Before the United States
Environmental Protection Agency
N-Methylpyrrolidone (NMP); Draft Toxic Substances Control Act (TSCA) Risk Evaluation and TSCA Science Advisory Committee on Chemicals (SACC) Meeting; Notice of Availability, Public Meeting, and Request for Comment
84 Fed. Reg. 60,087 (Nov. 7, 2019); Docket EPA-HQ-OPPT-2019-0236

Comments of the Chemical Users Coalition

The Chemical Users Coalition ("CUC") appreciates the opportunity to provide these comments regarding the U.S. Environmental Protection Agency's ("EPA") Draft Risk Evaluation of N-Methylpyrrolidone ("NMP").

CUC is an association of companies from diverse industries interested in chemical regulatory policy from the perspective of entities that typically acquire and use, rather than manufacture or import, chemical substances.[1] CUC encourages regulators seeking to develop and implement requirements to protect health and the environment to do so in a manner that enables the regulated community's ability to pursue technological innovation simultaneously with sustainable economic development in the United States. This is particularly important in the area of chemical regulatory policy, which necessarily addresses how core technologies and products can be adapted to address emerging information about health and environmental risk.

CUC continues to be constructive in its support of the Agency's efforts to implement the 2016 amendments to the Toxic Substances Control Act ("TSCA") and recognizes EPA's considerable efforts to meet the demanding deadlines imposed by the amended law. CUC encourages the Agency to adopt the most practical regulatory measures appropriate to reduce potential risks of exposure to and inadvertent releases of chemical substances. In evaluating chemical substances and weighing potential regulatory measures, EPA should take a risk-based approach and focus on the current conditions of uses of such substances while considering carefully the ways in which such uses can vary across different segments of industry. Additionally, any scientific data used to support EPA regulatory action should be developed through the review of the most credible information and data and consistent application of reliable scientific principles. A commitment to grounding regulatory actions in sound science is particularly important as EPA completes the first ten draft risk evaluations under the amended TSCA, including the risk evaluation for NMP, as these risk evaluations will set the precedent for the developing TSCA risk evaluations for the foreseeable future.

CUC expects that many members of the regulated community will submit comments to EPA regarding the draft NMP Risk Evaluation raising issues concerning the manner in which the Agency has assessed the conditions of NMP use and the potential risks presented by such uses in

[1] The members of CUC are Airbus S.A.S., The Boeing Company, HP Incorporated, IBM Company, Intel Corporation, Lockheed Martin Corporation, and United Technologies Corporation.

specific industry sectors. CUC encourages EPA to further particularize its NMP evaluation to consider the actual, rather than hypothetical, conditions of use in specific industry sectors within the scope of the draft risk evaluation. This requires EPA to take into account current practices in a given sector and the Industrial Hygiene practices and engineering controls common to a particular condition of use under review. CUC considers this to be a concern not specific to the draft NMP Risk Evaluation but to be a concern it has identified in several draft Risk Evaluations. This issue is of importance to CUC's members because conducting well-informed and scientifically objective Risk Evaluations is among the Agency's obligations under the procedural rule it has codified for conducting Risk Evaluations. *See* 40 CFR Part 702.

Moreover, Section 26 of the amended statute compels EPA to review and consider *all* information reasonably available to EPA concerning specific conditions of use and to use the best available science. When EPA receives and/or can readily gain access to such information, the Agency must make every effort to incorporate the information in its Risk Evaluation to objectively reflect sources in the public domain as well as data provided by commenters in the regulated community. Doing so is a necessary component of applying a "weight of the scientific evidence" approach which is required in the 40 CFR Part 702 (Risk Evaluation) rule and Section 26 of the amended Act.

Additionally, given the precedent-setting nature of the first ten Risk Evaluations released in draft form to date, CUC urges EPA to take a risk-based approach to developing TSCA risk evaluations—including by limiting "unreasonable risk" findings solely to those conditions of use analyzed in a Risk Evaluation which present unreasonable risks when considering both hazard *and* exposure. To that end, CUC members encourage EPA to carefully consider feedback and information provided by regulated entities that are familiar with the actual conditions of use and existing practices within the relevant sectors within the scope of the evaluation as the Agency works to develop the final versions of its first ten Risk Evaluations.

CUC understands that the TSCA Science Advisory Committee on Chemicals has identified and will be providing comments on certain scientific concerns it has expressed concerning the draft NMP Risk Evaluation. In light of the need to ensure that any regulatory action taken based on the results of this Risk Evaluation is based on the best available science, EPA should pay particular attention to the recommendations of the Science Advisory Committee and make revisions to the draft Risk Evaluation as appropriate.

