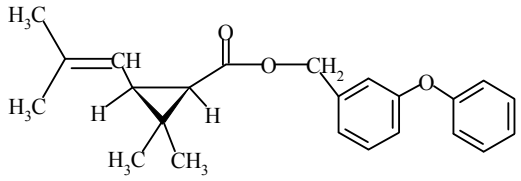
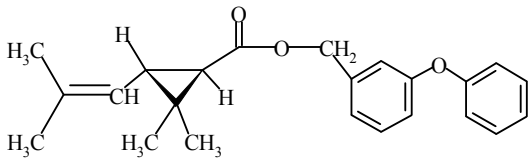
CIPAC STATUS REPORT

01/07/2005



(1R)-cis-



(1R)-trans-, >75%

0777 *d*-Phenothrin

Allocated to J

CIPAC methods published in:

CIPAC L, p. 96

CIPAC 24th meeting, May 1980 in Salobrena

Not allocated, ask Japan

CIPAC 27th meeting, July 1983 in Brisbane

Allocated to JAPAC

CIPAC 28th meeting, October 1984 in Baltimore

Mr Horiba explained that two kinds of methods were available, the one determining total phenothrin, the other determining the separate isomers. The latter method was very complicated because it involved hydrolysis to chrysanthenum acid which was thereupon esterified to the d- and l- 2-octylesters. HPLC with chiral column loading might also be used. The disomers of phenothrin were more active. The main use was in public health but it was also used in stored products. The main feeling was that because of the difference in activity between the isomers the method should separate them, at least in the case of the technical product.

CIPAC 29th meeting, September 1985 in Copenhagen

Although the main use is as a household insecticide, phenothrin is also used in stored products. JAPAC should be asked if they are prepared to do something.

CIPAC 30th meeting, June 1986 in Vienna

Mr Beckmann said that the compound was widely used in Australia. There were several isomers in varying ratios. In addition racemization occurred during analysis. The only solution was the use of chiral columns. Mr Bailey would discuss the possibilities with ICI. Phenothrin was also produced by Sumitomo. The compound had been allocated to GB.

CIPAC 31st meeting, June 1987 in Cascais

JAPAC reported that only the disomer would be produced. The compound was allocated to Japan.

CIPAC 46th meeting, June 2002 in Rome

Dr Furuta presented a report of the small-scale study of the capillary GC method for the determination of d-phenothrin in technical material. It was agreed the method could go to full collaborative study.

CIPAC 48th meeting, June 2004 in Brno

Ms. Furuta presented the results of a collaborative study on two technical materials, and three liquid phases of aerosol using capillary GC, FID and m-terphenyl as internal standard. Twelve laboratories participated in the study. Two stragglers and one outlier were identified. None of the outliers or strugglers was eliminated. JAPAC proposed the method to be accepted as provisional CIPAC method.
Mr. Hill found a comment from one of the laboratories useful. It concerned the control of interference between the compound and the internal standard. It should be an item for future methods.

Decision The capillary GC method (CIPAC/4361) for determination of d-Phenothrin in TC and aerosol formulations was accepted as **provisional** CIPAC method with the following remark: The sample preparation in part (c) page 5/7 from "Cool the aerosol container, .evaporate the dissolved gas completely" was not included in the sample preparation by the collaborators who took part in the collaborative study. Rather the liquid phase of aerosols was provided to collaborators from which weighed portions were taken for analysis, thus potentially removing some of the variance associated with the method as applied to aerosol cans.

CIPAC 49th meeting, June 2005 in Utrecht

The meeting was reminded that last year, the GC-FID method on TC and aerosols was accepted as provisional CIPAC method with the following remark: The sample preparation in part (c) page 5/7 from "Cool the aerosol container "evaporate the dissolved gas completely" was not included in the sample preparation by the collaborators who took part in the collaborative study. Rather the liquid phase of aerosols was provided to collaborators from which weighed portions were taken for analysis, thus potentially removing some of the variance associated with the method as applied to aerosols cans.
It was decided to promote the method to full CIPAC method provided that the company will first provide the required information. It was decided to allocate a new CIPAC number to the compound. (which is 777)
Decision The capillary GC method (CIPAC/4361) for determination of *d*-phenothrin in TC and aerosol formulations was accepted as **full** CIPAC method with the following remark: The sample preparation in part (c) page 5/7 from "Cool the aerosol container, evaporate the dissolved gas completely" was not included in the sample preparation by the collaborators who took part in the collaborative study. Rather the liquid phase of aerosols was provided to collaborators from which weighed portions were taken for analysis, thus potentially removing some of the variance associated with the method as applied to aerosol cans.