METHODS COMMITTEE REPORTS

Committee on Pesticides and Disinfectant Formulations

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Committee Actions

The Committee agreed to identify and recommend to the Official Methods Board (OMB) that all Official Methods of Analysis (OMA) Chapter 7 First Action methods from the year 2000 and older be made Final Action methods.

The Committee agreed to meet via teleconference on a monthly basis beginning in October 2006. These teleconference Committee meetings are open to all interested parties.

The Committee initiated a plan to identify, prioritize, and upgrade with modifications, the methods in OMA Chapter 7 with current column technology.

General Referee Reports

Collaborative International Pesticides Analytical Council (CIPAC) Studies, Warren Bontoyan (Acting)

The following liquid chromatography (LC) methods were accepted as full CIPAC methods: Azadirachtin A (TC and EC), deltamethrin, fenhexamid, nicosulfuron, picloram, pyraclostrobin, and spinosad. The following gas chromatography (GC) methods were accepted as full CIPAC methods: Diflubenzuron and methoprene.

Pesticide Formulations: Insecticides, Synergists, and Repellent, Khanh Nguyen

General Referee Khanh Nguyen, Wellmark International, 12200 Denton Dr, Dallas, TX 75234, Tel: 972-888-8595, Lab: 800-699-8599, Fax: 972-888-8524, E-mail: khanh.nguyen@wellmarkinc.com or khanh.nguyen@central.com.

OMA-2005-May-012 Bifenthrin in Technical Materials and Pesticide Formulations.—Study Director Edward Kikta, FMC Corp., PO Box 8, Princeton, NJ 08543-0008, Tel: 609-951-3640, Fax: 609-951-3835, E-mail: edward_kikta@fmc.com. Awaiting Study Director's manuscript revisions. Continue study.

Pesticide Formulations: Herbicides, James Daft

General Referee James Daft, U.S. Food and Drug Administration, 11630 W. 80th St, Lenexa, KS 66214-3340, Tel: 913-752-2165, E-mail: james.daft@fda.hhs.gov.

Reports in scientific journals show successful LC/MS/MS determination of herbicides in various commodities and products. This application is relatively expensive compared to GC and LC with traditional detectors. Yet its low-level capacity could make it a standard determinative method of the near future. Also, a pesticide sales report at the U.S. Environmental Protection Agency (EPA), Office of Pesticide Programs Website shows herbicides accounted for 37% of the 5 billion pounds of agrochemicals (herbicides, insecticides, fungicides, and other) sold worldwide during 2000–2001. Herbicides accounted for 44% of the total spending then. Listed alphabetically, the herbicides most commonly applied in the United States for all markets then (agriculture, industry, home and garden) were 2,4-D, acetochlor, alachlor, atrazine, benefin, DCPA, dicamba, dimethenamid, diuron, EPIC, glyphosate, MCPP, metolachlor(s), MSMA, pendimethalin, propanil, simazine, sulfosate, triclopyr, and trifluralin.

(1) *A-2/OMA-2004-May 04: Hydrazine in Maleic Hydrazide Formulations*.—Study Director Anthony Riggs,

Crompton Corp., PO Box 1120, 120 Huron St, Guelph, Ontario N1H 6N3, Canada, Tel: 519-822-33790, Fax: 519-763-5045, E-mail: tony.riggs@chemtura.com. Awaiting Study Director revisions. Continue study.

(2) ***2004.09*** *Maleic Hydrazide (MH) in Technical and Pesticide Formulations*.—Study Director Anthony Riggs. Study completed and granted Official First Action in 2004. Manuscript was published (*J. AOAC Int.* (2006) **89**, 929–936). Continue study.

Pesticide Formulations: Fungicides and Rodenticides, Lynda Podhorniak

General Referee Lynda Podhorniak, U.S. Environmental Protection Agency, 701 Mapes Rd, Fort Meade, MD 20755-5350, Tel: 410-305-2926, E-mail: Podhorniak.lynda@epa.gov.

A review of EPA pesticide registrations reveal 754 registered products for the category of fungicides and 15 registered products for the category of rodenticides.

A review of the AOAC methods in Chapter 7, Pesticide Formulations, Subchapter 3, Fungicides, has the following needs: new methods for aldicarb, benomyl, and carbaryl; method modification of the GC methods, fluometuron, pirimicarb, and thiocarbamates to use newer capillary columns. Method modifications are needed for the HPLC methods anilazine, bendiocarb, carbofuran, methiocarb, propoxur, thiodicarb, and triadimefon to newer column dimensions. Study Directors are needed to lead these efforts. Contact Lynda Podhorniak (*see* above) if interested.

Disinfectant Formulations, Tom Phillips

General Referee Tom Phillips, State Chemist Section, Maryland Department of Agriculture, 50 Harry S. Truman Pkwy, Annapolis, MD 21401, Tel: 410-841-2713, E-mail: phillitd@mda.state.md.us.

A survey was conducted for disinfectant products containing phenolics that are currently registered in Maryland through the Section's registration database and Kelly Systems.

One-hundred thirty-four products were registered with the section ranging in composition from <1% (41%) to >50% total phenolics (7%). With respect to other actives, 49% had no additional actives, 34% had an alcohol added, 10% had quaternary ammonium compounds (QACs), 5% had aldehydes, and 2% had other actives.

From this information, at least 2 collaborative studies will be considered. One study with products containing <50% phenolics will be analyzed by HPLC-UV and GC-FID. The second study will be for disinfectants containing QACs and other actives with detection technique to be determined.

Preliminary HPLC work indicates that the phenolics are linear from a range of 0.013 to 0.500 mg/mL. The next step will be to analyze samples from the marketplace to develop an efficient extraction step. Extension of the linear range will also be examined.

A Study Director is being solicited. Contact the above named General Referee or Adrian Burns at 410-305-2927 for assistance with methodology and collaborators.