AGENDA
FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT
SCIENTIFIC ADVISORY PANEL
OPEN MEETING
December 4, 6-7, 2018

FIFRA SAP Website https://www.epa.gov/sap
Docket https://www.regulations.gov
Docket No. EPA–HQ–OPP–2018-0517

U.S. Environmental Protection Agency Conference Center
Lobby Level One Potomac Yard (South Bldg.) 2777 S. Crystal Drive
Arlington, VA 22202

Peer Review on Evaluation of a Proposed Approach to Refine the Inhalation Risk Assessment for Point of Contact Toxicity: A Case Study Using a New Approach Methodology (NAM)

TUESDAY, DECEMBER 4, 2018

Please note that all times are approximate (see note at end of agenda).

9:00 AM **Meeting Opening and Administrative Procedures** – Shaunta Hill-Hammond, Ph.D., Designated Federal Official, Office of Science Coordination and Policy, EPA

9:10 AM **Introduction of Panel Members** – Robert Chapin Ph.D., Chair of the FIFRA SAP

9:20 AM **Welcome and Opening Remarks –** Stanley Barone Jr., M.S., Ph.D., Acting Director, Office of Science Coordination and Policy, EPA and Richard Keigwin, Director, Office of Pesticide Programs, EPA

9:30 AM **Agenda Review** – Robert Chapin Ph.D., Chair of the FIFRA SAP

9:35 AM **Introduction** - ***Evaluation of a Proposed Approach to Refine Inhalation Risk Assessment for Point of Contact Toxicity: A Case Study Using a New Approach Methodology (NAM)*** **-** Dana Vogel, Director, Health Effects Division, Office of Pesticide Programs, EPA

9:50 AM ***Evaluation of a Proposed Approach to Refine Inhalation Risk Assessment for Point of Contact Toxicity: A Case Study Using a New Approach Methodology (NAM)*** – Monique Perron, Sc.D., Health Effects Division, Office of Pesticide Programs, EPA

10:45 AM Break

10:55 AM **Evaluation of a Proposed Approach to Refine the Inhalation Risk Assessment for Point of Contact Toxicity: A Case Study Using a New Approach Methodology (NAM). A Source to Outcome Approach for Inhalation Risk Assessment of Chlorothalonil** - Dr. Doug Wolf, Senior Technical Leader, Dr. Sheila Flack, Technical Expert, Dr. Alex Charlton, Technical Expert and Dr. Paul Hinderliter, Technical Expert. Syngenta Crop Protection, LLC, Product Safety

11:55 AM **Lunch**

1:05 PM **Evaluation of a Proposed Approach to Refine the Inhalation Risk Assessment for Point of Contact Toxicity: A Case Study Using a New Approach Methodology (NAM). A Source to Outcome Approach for Inhalation Risk Assessment of Chlorothalonil -** Dr. Doug Wolf, Senior Technical Leader, Dr. Sheila Flack, Technical Expert, Dr. Alex Charlton, Technical Expert and Dr. Paul Hinderliter, Technical Expert. Syngenta Crop Protection, LLC, Product Safety

2:45 PM **Break**

2:55 PM **Public Comments –**

A relevant and reproducible 3D in vitro model of human airway epithelia for inhalation toxicological testing of chemicals - Song Huang, Ph.D., Chief Scientific Officer, Epithelix Sàrl

3:35 PM **Panel Deliberations – Charge question 1**

Please comment on the biological understanding of the irritation caused by exposure to contact irritants, such as chlorothalonil, via the inhalation route and how this understanding informs the applicability of the in vitro testing considered in the EPA's issue paper. As part of its submission (MRID 50610402 and summarized in Section 2.2.4 of the Agency's issue paper), Syngenta has provided a biological understanding of the irritation resulting from chlorothalonil exposure. This includes an adverse outcome pathway where epithelial cell damage occurs from initial respiratory exposure to chlorothalonil and causes cell death. Following repeated exposure, the repeated cell death results in a metaplastic response and differentiation of respiratory epithelium into stratified squamous epithelium.

