

US EPA ARCHIVE DOCUMENT

1-26-95 MSMA List B



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JAN 26 1995

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MEMORANDUM

**SUBJECT:** Monosodium methanearsonate (MSMA); Disodium methanearsonate (DSMA); Cacodylic acid (CA). Outcome of the 12/19/94 meeting of the HED Metabolism Committee.

**FROM:** Christina B. Swartz, Chemist  
Reregistration Section II

and

Bonnie Cropp-Kohlligian, Chemist  
Reregistration Section I

Chemistry Branch II: Reregistration Support  
Health Effects Division (7509C)

**THRU:** William J. Hazel, Ph.D., Section Head  
Reregistration Section II

and

Paula A. Deschamp, Section Head  
Reregistration Section I

Chemistry Branch II: Reregistration Support  
Health Effects Division (7509C)

**TO:** HED Metabolism Committee  
Health Effects Division (7509C)

**A. Individuals in Attendance:**

- 1. HED Metabolism Committee (signatures indicate concurrence unless otherwise stated).

Richard Schmitt



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Karl Baetcke

Karl Baetcke

Richard Loranger

Richard Loranger

2. Scientists: (Non-committee members responsible for data preparation)

Christina Swartz

Christina Swartz

Bonnie Cropp-Kohlligian

Bonnie Cropp-Kohlligian

Steve Malish

Steve Malish

3. Metabolism Committee Members in Absentia:

Reto Engler

Reto Engler

Michael Metzger

Michael Metzger

George Ghali

George Ghali

Alberto Protzel

Alberto Protzel

B. Material Reviewed:

Monosodium methanearsonate (MSMA) and cacodylic acid (CA) plant and animal metabolism studies were summarized for the committee members. MSMA and CA were the residues identified in plants and animals dosed with radiolabeled MSMA. CA was the only residue identified in plants and animals dosed with radiolabeled CA.

C. Questions posed to Committee members:

Does the HED Metabolism Committee concur with the following conclusions/courses of action?

- The residues of concern (i.e. those that should be included in the tolerance expression and are of toxicological concern) associated with the use of MSMA and DSMA are MSMA and CA. [This conclusion is based on the low rate or lack of demethylation, and on the inability to distinguish between background As and arsenic resulting from pesticidal use].
- In order to confirm that demethylation is not a significant metabolic pathway for MSMA, the registrant must submit "radiovalidation" data from the metabolism studies using a total arsenic method, as well as develop and provide radiovalidation data for a method capable of quantitating MSMA and CA

separately.

- Based on TRR values in tissues from ruminant and poultry metabolism studies, and on 1X feeding levels, there is no reasonable expectation of detectable MSMA residues in livestock tissues, milk and eggs resulting from the currently registered uses. Residues in livestock resulting from application of MSMA to cotton can be classified under Category 3 of 40 CFR §180.6(a); feeding studies in ruminants and poultry will not be required.
- The residue of concern (i.e. that which is of toxicological concern and requires regulation) associated with the use of cacodylic acid is cacodylic acid, *per se*.

**Note:** For consistency, residues of CA and MSMA resulting from use of MSMA/DSMA and CA would continue to be calculated as  $As_2O_3$ .

## CONCLUSIONS

The HED Metabolism Committee concurred with the conclusions/courses of action listed above, assuming that the registrant confirms that there is no significant demethylation of MSMA/DSMA.

cc: CSwartz; MSMA List B Reregistration File; MSMA SF; Cacodylic Acid List B Reregistration File; Cacodylic Acid SF; RF; HED Metabolism Committee; L. Edwards (CBRS/HED); Barbara Briscoe (SRRD/7508W).

7509C:CSwartz:CBRS:CM2:RM804F:703 305 5877:12/21/94  
RDI:WJHazel:12/22/94 MSMetzger:12/27/94 EZager:12/27/94