## **CIPAC STATUS REPORT**

#### 05/12/2009



### 0651 Mefenpyr-diethyl

Allocated to D

CIPAC methods published in:

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CIPAC 51th meeting, June 2007 in Umhlanga Rocks, South Africa

Mr Feyerabend presented the results on a small-scale DAPA ring trial on the determination of mefenpyr-diethyl, a safener, in the TC, and OF, EW, EC, and WG formulations. Two draft CIPAC methods supplied by Bayer CropScience were tested for the determination of mefenpyr-diethyl. The one method, namely AM003404FP1, used for determining mefenpyr-diethyl in the TC, involves reversed phase HPLC, a UV spectral photometric detector, and the use of a certified external standard. The other method, namely AM002804FF3, is used to determine mefenpyr-diethyl in formulated products, using normal phase HPLC, a UV spectral photometric detector at 225 nm, and external standard calibration.

Seven laboratories participated. The following samples and reference items were sent to the participants: Mefenpyr-diethyl AE, WG, Sekator (Formulation 1), (Solvesso 200 ND) (Formulation 2), Fenoxaprop-P-ethyl + Mefenpyr-diethyl EW, Ralon (Formulation 3), Fenoxaprop-P-ethyl + Mefenpyr-diethyl EC 120 (Formulation 4).

It was mentioned that there would be no need to test two identical TC's if the TC is of high purity, but when a wider range in TC purity occurs, then it would be worth testing the two TCs. This quite robust method met the Horowitz criteria. Thus, when applied to the technical active substance and to the formulations, the two HPLC methods which were tested in this DAPA collaborative trial gave results within the usually accepted range of variations for technical substance, WG, OF, EW and EC formulations. It is recommended to go ahead with this method into a full-scale CIPAC collaborative trial.

**CIPAC** 52th meeting, June 2007 in Braunschweig

Mr Martin Feyerabend presented the results of a full-scale collaborative study on the determination of mefenpyr-diethyl in the TC, using RP HPLC and UV detection at 300 nm (Part A). and normal phase HPLC for the determination of mefenpyr-diethyl in the EC, EW, OD, and WG formulations, using external standardisation and UV detection at 227 nm (Part B). The samples had to be homogeneously melted at ca. 80°C.

Samples were sent to 17 laboratories, but only 16 provided data. For all groups, the reproducibility relative standard deviation  $RSD_R$  was clearly below the Horwitz criterion. Therefore no elimination of outliers was applied to the final statistical evaluation. In the description of the sample preparation, in the dilution scheme there was an error, which was observed by the laboratories, and should be changed in the final version. As an identity test, the UV spectrum was recommended by the company.

It was recommended to accept this HPLC method (parts A and B) as a provisional CIPAC method for the determination of mefenpyr-diethyl in the TC and the formulations tested.

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<u>Decision:</u> The reversed phase HPLC method (CIPAC/4627/A) for the determination of mefenpyrdiethyl in TC, and the normal phase HPLC method (CIPAC/4627/B) for the determination of mefenpyr-diethyl in WG, OD, EW and EC formulations was accepted as **provisional** CIPAC method, subject to correction of the calculation in the method description.

#### **CIPAC** 53<sup>rd</sup> meeting, June 2009 in Sonsonate/El Salvador

The reversed phase HPLC method (CIPAC/4627/A) for the determination of mefenpyr-diethyl in TC, and the normal phase HPLC method (CIPAC/4627/B) for the determination of mefenpyrdiethyl in WG, OD, EW and EC formulations was accepted as a **full** CIPAC method. (The calculation in the method description should be corrected).