

CIPAC MT STATUS REPORT

13.08.2005

MT 189 Free a.i. in microencapsulated lambda cyhalothrin formulations

Allocated to GB

CIPAC methods published in:

CIPAC L, p. 137

CIPAC 46th meeting, June 2002 in Rome

Mr Seymour presented the results from a pilot study to determine the release rate of lambda-cyhalothrin and the 'free AI' present. It was reported it was important to control rolling rate, temperature, solvent composition and the diameter of the bottle used. Formulations with slow and fast release profiles were considered. The method was able to differentiate 'good' from 'poor' formulations for both free AI and release rate. The results indicated that the agitation mechanism was also a key parameter and must be gentle and reproducible otherwise there is risk of capsule rupture. It was confirmed the method was applicable only to lambda-cyhalothrin slow release formulations.

CIPAC 47th meeting, June 2003 in Bucharest

Mr. Parker presented a CIPAC collaborative study on the method of measurement of the release properties and "free a.i." in CS formulations for public health applications of lambda-cyhalothrin. Data were available from a total of 14 laboratories each of which tested 4 formulations. Each formulation was tested 4 times with 2 independent replicate samples being tested on each of 2 separate days. 4 measurements were recorded on each sample: Free AI and three release property measurements taken at 15, 30 and 180 minutes.

Two laboratories were completely eliminated from the evaluation of results due to significant deviation from the test protocol (use of rollers of much slower speed). It was noted that one laboratory had used a rotary evaporator instead of a roller and still received satisfactory results but that was not recommended for future use. Mr. Hill commented that it appears to be a good method for a wide range of capsules for the free a.i. determination but not so much for assessing the release rate.

Decision The method for the determination of the "free a.i." in microencapsulated lambda cyhalothrin formulations was accepted as **provisional** CIPAC method.

CIPAC 48th meeting, June 2004 in Brno

Decision The method for the determination of the "free a.i." in microencapsulated lambda cyhalothrin formulations was accepted as **full** CIPAC method.