**METHOD SPECIFICATION**

**Faculty of Biosciences, NMBU**

**Method name: Crude fat**

BIOVIT-no: Msp1045

1. **Method of analysis / Principle / Main instrument**

The SoxtecTM 8000 performs crude fat extraction from a wide range of sample types such as feed, cereals, meat, fish, dairy products, and other food products.

Fat is extracted using light petroleum as a solvent and the Randall modification of the Soxhlet

method. The sample is weight into cellulose thimbles and submerged in boiling solvent prior to rinsing in cold solvent, reducing the time needed for extraction. The solvent dissolves fats, oils, pigments and other soluble substances. The extract is then transferred from the cellulose thimbles to collection aluminum cups. The collection aluminum cups are then placed in a drying cabinet for 30 minutes at 103°C to evaporate the solvent. The resulting fat residue is determined gravimetrically after drying. This is a fast and straightforward method with low solvent consumption.

**Main instrument:** SoxtecTM 8000 (FOSS, Denmark)

**2. Reference and any modifications**

* Commission Regulation (EC) No 152/2009. 27 Jan 2009. Laying down the methods of

sampling and analysis for the official control of feed. Annex III, P, Official Journal of the

European Union L54 / 1 from 26/02/2009

* Determination of crude oils and fats - page 37 (PART H).

 - Application Note 310; Extraction of Crude Fat using Soxtec™ 8000 Extraction System

Modification: The Randall modification of the Soxhlet method. The sample is weight into cellulose thimbles and submerged in boiling solvent prior to rinsing in cold solvent, reducing the time needed for extraction.

**3. Requirements for the grinding and storage**

Dry samples must be grinded at 1 mm and stored at room temperature.

Liquid samples are stored in the refrigerator or freezer.

**4. Contact persons**

**Lab manager:** Hanne K. Hustoft

**Responsible for analysis:** Milena Bjelanovic

**5. Additional literature**

1. Application Note 310; Extraction of Crude Fat using Soxtec™ 8000 Extraction System (FOSS, Denmark).
2. Application Note 3991; Extraction of Crude Fat in Cream and Fresh Cheese (FOSS, Denmark).
3. Application Note 3481; Extraction of Crude Fat in Meat and Meat Products according to ISO 1444-1996 and AOAC 991.36 (FOSS, Denmark).