AmericanCoatings
ASSOCIATION℠

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RE: Safer Products for Washington Phase 3 Working Draft Criteria for Feasible and Available; ACA Comments

Dear Cheryl:

The American Coatings Association (ACA) appreciates the opportunity to review the seven-page document "Safer Products for Washington Phase 3 Working Draft Criteria for Feasible and Available" that was posted on February 23 by the Washington State Department of Ecology (Ecology). We realize that this document and its criteria are not required to undergo standard notice and rulemaking procedures, yet Ecology has said it is open to feedback on this and other aspects of the Safer Products for Washington program. Overall, we found the document difficult to read and highly dependent on an external document (Interstate Chemicals Clearinghouse Alternatives Assessment Guide, Interstate Chemicals Clearinghouse [IC2], January 2017, version 1.1, 183 pages), so we have provided comments below on how to improve the quality through: (1) Pulling out the evaluation of inadvertent impurities and by-products as a separate process;(2) Adding an additional factor to assure adequate supply of an alternative; and (3) A list of editorial suggestions.

1. A separate process for evaluating impurities and by-products

ACA has primarily interacted with Ecology's Safer Products for Washington program regarding inadvertent polychlorinated biphenyls (iPCBs) that are unwanted trace by-products present in certain pigments. With this focus in mind, we reviewed the draft "feasible and available" criteria document and found it needs to separate out the inadvertent from intentional ingredients. Comingling the two items leads to convoluted discussions and confusing diagrams.

The logical flow of a recommended separate section on impurities and by-products replaces the information presented as Step 2c (page 4):

Are other chemical sources available without the impurity or by-product?

- If alternative sources are available with lower levels of the impurity or by-product, then this is feasible [and available] and no further feasibility evaluation is necessary.
- If there are no alternative chemical sources, the evaluation continues.

A separate decision flow diagram could easily be drawn for the above steps.

The above steps remove the concept that an impurity or by-product can be "eliminated." The IC2 (2017) guide primarily uses the term "eliminate" to mean the removal of an ingredient of concern or its substitution. Using "eliminate" to indicate achieving a concentration of zero is problematic. Analytical chemistry has progressed to the point where any sample, source or product can be found to have detectable levels of PCBs if extraction is performed on a large enough sample. Even "blank" samples often show some PCBs at the part-per-quadrillion level. A sound approach, therefore, is to reduce the levels rather than achieve zero or undetectable levels. Figure 6 (IC2, 2017) seems to confirm this with the decision box "Alternative chemical source available without or with **less** of the by-product/impurity?" (emphasis added).

It is also noteworthy that the draft document uses the term "sources" and not end-use products. In our discussions with Ecology, the preference has been for analyzing end-use paints rather than upstream colorants or their pigments. With this mention of "sources" being an option for alternatives assessment, we propose that colorants (rather than downstream end-use paints or upstream pigments) be the focus of Ecology's evaluation of iPCBs. Colorants (liquid concentrates of pigments) are available for sampling by Ecology at retail stores and only involve a dozen or so manufacturers. End-use paints, on the other hand, increase the challenge of sampling and analysis exponentially. Although the actual sources of iPCBs in paints are certain pigments, receiving and analyzing such samples from the worldwide network of manufacturers would prove challenging and yield no substantial benefit over analyzing colorants.

2. Criteria for "available" should include the availability of an adequate supply of an alternative

Currently, WA Ecology's analysis of "available" rests on the following two factors:

1. The alternative is currently offered for sale in the application of interest.
2. The price of the alternative is close to the current.

What is missing is consideration of sufficient supply, which is included in the IC2 (2017) guidance:

> The Cost and Availability Module helps the assessor evaluate whether potential alternatives are price competitive and available in **sufficient quantity** to meet manufacturing needs. Any alternative that is not found both in **sufficient amounts** and at an adequate price should be identified as a less favorable alternative. (Pages 8-9, emphasis added)

This third factor – addressing amount necessary to meet manufacturer demand, both current and reasonably anticipate future demands – is fundamental to assuring that alternative is actually "available" for use. To not include this third factor would be inconsistent with the IC2 (2017) guide.

3. Editorial improvements

In addition to a separate section on evaluating impurities and by-products, the draft document would benefit from a number of editorial improvements:

- For essential information, do not refer the reader to the IC2 (2017) guide. Instead, present a summary of that material and then refer the reader to the external resource for further details.
- Wherever possible, replace convoluted flow with more linear flow. For example, Step 5 refers back to Step 3 largely. Redesign the flow so this repetition does not occur, and items are only required once. Also, to avoid confusion, replace the two items labeled Step 2 with 2a and 2b and the two items labeled Step 5 with 5a and 5b. However, from a plain English reading of these steps, it's hard to find a difference between 2a and 2b as well as 5a and 5b.
- Step 2 should be moved to a preliminary step (either unnumbered or as Step 0) regarding whether a chemical in a product is "essential." This is the term of art and should replace "necessary." As a pre-filter, this step need not be part of the core "feasible and available" assessment.
- The terminology needs to be clearer, better defined and consistent:
    - Page 1: The paragraph on "availability" needs to define this term and not just refer the reader to the IC2 (2017) guide.
    - The terms "priority chemical" and "priority product" are often used interchangeably and should not be.
    - The term "performance" is clear and should be used instead of "technical feasibility" (and not hop between these two terms interchangeably). "Performance" should mean "how well the alternative chemical serves the same function as the incumbent."
    - Step 4 refers sometimes to "others" (in the diagram) as identifying that an alternative exists and elsewhere to an "authoritative body" (in the text). Stick with the term "authoritative body" and provide examples of such groups.
    - Define what "close" means in "price that is close to the current."
    - Define what "application of interest" means.
- Need to include citations for:
    - Cousins et al. 2019
    - Environmental Protection Agency (EPA)'s Design for the Environment Program (EPA, 2011)

Please reach out to us if you have questions regarding our comments. We look forward to the next draft of the "feasible and available" criteria and our continued work together on iPCBs.

Sincerely,

/s/

David Darling, Riaz Zaman, Scott Braithwaite
ACA