

**INITIATION OF PRIORITIZATION UNDER THE
TOXIC SUBSTANCES CONTROL ACT (TSCA);
REQUEST FOR COMMENT
ACRYLONITRILE**

Office of Pollution Prevention and Toxics
United States Environmental Protection Agency

**AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS
COMMENTS**

Attention: EPA-HQ-OPPT-2018-0449-0002

March 18, 2024
Dr. Michal Freedhoff
Assistant Administrator
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20004

I. Introduction

The American Fuel & Petrochemical Manufacturers (“AFPM”) respectfully submits these comments on the Environmental Protection Agency’s (“EPA” or “the Agency”) Federal Register notice titled, “Initiation of Prioritization Under the Toxic Substances Control Act (“TSCA”); Request for Comment” (“Proposed Prioritization” or “Proposal”). EPA proposes to categorize five chemicals as high priorities for risk evaluation and potential risk management under TSCA Sec. 6.¹ These comments address the selection of acrylonitrile as a candidate for high-priority designation. AFPM’s comments highlight the following concerns that the Proposed Prioritization:

- Focuses on acrylonitrile, which is a chemical intermediate with extremely low potential for exposure,
- Depends on the flawed 2014 TSCA Work Plan that falsely claims acrylonitrile is used as an ingredient in consumers goods; and,
- Moves from the Congressionally mandated risk-based approach to a hazard-based approach to prioritization by selecting acrylonitrile because it has a robust hazard dataset.

Based on the concerns raised in these comments, EPA should withdraw acrylonitrile from consideration and focus on chemicals that present the greatest potential for exposure, such as those found in consumer products.

II. AFPM Interest in the Proposed Framework

AFPM is the leading trade association representing the manufacturers of the fuels that keep America moving and petrochemicals that are the essential building blocks for organic chemistry, including plastic products that improve the health, safety, and living conditions of humankind and make modern life possible. AFPM members are committed to sustainably manufacturing safe, high-performing fuels and the petrochemicals and derivatives that growing global populations and economies need to thrive.

AFPM members produce acrylonitrile, which is a petrochemical building block (i.e., intermediate) used to make polyacrylonitrile (“PAN”) fiber. PAN is the fiber used in carbon fiber-reinforced composites. These important composites make automobiles more lightweight, saving fuel and making electric vehicles more energy efficient. Fiber-reinforced composites are also used in aircraft bodies to make jet planes more fuel efficient. They are also used to make sporting equipment, from bicycle frames to tennis rackets and skis. In addition to its criticality in carbon fiber, acrylonitrile is also used with other monomers to make copolymers, such as the ABS plastic used for computer keyboards, lightweight car parts, and Lego® blocks. Acrylonitrile is also used to make acrylic fiber that goes into rugs and clothing, in addition to its use to make adiponitrile for the production of nylon. Acrylonitrile is critical to American manufacturing of products that we use every day. It is produced and used in closed-systems and highly regulated in

¹ See 88 *Fed. Reg.* 87423, “[Initiation of Prioritization Under the Toxic Substances Control Act \(TSCA\); Request for Comment.](#)” EPA-HQ-OPPT-2023-0601; FRL-11581-01-OCSPP, published December 18, 2023.

industrial and manufacturing settings. These processes transform these intermediates into new molecules that have proven safe in commerce.

AFPM member companies are regulated under TSCA, and their products have been and will continue to be subject to TSCA risk evaluations. If properly implemented, TSCA can be a critical statute to ensure sound chemical management. Unfortunately, in this case, EPA is using TSCA to target industrial chemicals used to make plastics as a means to limit plastic products. Acrylonitrile is used in the production of plastics, among other things. These efforts under TSCA appear to be designed to disrupt critical plastics supply chains despite these chemicals being used in industrial settings and in closed processes that are highly regulated.

III. Comments on the Prioritization Proposal for Acrylonitrile

EPA is not meeting its statutory obligations for designation of high-priority substances.

EPA is required under TSCA Sec. 6(b)(3)(C) to “designate at least one high-priority substance upon the completion of each risk evaluation.”² TSCA Sec. 6(b)(2)(D) directs the Agency to give preference to chemicals “that are listed in the 2014 update of the TSCA Work Plan for Chemical Assessments [“2014 TSCA Work Plan”] as having a Persistence and Bioaccumulation Score of 3,” and “are known human carcinogens and have high acute and chronic toxicity.”^{3,4} Acrylonitrile has a persistence and bioaccumulation score of only 1. EPA points to a general hazard category score in Unit III.B., but this general hazard score does not specify that acrylonitrile is a known human carcinogen *and* has high acute *and* chronic toxicity.⁵ On the contrary, EPA’s own fact sheet on acrylonitrile states that it is a “probable human carcinogen (Group B1),” and that classification is just based EPA’s own internal assessment.⁶ The lowest LC₅₀ (rat) for acrylonitrile is 425 ppm. The classification of high toxicity is below 100 ppm, so clearly acrylonitrile does not have high acute toxicity.⁷

