



June 2, 2015

Comments submitted to the Chartered SAB via email to Thomas Carpenter

Public statement from Nancy Beck, PhD, DABT, on behalf of the American Chemistry Council, to the Chartered Science Advisory Board regarding the Chemical Assessment Advisory Committee (CAAC) review of the Draft Trimethylbenzene (TMB) IRIS Assessment.

Good Afternoon.

I am providing remarks today on behalf of the American Chemistry Council (ACC). We have closely followed the CAAC review of the TMB assessment and are pleased to have an opportunity to present brief comments to inform your review. Our understanding is that your role is to comment on the quality of the CAAC report and determine whether it should be approved, returned for further work, rejected, or reconstituted in a completely new Panel.

While the CAAC report provides some very helpful and necessary comments on the general structure of the TMB assessment, it falls short in the most important area—achieving consensus. The most important reason IRIS assessments go to the SAB for review is because the quantitative values developed are used to inform regulatory decisions. IRIS values are used not only by EPA but also by other government agencies, including state and international bodies; thus the quantitative values are critical. In its draft report, the TMB panel has been unable to reach consensus in six important areas, five of which feed directly into the quantitative values. As the role of the chair is to seek consensus,¹ we believe the TMB report falls well short of meeting the consensus goal. ACC has read many SAB reports related to IRIS assessments and this is the first time we have seen a report that falls this short in reaching consensus in so many important areas.

¹ See the SAB 2012 guidance “Serving on the EPA Science Advisory Board”, which states at page 6: “**Role of the Chair: Seeking Consensus** Advisory committees and panels are structured to include a range of disciplines and technical points of view relevant to the charge. At times, panel members may reach different conclusions based on a review of available scientific data. The chair takes the lead in identifying areas of agreement and in helping members talk through issues in contention. Consensus recommendations and conclusions are most helpful to the agency. However, when there is disagreement among experts, that information is also valuable to note. In most cases, different views can be accommodated within the committee’s report. On rare occasions, a member may request that a minority report be appended to the report.”

Consensus is not achieved in the following areas:

- 1) **Adequacy of Responses to Public Comments.** As noted on page 14, “The TMB Review Panel was divided, however, on the adequacy of the responses and the advisability of the dispositions that were made as presented in the summary.” A key role of the CAAC was to provide comments on EPA’s response to public comments. It is disappointing that no consensus was reached regarding this important charge question.
- 2) **Role of the C-9 Fraction.** As noted on page 14, there were “a variety of views on the role the C-9 fraction should have in the assessment.” While general consensus could not be reached, the CAAC did conclude that there is value to considering the C-9 mixtures along with data on related alkylbenzenes to inform gaps in the TMB database. Informing data gaps is indeed an important role, however the C-9 fraction testing data could be used for much more (e.g., to help inform adverse effect levels). Without consensus it is likely that the available data will be used only to inform data gaps.

This is unfortunate, particularly considering the determination made by the EPA Office of Pesticide Programs in its 2014 final rule exempting C-9 Rich Aromatic Hydrocarbons from tolerance requirements (79 Fed. Reg. 57805, September 26, 2014). This rule is an EPA final agency action and included a thorough review of the toxicity of C-9 hydrocarbons, including TMB. Despite being brought to the CAAC panel’s attention multiple times, not only has this rule not been discussed by the panel, it is not mentioned in the report, not even in Section 3.2.2 where additional references are recommended to EPA.

The CAAC report should be returned to the panel to explain why it has ignored the public comments it received, in particular those related to this EPA final rule. Discussion of this rulemaking and its scientific basis would likely have helped the CAAC panel achieve consensus in this important area.

- 3) **Reversibility of Pain Sensitivity Data.** As noted on page 14 and elsewhere, “There was also disagreement among the TMB Panelists related to the interpretation of the pain sensitivity data, with some members questioning whether the document adequately examined the question of reversibility following termination of exposure, which further bears on whether ongoing or repeated exposures to TMBs should be deemed to have accumulating toxicity beyond effects evident in shorter-term exposure; other panel members believed that the data were consistent with cumulative toxicity and lack of reversibility.” Whether or not this endpoint is reversible is critical information that must be provided when used as the basis of an RfC. This is also particularly important if the

same endpoint will be used for a sub-chronic RfC. A lack of consensus on this endpoint and its relevance for long term effects is a critical shortcoming of the report.

- 4) **Lack of Consensus in the Interspecies Uncertainty Factor (UF_H).** As noted on page 27, one panel member did not agree with the use of a UF_H of 10 for the RfC's for 1,2,4-TMB and 1,2,3-TMB and suggested it should be 3. The CAAC noted that these same comments apply to the derivation of the RfD's for 1,2,4-TMB and 1,2,3-TMB. Due to the important nature and impact that UFs have on the final IRIS values, the report should be returned to the panel for further discussion to reach consensus on this topic.
- 5) **Lack of Consensus in the Subchronic to Chronic Uncertainty Factor (UF_s).** As noted on page 28, again one panel member did not agree with the use of a UF_s of 3 for the RfC's for 1,2,4-TMB and 1,2,3-TMB and suggested that it be 10. The CAAC noted that these same comments apply to the derivation of the RfD's for 1,2,4-TMB and 1,2,3-TMB. Due to the important nature and impact that UFs have on the final IRIS values, the report should be returned to the panel for further discussion to reach consensus on this topic.
- 6) **Lack of Consensus in the Database Uncertainty Factor (UF_d).** As noted on page 28, regarding the RfC values for 1,2,4-TMB and 1,2,3-TMB, "The TMB Panel was divided on whether the UF_D should be 3, as selected by the agency, or 10." The CAAC noted that these same comments apply to the derivation of the RfD's for 1,2,4-TMB and 1,2,3-TMB. The lack of consensus appears to be tied to the lack of consensus regarding the utility of the C-9 fraction. Due to the important nature and impact that UFs have on the final IRIS values, the report should be returned to the panel for further discussion to reach consensus on this topic.

The lack of consensus in these important areas has a critical impact on recommendations regarding the quantitative RfC and RfD values. Due to the importance of the quantitative values, the report should not be approved in its current state. To help facilitate consensus, we recommend adding two new co-chairs to the CAAC panel. These co-chairs should have expertise in neurotoxicity and general risk assessment.

Finally, as noted previously, any final report should explain why the CAAC has ignored the public comments it received, in particular those related to the EPA final rule exempting C-9 Rich Aromatic Hydrocarbons from tolerance requirements. Discussion of this rulemaking and its scientific basis would likely have helped the CAAC panel achieve consensus in at least two important areas.

Thank you again for the time and energy you have put into reviewing the CAAC report. I would be happy to answer any questions.