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## Report

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## Preparation of one biological reference material for QUASIMEME inter-laboratory testing

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## Summary

290 tins of homogenized Mediterranean mussels (Q006-2) has been prepared for IVM, Free University, Amsterdam to be used in QUASIMEME interlaboratory studies of PCB/OCP, PAH and BFR analyses.

### 1. Introduction

The Institute for Environmental Studies has requested Wageningen IMARES to prepare 290 tins of homogenized Mediterranean mussels (Q006-2) before 15 July 2006 for the use in QUASIMEME interlaboratory studies (ILS) under contract 06.052. The details of the preparation are given in this report.

### 2. Objectives

- 290 tins of homogenized Mediterranean mussels (Q006-2) should be prepared

### 3. Materials and methods

#### 3.1 Production of material

About 100 kg of fresh mussels originating from the Mediterranean Sea (Spain) was purchased (Adri and Son) on 4 July 2006. After cooking the mussels for 3 minutes the shells were removed. Cooking and shell removal was performed on 5 July 2006. The next day, *i.e.* 6 July 2006, the material was minced, homogenised and sterilized in tins according to the procedure described below. Before processing, the material was stored in the refrigerator at 0°C. The material was coded as Q006-2

#### 3.2 Details on the procedure for production of materials

The complete volume of meat was minced using a mincer (Finis Machinefabriek, Ulf) in combination with a Fryma mill equipped with toothed rotary knives (Fryma Maschinen AG, Rheinfelden, Switzerland) to a final size of 3.5 mm<sup>2</sup>. Subsequently, ca. 20 kg sample was homogenised for 3 minutes, after adding 0.02% butylhydroxytoluene (BHT), in a Stephan cutter (Stephan Machines, Almelo, The Netherlands), type UMM/SK25 (made in 1979). Coated tins (Eurocan Food, Mechelen, Belgium, volume ca. 75 ml) were filled to the brim with homogenised material using a manual dosing machine (machinenfabrik Engler, Vienna, Switzerland). The tins were sealed by a Lanico TVM 335 sealing machine (Thomassen and Drijver, Deventer, The Netherlands).

The tins and jars were sterilised in a Muvero-Mat sterilizer (type 90E) for 45 minutes at 122 °C (pressure 1.4 bar, heating-time: 90 minutes, cooling time: 20 minutes).

### 4. Results and discussion

290 tins of homogenized Mediterranean mussels has been produced. The material was coded as Q006-2.

## 5. Conclusions

The biological reference material Q006-2 of 290 tins has been successfully prepared. It contains homogenized Mediterranean mussels. The homogeneity of the material was not tested and it should be done before the material can be used in the QUASIMEME interlaboratory study.

Signature:

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Date:

7 December 2006