Toxics Use Reduction Institute Science Advisory Board Meeting Minutes

November 18, 2020

Virtual Zoom Meeting

12:00 PM

Members Present: Dave Williams (Chair), Robin Dodson (Vice Chair), Christy Foran, Christine Rioux, Heather Lynch, Denise Kmetzo, Rich Gurney, Amy Cannon, Lisa Cashins, Helen Poynton, Wendy Heiger-Bernays

Members not present:

Program staff present: Liz Harriman (TURI), Heather Tenney (TURI), Hayley Byra (TURI), Michael Ellenbecker (TURI), Pam Eliason (TURI), Hardiesse Dicka-Bessonneau (MassDEP), Tiffany Skogstrom (OTA), John Raschko (OTA), Caredwen Foley (OTA), Molly Jacobs (Lowell Center), Paridhi Patel (UML RA), Marcela Rojas Vasques (OTA Intern), Sandy Baird (MassDEP)

Others present: Katherine Robertson (MCTA), Carol Holahan (Foley Hoag ACC), Trisha McCarthy (Coyne PC for ACC), Margaret Gorman (ACC), Harry Hechehouche (ACC), Matt Taylor (Dupont), Emily Reed (Stateside Associates), Keith Hostetler (Toxicology Regulatory Services, representing QAC manufacturers), Dave Jones (ADBAC ISC), Robert Holden (Stateside), Ken Littel (Mason, Stepan & Lonze Quat Manufacturers), Kate Sande (EcoLab), Kuper Jones (ACC)

Welcome & Introductions

TURI Staff introduced the two new SAB board members, Lisa Cashins and Helen Poynton. Lisa is a Certified Industrial Hygienist (CIH) at the Department of Labor and Standards. Helen is an Associate Professor of Ecotoxicology and Undergraduate Program Director in the School for the Environment at UMass Boston. Additionally, the new Liaison from MassDEP, Sandra Baird, was introduced. Sandra is a Toxicologist with MassDEP Office of Research and Standards.

Each name or phone number showing on Zoom was called out and all attendees introduced themselves and their association. Visitors were asked to then mute and use the chat function, which TURI monitored, thereafter.

Approve September 30th Meeting Minutes

A motion was made to approve the September meeting minutes. The motion was seconded and a roll call vote was taken. The minutes were approved with ten approvals, and one abstention.

Program Updates

TURI Staff gave an update on the program. Coming up this week, the first ad hoc committee meeting will be held, tomorrow November 19th. Additionally, there is a public hearing on the addition of the 172 TRI PFAS to the TURA list on Friday. Details on this and additional program activities can be found in the "TURA Program Update" handout.

Nanomaterials Presentation by Mike Ellenbecker

Michael Ellenbecker, ScD, CIH presented information on carbon nanotubes and nanofibers. The intent was to provide a brief overview for the board. Mike's **presentation** has been added to the TURI website.

A board member asked what the process is for defining what the board does next. In this instance, TURI needs the board to respond to the petition. The petition asks to list single walled and multi walled carbon nanotubes, and carbon nanofibers. The Board's job is to review whether the science supports that. The scope could be narrowed or broadened by the board during their review, based upon the science.

A board member asked if different health effects were seen in other routes of exposure. While the most frequently studied exposure route is inhalation, there are studies on dermal and other routes; these will be included in the SAB review.

A board member noted that the petition recommends that the program add CNTs and CNFs as a group, rather than make recommendations on individual substances. The board will have to look at the science and decide how best to approach a recommendation.

Quaternary Ammonium Compounds (QACs): DDAC, ADBAC

TURI staff reviewed EHS Summaries and the available information for substances: Didecyl Dimethyl Ammonium Chloride (DDAC) and Alkyl Dimethyl Benzyl Ammonium Chloride (ADBAC). Materials were received from industry stakeholders after the submission deadline, and are on the LibGuide for next meeting. Representatives from these stakeholder groups were given the opportunity to summarize some of this information and also provided feedback on information presented to the board.

The Board indicated interest in the following information:

Additional ecotoxicity information, perhaps in ECHA submissions.

Incident reports

Reports of reproductive/endocrine effects

Use and exposure

Mechanism for immunostimulation

Overall functional mechanism, e.g., is it membrane disruption or mitochondrial disfunction?

TURI will look for additional information on those items and members will review information provided by industry that is on the LibGuide for the next meeting.

Members of the Quaternary Ammonium Compounds industry groups offered their perspective and some additional information:

It was noted that the Luz 2020 review paper states that QACs are a “direct acting irritant”.

The MOA is not published and there are many Quaternary Research Group studies that are not published. Birth defects research is expected soon.

Acute ecotoxicity is well established, they are biodegradable, but adsorb onto sediments.

Immune research by Hrubec and Melin is preliminary and is in vitro.

