CIPAC STATUS REPORT

22/09/2018

0733 zeta-Cypermethrin

Allocated to

CIPAC methods published in:

CIPAC

CIPAC 62nd meeting, June 2018 in Panama City

Peer validation for the quantitative identity test for zeta-cypermethrin by Mrs Mary Ellen McNally (5143, 5144)

Mrs McNally presented the results of a study which described a chiral method which can distinguish zeta cypermethrin, in conjunction with CIPAC 332, from other cypermethrin blends. The chiral method consisted of HPLC analysis based on a HiChrom® Chiral D-PGC (25 cm x 4.6 mm, df 5 μ m) column, elution with a flow rate of 1.0 ml/min of 1,2-dichloroethane/hexane 0.91% (v/v), UV detection at 280 nm, and quantification based on a methyl benzoate internal standard. Two laboratories participated in the study and specificity, linearity, precision and accuracy were determined. During the study no interferences at the retention times of the 1R trans alpha S and 1S trans alpha R isomers was encountered proving the specificity of the method. Precision and accuracy was proven with recoveries around 100% and RSDs <2% for both isomers. Statistical evaluation resulted in no Cochran or Grubbs stragglers or outliers and all results complied fully to the Horwitz criteria.

The organizers consider this method to be acceptable to move into a CIPAC trial.

1

No comments were received from the meeting.

Closed Meeting:

Mr Bura will contact Mrs McNally as it is not clear whether FMC would like to propose the method as a quantitative method and go for a full scale trial or as a stereospecific identity test to be used with the existing CIPAC method 332. It was clarified that the intention of the method is to use it in conjunction with CIPAC method 332 to determine the S-isomer ratio of zeta-cypermethrin in zeta cypermethrin technical samples.

CIPAC 0733