5:05 PM **Recap** – Robert Chapin Ph.D., Chair of the FIFRA SAP

5:15 PM **Recess** – Shaunta Hill-Hammond, Ph.D., Designated Federal Official

WEDNESDAY, DECEMBER 5, 2018

*The FIFRA SAP meeting is in **RECESS** until **THURSDAY, DECEMBER 6, 2018** due to the Government closure.*

THURSDAY, DECEMBER 6, 2018

U.S. Environmental Protection Agency Conference Center
Lobby Level One Potomac Yard (South Bldg.) 2777 S. Crystal Drive
Arlington, VA 22202

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9:00 AM **Meeting Opening** – Meeting Opening and Administrative Procedures – Shaunta Hill-Hammond, Ph.D., Designated Federal Official, Office of Science Coordination and Policy, EPA

9:10 AM **Introduction of Panel Members** – Robert Chapin Ph.D., Chair of the FIFRA SAP

9:20 AM **Agenda Review** – Robert Chapin Ph.D., Chair of the FIFRA SAP

9:25AM **Panel Deliberations – Charge question 2**

Please comment on the strengths and limitations of using the in vitro test systems to evaluate a variety of membrane and cell damage endpoints (transepithelial electrical resistance, lactate dehydrogenase release, and resazurin metabolism) as markers of cellular response as described in MRID 50317702 and summarized in Section 2.2.4 of the EPA's issue paper. Please include in your comments a consideration of the study design and methods, appropriateness of the selected measures, robustness of the data, and sufficiency of reporting.

10:55 AM **Break**

11:05 AM **Panel Deliberations – Charge question 3**

Please comment on the strengths and limitations of using the CFD model results to calculate cumulative deposition, including the assumptions and calculations made to account for polydisperse particle sizes as discussed in the EPA's issue paper. A CFD model for the upper airway of a human was used in the proposed approach to determine surface deposition of discrete particle sizes

(monodisperse) in regions of the respiratory tract and adjusted for amount of active ingredient as described in MRID 50610403 and summarized in Section 2.2.3 of the Agency's issue paper. Since operators are exposed to distributions of particle sizes (polydisperse), percent contributions of each discrete particle size were calculated based on a particle size distribution derived for operators applying liquid formulations and used to determine cumulative deposition in each region of the respiratory tract as described in MRID 50610402 and summarized in Section 2.2.5 of the Agency's issue paper.

12:35 PM **Lunch**

1:55 PM **Panel Deliberations – Charge question 4**

Please comment on the calculation of the human equivalent concentrations. Human equivalent concentrations were calculated for operators applying liquid formulations in the proposed approach using the benchmark dose level from the in vitro measurements and the cumulative deposition as described in MRID 50610402 and summarized in Section 2.2.5 of the Agency's issue paper.

3:25 PM **Break**

3:35 PM **Panel Deliberations – Charge question 5**

The proposed approach to refine inhalation risk assessments for contact irritants has been presented with chlorothalonil as a proof of concept. Please comment on the strengths and limitations of using this proposed approach for chlorothalonil and other contact irritants, as well as its potential to be used for other chemicals that cause portal of entry effects in the respiratory tract.

5:05 PM **Clarifying Comments**

5:25 PM **Recap** – Robert Chapin Ph.D., Chair of the FIFRA SAP

5:35 PM **Recess** – Shaunta Hill-Hammond, Ph.D., Designated Federal Official

FRIDAY, DECEMBER 7, 2018

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Arlington, VA 22202

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9:00 AM **Meeting Opening**–Meeting Opening and Administrative Procedures – Shaunta Hill-Hammond, Ph.D., Designated Federal Official, Office of Science Coordination and Policy, EPA

9:10 AM **Introduction of Panel Members** – Robert Chapin Ph.D., Chair of the FIFRA SAP

9:20 AM **Agenda Review** – Robert Chapin Ph.D., Chair of the FIFRA SAP

9:25 AM **Panel Deliberation Summary** – Robert Chapin Ph.D., Chair of the FIFRA SAP

10:45 AM **Break**

10:55 AM **Panel Deliberation Summary** – Robert Chapin Ph.D., Chair of the FIFRA SAP

12:15 PM **Closing Remarks** – Robert Chapin Ph.D., Chair of the FIFRA SAP

12:30 PM **Adjourn** – Shaunta Hill-Hammond, Ph.D., Designated Federal Official

As noted above, please be advised that agenda times are approximate; when the discussion for one topic is completed, discussions for the next topic will begin. For further information, please contact the Designated Federal Official for information regarding this meeting, Dr. Shaunta Hill-Hammond, via email:hill-hammond.shaunta@epa.gov.