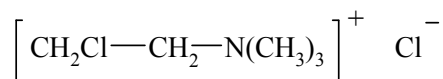


# CIPAC STATUS REPORT

28/06/2005



## 0143 Chlormequat

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Allocated to D  
CIPAC methods published in:

CIPAC D, p. 39 (titr.)  
CIPAC H, p. 77 (ion chromatographic)

**CIPAC** 23rd meeting, June 1979 in Baltimore

Allocated to D

**CIPAC** 24th meeting, May 1980 in Salobrena

5 Methods of analysis have been collected. PACGB can go on with the work, however DAPA should be kept informed.

**CIPAC** 25th meeting, June 1981 in Gembloux

German Progress Report: A nonspecific method (argentometric titration of organic chlorine) is available, but before starting a collaborative study, DAPA would like to clarify whether CIPAC will accept a nonspecific method in this case. The formulations which are on the German market are very simple and containing active ingredient and water.

### Discussion

The GBPanel has been looking for candidate methods (CIPAC 2912/R). The best method seemed to be a HClO<sub>4</sub> titration and determination of free and total chlorine. DAPA has available an argentometric method (CIPAC 2975/R). It was questioned whether these methods were specific enough. It was suggested to look into HPLC method with an ion exchange column or with ion pair chromatography. The detection might give problems. An additional TLC method could also enhance specificity. Dr. Kotarski will send his TLC method to DAPA. The compound is allocated to Germany. GB has great interest because there are many manufacturers.

**CIPAC** 26th meeting, May 1982 in Rome

DAPA had conducted a small scale study with an argentometric method (CIPAC/3058/m,R) and collaborative work could start. Dr Povlsen asked if choline chloride could also be determined. The content thereof could be determined by subtraction. Mr Lovett would check if the method could be used on GB formulations. Mr Declercq remarked that BASF had a HPLC method (NH<sub>2</sub> column) with RI detection. Dr Beckmann suggested that a TLC method might be useful.

**CIPAC** 27th meeting, July 1983 in Brisbane

German (DAPA) progress report: It was necessary to modify the argentometric method. An additional collaborative study by DAPA was therefore carried out. A report (CIPAC/....) is presented. Concerning the discussion during the 26th CIPAC meeting this method was compared with HPLC and TLC methods. The last ones seem to be more difficult and less accurate.

**CIPAC** 28th meeting, October 1984 in Baltimore

Dr Dobrat reported that a report of a collaborative would be presented next year (CIPAC/3180).

# CIPAC STATUS REPORT

28/06/2005

**CIPAC** 29th meeting, September 1985 in Copenhagen

Mr Dobrat reported the results of a collaborative study (CIPAC/3262) with an argentometric method. An identity test was available and would be added to the final version of the method (remark: The identity test is already part of the method CIPAC/3263). One of the samples had contained choline chloride in addition. Mr Declerque asked if a HPLC method had been tried. This had been done but the method was difficult to handle. A corrosive eluent had to be used and it was difficult to stabilize the system.

Decision The argentometric method for the determination of chlormequat in aqueous solutions, CIPAC/3263, was adopted as provisional CIPAC method. Because of lack of specificity, the method would not be promoted to a full method.

**CIPAC** 37th meeting, June 1993 in Paris

Mr Dobrat reported that a HPLC method with ion conductivity detection will be tested in a preliminary study by DAPA.

**CIPAC** 38th meeting, July 1994 in Annapolis

Mr Dobrat reported that a HPLC method with ion conductivity detection had been tested in a preliminary study by DAPA. The results had shown that the method had a lack of robustness. The trial will be repeated with another column. Mr. Declercq was interested to participate in the preliminary work.

**CIPAC** 39th meeting, May 1995 in Limassol

Mr Dobrat mentioned that for the CIPAC collaborative study on a HPLC method with ion conductivity detection samples were sent to 11 participants.

**CIPAC** 40th meeting, May 1996 in Beijing

Mr Pawliczek presented the results of a CIPAC study with a HPLC method with ion chromatography on a strong cation exchange column and conductivity detection, without chemical suppression and with external calibration for chlormequat technical and SL formulations, CIPAC/3899. Five different samples had been tested, 10 laboratories sent their results. One lab also sent results from an electrophoresis method, but this method couldn't separate the impurities. The statistical results were good, the Horwitz values were acceptable.

On a question of Mr. Køppen whether a refractive index detector could be used, Mr Pawliczek answered that it was not possible.

Decision The ion chromatographic method for chlormequat technical and solutions, CIPAC/3898, has been accepted as provisional CIPAC method.

**CIPAC** 41st meeting, June 1997 in Roskilde

Decision The provisional ion chromatographic method for chlormequat technical and solutions, CIPAC/3898, has been accepted as full CIPAC method.