

Annex 9 Project presentation document

Added by AG
10/2016

(to be submitted with working papers submitted for consideration by the Expert Group
or subcommittee concerned)

PROPOSAL FOR NEW WORK ON «*TITLE OF ACTIVITY*» (to be completed)

“Development of the Method for Determination of Volatile Compounds in Spirituous Beverages of Viti-Vinicultural Origin using contained ethanol as a reference substance”

1. Initiator of the Proposal

(According to Article 20 of the Internal Rules, it may be one or more Member States, the Director General, the Scientific and Technical Committee, the Executive Committee, the General Assembly)

.....the Scientific and Technical Committee / Sub-Commission Methods of Analysis...+.....Member State..

..... **Federal Republic of Germany**

2. Purposes and the scope of the resolution or the collective expertise document *(Specify the objectives of the project.*

In the case of an oenological practice, thank you also to fill the presentation sheet annexed coming issued from the resolution CST 356-2011 – Annex 10)

...The objectives of the project are listed below :

1. To develop a method of direct quantitation of volatile compounds in spirituous beverages of viti-vinicultural origin)
2. To implement a robust and reliable method that can be used as a standard reference method for analysing volatile compounds in spirituous beverages of viti-vinicultural origin

3. Relevance and timeliness *(Specify the need and the requirements to develop a draft resolution on a collective expertise document)*

Determination of the principal volatile substances of spirit drinks of viti-vinicultural origin is performed on gas chromatographs with a flame ionization detector in accordance with OIV-MA-BS-14: This document was adopted on the basis of the results of an Interlaboratory Study conducted in 1999 (Kelly et. al., Journal of AOAC International, V. 82, No. 6, 1999. Quantitative calculation of the mass concentration of the analyzed volatile compounds is carried out according to the traditional method of internal standard (IS). This method has such disadvantages as the need for a manual procedure for the quantitative introduction of an internal standard substance into the test sample of alcoholic beverages, an additional error due to pipetting of the internal standard.

These problems are solved by applying an innovative method of using ethyl alcohol, which is directly present in the tested samples of alcoholic products as an internal standard. The application of this innovation increases the reliability of the measured data, eliminates the need to use a manual procedure for the quantitative introduction of an internal standard substance into the test sample, the values of the mass concentration of volatile compounds are immediately obtained in the required dimension of grams per hectoliter of anhydrous ethanol.

- a) ⁵ Article 20 of internal rules: A request to add an item to the agenda of a group of experts of a Sub-Commission, in accordance with the Strategic Plan approved by the General Assembly, may be made:
- By one or more scientific delegates from the relevant group of experts or Sub-Commission. Where a scientific delegate requests to add an item to the agenda the expert will make a declaration to the President of the Expert Group or Sub-Commission if is a situation of actual or potential conflicts of interest.
 - The information is mentioned in the minutes of the meeting.
 - By the Director General
 - By the Scientific and Technical Committee
 - By the Executive Committee
 - By the General Assembly

It is important to note the following fact. Around the clock, millions of liters of alcoholic beverages are produced around the world. Thousands of test laboratories around the world daily perform mandatory determination of the quantitative content of volatile compounds in manufactured food products containing ethyl alcohol. Tests of alcoholic products are performed on gas chromatographs. All registered chromatograms show an ethanol peak. This peak of ethyl alcohol can and should be used as an internal standard in calculations to determine the quantitative content of the studied volatile compounds in the tested samples of alcoholic products.

It is surprising, but the authors have not yet been able to find in the available sources of information, whether scientific publications or regulatory documents, any mention of the use of the detector response to the recorded ethanol peak in the chromatogram of the tested sample of alcoholic beverages in calculating the quantitative content of volatile components.

Validation, confirmation of the suitability of the proposed method, can be performed in the laboratory on the basis of experimental data obtained during the testing of alcoholic products in accordance with the current technical regulations, without using any additional material, financial and labor costs. No additional measurements.