It was noted that final versions of the EPA Work Plans are now available.

The ECHA Summaries and EPA Registration Eligibility Decision (RED) documents are good sources of information.

Veterinary Health Europe was noted as a good source of information for reproductive and developmental endpoints.

Many studies are for the concentrates, as opposed to end use diluted solutions. It was noted that the AOEC used a single published study for their asthmagen determination.

TURI will follow up on these questions and comments. Information provided by these industry groups has already been added to the LibGuide for the next meeting.

New Member Training

TURI Staff provided a new member training covering some basics about TURA and the TURA goals, information about the SAB membership and past projects and decisions, open meeting rules and guidance regarding conflicts of interest.

Next Meeting

TURI Staff suggested the week of January 11th, but will send out a doodle poll for best availability.

Adjourn

Handouts

All handouts were posted on the TURI website prior to the meeting.

- DRAFT September Meeting Minutes
- TURA Program Update
- Draft PFAS Policy Analysis

Nanomaterials

- Petition for Nanomaterials

Quaternary Ammonium Compounds

- EPA 2016: ADBAC Preliminary Work Plan
- EPA 2016: DDAC Preliminary Work Plan
- EPA 1988: Clustering of Quaternary Ammonium Compounds
- Draft DDAC EHS Summary
- Draft ADBAC EHS Summary
- Anderson 2016: Evaluation of the irritancy and hypersensitivity potential following topical application of DDAC
- Gonzalez 2013: Asthma among workers in healthcare setting: role of disinfection with quaternary ammonium compounds
- Hrubec 2017: Ambient and Dosed Exposure to Quaternary Ammonium Disinfectants Cause Neural Tube Defects in Rodents

- Luz 2020: Human health hazard assessment of quaternary ammonium compounds: Didecyl dimethyl ammonium chloride and alkyl (C12-C16) dimethyl benzyl ammonium chloride
- Melin 2016: Quaternary ammonium disinfectants cause subfertility in mice by targeting both male and female reproductive processes

Chat Box Conversation (inserted verbatim without attribution from zoom chat)

From TURA Representative to Everyone: 12:25 PM

Here is the announcement of the Ad Hoc Committee meeting, with the agenda and meeting materials: https://www.mass.gov/event/november-19-2020-meeting-of-the-tura-program-strengthening-ad-hoc-committee-2020-11-19t150000

From TURA Representative to Everyone: 12:28 PM

TURA Program Strengthening Ad Hoc Committee Members List: https://www.mass.gov/doc/ad-hoc-committee-members/download

From Visitor to Everyone: 01:31 PM

To follow up on the comment, since nanomaterials are not even chemistry-specific, how will industry know?

From TURA Representative to Everyone: 01:32 PM

I think there are SOME CAS #s for CNTs, but not nearly for all.

From TURA Representative to Everyone: 01:46 PM

These documents and other supporting materials that are publicly available are on the meeting web page:

https://www.turi.org/Our_Work/Policy/Toxics_Use_Reduction_Act/Councils_and_Committees/TURA_Science_Advisory_Board/All_Meeting_Minutes/All_Meeting_Minutes/November_18_2020

From Visitor to Everyone: 01:48 PM

Were the reported deaths associated with normal use or improper use?

From SAB Board Member to Everyone: 01:51 PM

Similar question - A human health “incident” - poison control reports and case reports with specificity about use?

From TURA Representative to Everyone: 01:51 PM

There is quite a lot of variation - and only a few involve deaths - these are incident reports.

From TURA Representative to Everyone: 01:56 PM

I have to hop to another meeting. Thanks to all!

From Visitor to Everyone: 02:03 PM

In is my understanding that TURA's mission is to incentivize industry to reduce the use of chemicals by instituting a process and assessing a fee. The recommendation imposes a burden on industry in that it is the folks who have to assess whether they are used and how to reduce use even if the intent of listing is to kickstart a process. If the purpose of this is to get Massachusetts businesses out of the business of responding to a demand for quat-based products, that should be made clear.

From SAB Board Member to Everyone: 02:07 PM

FYI re: DDAC ECHA profile: https://echa.europa.eu/registration-dossier/-/registered-dossier/5864/1

From SAB Board Member to Everyone: 02:27 PM

Worth noting for the users (or other source of increased demand) that, with a membrane-based mechanism of action, quats would not be effective against a virus.

From Visitor to Everyone: 02:36 PM

Thanks for the opportunity to be a part of this

From SAB Board Member to Everyone: 02:37 PM

I have to jump off to to go pick up my daughter! Thanks everyone!

From TURA Representative to Everyone: 02:39 PM

have to run! have a good day!

From Visitor to Everyone: 03:03 PM

waves

From SAB Board Member to Everyone: 03:18 PM

Must go to the next meeting. Great to see you all - thank you!