TSCA Sec. 6(b)(1)(A) stipulates that the “process to designate the priority of chemical substances shall include a consideration of the hazard and exposure potential.”⁸ Sec. 6(b)(1)(B)(i) reiterates Congressional direction when it requires EPA to prioritize substances that “may present an unreasonable risk of injury to health or the environment because of a potential hazard and a potential route of exposure under the conditions of use.”⁹ In the 2014 TSCA Work Plan, the Agency claims that acrylonitrile is used as an ingredient in consumer products, which is

² See [TSCA Sec. 6\(b\)\(3\)\(C\)](#).

³ See [TSCA Sec. 6\(b\)\(2\)\(D\)](#).

⁴ See [2014 update of the TSCA Work Plan for Chemical Assessments](#).

⁵ See *88 Fed. Reg. 87423*, “[Initiation of Prioritization Under the Toxic Substances Control Act \(TSCA\): Request for Comment](#),” EPA–HQ–OPPT–2023–0601; FRL–11581–01–OCSPP, published December 18, 2023. p. 87425.

⁶ See EPA’s [fact sheet on acrylonitrile](#).

⁷ See CDC/NIOSH [fact sheet on acrylonitrile](#). An LC₅₀ is a routine measurement of lethal concentration, in parts per million, that is used to determine the level of acute toxicity for a given substance. Also see the International Labour Organization for [toxicity classifications](#).

⁸ See [TSCA Sec. 6\(b\)\(1\)\(A\)](#).

⁹ See [TSCA Sec. 6\(b\)\(1\)\(B\)\(i\)](#).

not supported by current knowledge of this product.¹⁰ EPA acknowledges that acrylonitrile is used as an intermediate to make other chemicals on its own fact sheet.¹¹ Acrylonitrile, like other intermediates, is used in a closed process that totally consumes the substance. In this Proposal, EPA is disregarding the exposure component of the risk equation and appears to be moving toward a hazard-based approach to prioritization, which runs counter to Congressional intent.

EPA focuses mostly on hazard, not risk, as a determining factor for prioritization.

Acrylonitrile has a robust hazard dataset. In Unit III.A., EPA notes that “data availability was a significant driver of the Agency’s selections” and that “chemicals ultimately designated as High-Priority Substances for risk evaluation should have a robust data landscape,” which penalizes acrylonitrile just because it possesses a more full hazard dataset.¹² There are no provisions in TSCA Sec. 6 that direct or authorize EPA to use completeness of hazard data as a criterion for high-priority designation. Focusing on hazard data is a hazard-based approach to chemicals management and contradicts the whole intent of TSCA. Congress intended TSCA to be a risk-based approach, which is evident throughout the entire statute. EPA should abandon its attempt to focus on hazards and fully consider the potential for exposure, or in this case the lack thereof, and prioritize chemicals the way that Congress intended.

EPA does not demonstrate that the conditions of use for acrylonitrile present a significant potential for exposure.

In Unit III.B., EPA generally notes that acrylonitrile was reported in 2020 under the Chemical Data Reporting (“CDR”) rule but the Agency does not provide any information on what it found in the CDR to support its claim that the conditions of use for acrylonitrile could lead to a significant potential for exposure.¹³ Information reported under the CDR rule is general usage information and there is no legitimate reason that EPA cannot aggregate it to support its assertion in the proposed rule.

IV. Conclusion

AFPM has serious concerns about EPA selecting acrylonitrile for consideration as a high priority. The Agency has provided no information to support a finding of significant potential exposure. Acrylonitrile is a petrochemical intermediate used in closed systems to make other chemicals and is consumed in those chemical processes. The TSCA statutory language is very clear that EPA must demonstrate a potential for exposure that may lead to an unreasonable risk. Acrylonitrile also does not have the required persistence, bioaccumulation, and toxicity levels that TSCA requires for consideration as a high-priority chemical. EPA must remove acrylonitrile

¹⁰ See [2014 update of the TSCA Work Plan for Chemical Assessments](#).

¹¹ See EPA fact sheet for [acrylonitrile](#).

¹² See 88 *Fed. Reg.* 87423, “[Initiation of Prioritization Under the Toxic Substances Control Act \(TSCA\): Request for Comment](#).” EPA–HQ–OPPT–2023–0601; FRL–11581–01–OCSPP, published December 18, 2023. p. 87424.

¹³ *Id.* at 87425.

from further consideration so it can concentrate on substances that may actually present an unreasonable risk.

Sincerely,

A handwritten signature in black ink, appearing to read "James R. Cooper". The signature is fluid and cursive, with the first name "James" and last name "Cooper" clearly legible, and "R." in the middle.

James Cooper
Senior Petrochemical Advisor