The results of the theoretical and numerous experimental studies performed have undergone rigorous international peer review and have been published in journals with a high impact factor. The results of interlaboratory studies with international participation of the method were presented in the form of an oral report and published (doi.org/10.1051/bioconf/20191502030) in the proceedings of the 42nd Congress of Vine and Wine.

The time has come to initiate official Interlaboratory Study for the recognition of the method at the interstate and international level.

4. Main aspects to be covered (*Specify the aspects to be covered by the project* The projects will cover the aspects given below:

1. A collaborative Interlaboratory Study performance of the method for quantitation of volatile compounds in spirituous beverages of viti-vinicultural origin according to the OIV Protocol for design, conducts and interpretation of collaborative studies (Resolution Oeno 6/2000) will be conducted.
2. All laboratories will be supplied with standard solutions and real alcoholic samples for gas chromatographic measurements.

5. Relevance to the OIV strategic objectives (*Please refer to the OIV Strategic Plan 2020-2024* The project is relevant to the strategic objectives of OIV given below in the OIV Strategic Plan 2015-2019?:

The forth strategic axis in the strategic plan is to pursue the development of a harmonised regulatory environment. And, under this axis drawing up recommendations relating to methods of analysis covers our proposed project objectives.

The objectives of OIV in the OIV Strategic Plan 2020-2024:

2. Establish the authenticity rules of vitivicultural products and promote good regulatory practices

d. Draw up recommendations relating to methods of analysis

- i. Study and develop methodologies that tend to guarantee product authenticity;
- ii. Study and develop analytical tools in the field of control and sensory analysis of vitivicultural products;
- iii. Harmonise methods for diagnosis and identification of vine diseases and pests
- iv. Regularly review and revise the methods and annexes in the OIV Compendium of International Methods of Analysis

6. Information on the relation between the proposal and other existing OIV documents or other international organisations

(Specify the corresponding work document(s) and if there are already existing international standards in the field

There is already worldwide used international official method for the determination of volatile compounds in spirits drinks approved by EU Commission*. An existing OIV document (OIV-MA-BS-14-R2009, COMPENDIUM OF INTERNATIONAL METHODS OF ANALYSIS OF SPIRITUOUS BEVERAGES OF VITIVINICULTURAL ORIGIN Determination of the principal volatile substances of spirituous beverages of viti-vinicultural origin) also describes the method approved by EU Commission. The theoretical background and application algorithm of the proposed method are very close to those described in the European regulation and OIV documents. The major difference between cited methods and the proposed one consists in employing ethanol, contained in spirituous beverages, as a reference substance.

*Commission Regulation (EC) N° 2870/2000 of 19 December 2000 laying down Community reference methods for the analysis of spirits drinks, OJEC of 29December 2000, L333/20 (latest consolidated version of 26.04.2016, method published in 2000R2870 — EN — 26.04.2016 — 002.001, pages 23-36).

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7. Identification of the requirement for and availability of expert scientific advice
(Specify if other structures of the OIV should participate in the development of the project.....

A group of experts is required to give scientific advice in the development of the project.

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8. Identification of any need for technical input to the standard from external bodies

There is no need for technical input to the standard from external bodies.

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9. Independence of the person drafting the document with regard the risk of a conflict interest

The person who prepared this document does not have the risk of conflicts of interest and undertakes to avoid their occurrence in every possible way.

**PART TO BE COMPLETED BY THE PRESIDENT OF THE EXPERT GROUP
OR SUB-COMMISSION**

10. Action from the first discussions

- Preliminary draft of resolution
- Collective expertise document

11. Relevance and evaluation of potential difficulties

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Proposed time-line for completion of the new work, including the start date and the proposed date for adoption by the General Assembly
A. In case of draft resolution

[Year]... Addition on the agenda of this activity [Year]... Acceptance by the group of experts on the integration of the project in the step procedure

[Year]... Draft resolution submitted for consideration at Step3

[Year]... Draft resolution submitted for consideration at Step5

[Year]... Possible adoption at Step 8 by the General Assembly

B. In case of collective expertise document

[Year]... Addition on the agenda of this activitySpecify a provisional timetable for finalising the document

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Specify the mode and means of publication of the document

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