aerosol propellants
- Air conditioning
- Antifoaming agents
- Coatings, paints, and varnishes
- Corrosion inhibitor on steel
- Fire-fighting foam
- Flame retardants, Sealants and Adhesives (including internal piping sealant coatings)
- Floor covering including carpets and polishes, floor polish
- Heat transfer fluid
- Lubricants and greases, Lubrication oils (possibly compressor oils)
- Pipes, pumps, fittings, gaskets, and liners
- Plastic, rubber, and resins
- Protective metallic and ceramic surfaces
- Refrigerant systems
- Sumps and storage tanks.
- Surface active agents
- Surface treating chemicals
- Waterproofed or Protective Apparel (PPE)
- Wire and cable insulation, gaskets, and hoses

### **Known Alternatives to PFAS, and Anticipated Impacts of PFAS Restriction:**

To the best of our experts industry knowledge, there are no known substitutes to the vast majority of substances listed above that can effectively replace PFAS, which is mainly in part to the critical role PFAS play in the safe production, handling, and storage of products in corrosive and extreme heat conditions encountered in industrial environments. The limitation or restriction of PFAS in the fertilizer sector could have detrimental impacts to both global food security, and the safe operations of the Canadian fertilizer economy.

Ultimately, restricting the use of vital pieces of safety equipment due to the presence of PFAS, despite no current effective alternatives existing, would result in serious compromises to manufacturers safety.

Furthermore, substitution of materials is not to be taken lightly as current applications are proven in service to improve the safety and reliability of our operations, preventing unintentional releases and enhancing the reliability of equipment as every shutdown is accompanied with inherent risk.

While we understand that the adjustment of PFAS restrictions will be a long process, Fertilizer Canada urges ECCC to keep in mind the significant adverse impact PFAS



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restrictions would have on the safety of fertilizer production, and food security, despite the tertiary level use and presence of PFAS in the Fertilizer sector:

- Any restriction to PFAS carry with them significant safety risks. Facilities running at extremely high temperatures and pressures must be afforded every available asset to provide employees, with the safest possible work environment.
- PFAS restrictions would undoubtedly result in a disruption in the availability of many fertilizer products while manufacturers would be forced to find PFAS alternatives (which are currently non-existent) before resuming the safe and efficient production of fertilizers.
- This disruption of fertilizer production would impact farmers' ability to access fertilizer products they rely on for optimal crop growth within Canada and globally.
- PFAS restrictions would also result in extreme financial burdens being dumped on Canadian manufacturers to find alternative ways to adjust their production mechanisms despite the fact that suitable alternatives have not been shown to exist at the moment.

Fertilizer Canada encourages the government to support research and development efforts to find viable substitutes that ensure environmental safety while maintaining production productivity.

### **Concluding Remarks and Recommendations:**

Fertilizer Canada and its members are in support of policies that aim to achieve high environmental standards while maintaining economic integrity and global competitiveness. We appreciate the opportunity to provide initial comments in response to the Draft Screening Assessment and proposed Risk Management Scope for PFAS, as well as initial remarks and recommendations:

1. The continued safe management of these substances is essential to the Canadian fertilizer industry. **Fertilizer Canada respectfully request that the government carefully assess the potential consequences of changes to the Risk Management Scope for PFAS on the fertilizer industry.** We encourage a balanced, collaborative approach that considers the specific context of our industry, and the broader agricultural sector as a whole.
2. Again, we need to ensure safety is of paramount importance, especially when dealing with critical components of the fertilizer manufacturing process. **If a ban of PFAS were to occur, many fertilizer manufacturers would not be able to comply, as proven, safe alternatives are not currently available (i.e. non-PFAS ammonia pump seals).**



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3. Recognizing that the process of adjusting the risk management of PFAS is a long and arduous, Fertilizer Canada will continue to monitor, and gather information on the impacts of PFAS restrictions on the sector as a whole in order to better inform ECCC of the impacts of PFAS restrictions at the next opportunity for consultation.
4. **All PFAS cannot be considered equal.** There are over 4700 PFAS which are used for a variety of uses, and represent a very diverse exposure rates and risks based on their varying properties. Information should be gathered on PFAS subgroups in order to prevent unnecessary PFAS restrictions.
5. **Information gathering should precede risk assessment.** Canada has a well-established chemicals management process, which relies on information gathering before proposing risk management based on the information received. This report represents a departure from the well-defined process, and as a result, contains significant gaps due to a lack of information that would make drawing an effective and appropriate conclusion impossible.

Fertilizer Canada looks forward to the continued dialogue on the environmental impact concerns associated with the Per- and Polyfluoroalkyl Substances (PFAS) group, and as always, Fertilizer Canada would welcome an opportunity to meet with ECCC to review our comments and provide further input. Should you have any questions in relation to this submission, please do not hesitate to contact us at the coordinates below. We wish to stay informed on any further developments on this file.

Sincerely,

Nadine Frost  
Senior Director, Science and Regulatory Affairs