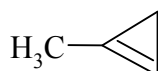


CIPAC STATUS REPORT

30/10/2015



0767 1-methylcyclopropene

Allocated to

CIPAC methods published in:

CIPAC

CIPAC 52nd meeting, June 2008 in Braunschweig

Mr Bura presented the principles of the method to show that the method is also applicable in a regulatory laboratory, too. A very similar method is used for the two relevant impurities of the a.i., that must also be analysed. A request was made for volunteers in the forthcoming collaborative trial. It was mentioned that the company is willing to provide participating laboratories with the column and the airtight glassware.

CIPAC 53rd meeting, June 2009 in Sonsonate/El Salvador

Mr Dennis Verona presented the results of a full-scale collaborative study on the determination of 1-methylcyclopropene in the VP (vapour releasing product) using capillary GC-FID and a CP-PoraBOND Q column. The results of all 13 participating laboratories have been taken into account for the statistical evaluation.

The RSD_R value exceeded the Horwitz $RSD_{R(Hor)}$. However, given the unusual nature of the VP formulation, and the procedural difficulties encountered applying test methodology to a gaseous a.i. (encapsulated reactive gas), it may be that the Horwitz value is not realistic in this case. It was proposed to accept the method as a provisional CIPAC method for the determination of 1-methylcyclopropene in SmartFresh™ 3.3% Technology. Explanation was requested concerning the selection of the column. It was explained that this column was the only one which could meet all the requirements needed for this special analysis. The opinion of the participants to the trial was that the method is applicable in the laboratories without complications.

Decision: The capillary GC method (CIPAC/4669) for the determination of 1-methylcyclopropene in the SmartFresh 3.3% vapour-releasing product was accepted as a **provisional** CIPAC method.

1-CMP and 3-CMP in 1-MCP

Mr Dennis Verona presented the results of the peer validation for the determination of 1-methylcyclopropene impurities in SmartFresh™ 3.3% Technology by capillary gas chromatography. Three lots of SmartFresh™ 3.3% Technology with a range of 1-CMP and 3-CMP concentrations were sub sampled and distributed to four independent laboratories. The laboratories prepared each sample in duplicate and chromatographed each preparation twice under the conditions of the method. Mean and %RSD were calculated for each sample from the analytical results. The reproducibility was evaluated from the interlab %RSD. The %RSD calculated over the four laboratories is <20% for both 1-CMP and 3-CMP in all three samples and on that basis the reproducibility was considered acceptable.

In conclusion, the proposed capillary GC method is considered appropriate for the determination of 1-chloro-2-methylpropene and 3-chloro-2-methylpropene in the formulation SmartFresh™ 3.3% Technology.

Decision: The capillary GC method for the determination of the relevant impurities 1-CMP and 3-CMP in 1-MCP formulations (CIPAC/4667) was noticed and adopted.

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CIPAC 54th meeting, June 2010 in Ljubljana

Decision: The capillary GC method (CIPAC/4669) for the determination of 1-methylcyclopropene in the SmartFresh 3.3% vapour-releasing product was accepted as a provisional CIPAC method in 2009.

Further information about results from another laboratory had been submitted from the company – these data still did not meet the Horwitz criteria but only data from 2 labs. Remains provisional. Need feedback from laboratories conducting this work.

CIPAC 55th meeting, June 2011 in Beijing

At the 54th meeting, 2010 in Slovenia it was agreed that the method should remain provisional as further feedback was required from laboratories using the method. The company have contacted the Secretary to ask if there was anything else they could do to or was there any more information they could provide to CIPAC to ensure the method was promoted to full. The meeting considered that there is not any more real information CIPAC asks for. The method is difficult and uses specific equipment - therefore there needs to be more experience gained. The method is not routinely used and for that reason until more experience is gained it should remain provisional. It will remain on the agenda to see if any more information is received.

Decision: The capillary GC method (CIPAC/4669) for the determination of 1-methylcyclopropene in the SmartFresh 3.3% vapour-releasing product remains as a **provisional** CIPAC method.

CIPAC 56th meeting, June 2012 in Dublin

At the 54th meeting, 2010 in Slovenia it was agreed that the method should remain provisional as further feedback was required from laboratories using the method. The method is difficult and uses specific equipment - therefore there needs to be more experience gained. The method is not routinely used and for that reason until more experience is gained it should remain provisional. It will remain on the agenda to see if any more information is received.

No new information has been received there the meeting agreed the situation remains as stands.

Decision:

The capillary GC method (CIPAC/4669) for the determination of 1-methylcyclopropene in the SmartFresh 3.3% vapour-releasing product remains as a **provisional** CIPAC method.

CIPAC 57th meeting, June 2013 in Kyiv

At the 54th meeting, 2010 in Slovenia it was agreed that the method should remain provisional as further feedback was required from laboratories using the method. The method is difficult and uses specific equipment - therefore there needs to be more experience gained. The method is not routinely used and for that reason until more experience is gained it should remain provisional.

No new information has been received there the meeting agreed the situation remains as stands.

Decision:

The method **remains provisional.** The meeting also agreed that discussion of 1-MCP should be removed from the agenda until further data are received.

CIPAC 59th meeting, June 2015 in Athens

Mr Hänel reported that the data set of GC method (CIPAC/4669) for the determination of 1-methylcyclopropene in the SmartFresh 3.3% vapour-releasing product contained faulty calculations. After recalculation, the RSDR values were slightly above the Horwitz values, and it was discussed and concluded that this can be regarded as acceptable in this particular case.

Decision: As a consequence, the method can be accepted as **full CIPAC method.**