Among the scientific issues identified in the draft risk evaluation for NMP about which CUC members have expressed concern is EPA's reliance on a Benchmark Response ("BMR") of 1% to address the relative "severity of the effect" when deriving the point of departure for acute exposures to NMP. Although EPA has provided a brief explanation for deviating from a 10% BMR to address the relative severity of fetal resorptions as a toxicological endpoint when deriving a point of departure for acute exposure to NMP,[2] CUC members would like the Agency to better

[2] *Draft Risk Evaluation for N-Methylpyrrolidone (2-Pyrrolidinone, 1-Methyl-) (NMP)* at 203-04 ("A BMR of 5% relative deviation for decreased fetal body weight was used because in the absence of knowledge as to what level of response to consider adverse, it has been observed that 5% change relative to the control mean is similar to statistically derived NOAELs in developmental studies.") (internal citation omitted).

justify the scientific basis for this decision. CUC requests that this subject be addressed specifically in any final version of the NMP Risk Evaluation.

Fetal resorption is known to be a fairly common phenomenon observed in unexposed rodents. For example, in studies cited by the Agency in its Risk Evaluation, the percentage of resorption sites per litter in untreated controls was 2.7% in Saillenfait 2003 and 4.1 % in Saillenfait 2002. Further, no statistically significant differences were reported in the percentage of resorption sites per litter between unexposed controls and any exposure group in the rat inhalation study utilized by EPA for benchmark dose modeling of this end point (Saillenfait et al., 2003). EPA's key reference for resorption following oral ingestion in rats reported a statistically significant increase in the percentage of resorption sites per litter only at the two highest doses of 500 mg/kg/day and 750 mg/kg/day (Sallenfait et al., 2002).

A BMR of 10% is typically used, and EPA's *Benchmark Dose Technical Guidance* provides that a BMR of *less than* 10% should be used only when "supported by the statistical and biological characteristics of the data set."[3] According to the supplemental materials for EPA's Risk Evaluation, a continuous model was used to fit dose response data for the mean number of resorptions.[4] EPA's *Benchmark Dose Technical Guidance* further states that "[t]he ideal is to have a biological basis for the BMR for continuous data, e.g., a consensus scientific definition of what minimal level of change in a continuous endpoint is biologically significant."[5] Consistent with this guidance, when EPA has declined to use a BMR of 10% when calculating points of departure for other chemical substances undergoing risk evaluations, EPA has provided a more detailed explanation for this deviation.[6] Given the limited statistical significance for increased resorption following NMP exposure reported in the Saillenfait et. al. studies (2002, 2003) and the high variability observed at the low end of the dose response curve as shown in Figure 3-1 in EPA's NMP *Benchmark Dose Modeling Supplemental File*, CUC requests that prior to issuing a final Risk Evaluation, EPA reconsider its position with respect to the BMR selected, or provide additional evidence to support the biological basis for the use of a 1% BMR for the resorption endpoint.

CUC appreciates the Agency's interest in soliciting public input on the draft risk evaluation for NMP. CUC would be pleased to meet with EPA personnel to discuss these comments and related issues as the Agency continues to develop the first ten draft risk evaluations under the amended TSCA.

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[3] *Benchmark Dose Technical Guidance*, U.S. Envtl. Protection Agency, EPA/100/R-12/0001, at 20 (June 2012), https://www.epa.gov/risk/benchmark-dose-technical-guidance.

[4] https://www.epa.gov/sites/production/files/2019-11/documents/15_nmp_benchmark_dose_modeling.pdf.

[5] *Id.* at 22.

[6] *See, e.g.*, *Draft Risk Evaluation for 1-Bromopropane (*n-*Propyl Bromide)*, U.S. Envtl. Protection Agency, EPA Doc. No. EPA-740-R1-8013 at 165 (Aug. 2019), https://www.epa.gov/sites/production/files/2019-08/documents/01._1-bp_draft_risk_evaluation_hero_links_external.pdf (explaining that a BMR of 5% relative deviation was selected for decreased pup weight "consistent with the assumptions that development represents a susceptible lifestage and that the developing animal is more adversely affected by a decrease in body weight than the adult"); *Draft Risk Evaluation for Cyclic Aliphatic Bromide Cluster*, U.S. Envtl. Protection Agency, EPA Doc. No. EPA-740-R1-8013 at 314 (Aug. 2019), https://www.epa.gov/sites/production/files/2019-08/documents/01._1-bp_draft_risk_evaluation_hero_links_external.pdf (same).