



Standard Operating Procedure

FoodLab Sample Preparation for Fats and Oils Analysis

Oils

Use as is.

Fats Solid at Room Temperature

Melt before analysis using the Bain-marie method

- 1/ Fat is placed in a clean and dry container
- 2/ Place the container over a simmering water bath and carefully remove (**caution HOT!**) when the fat is melted.
- 3/ Ensure the entire fat sample is melted and mixed to ensure a representative sample is taken for analysis.
- 4/ Use the positive displacement pipette to take the require sample volume to add to the test cuvette.

Cream

Cream can be tested on the Soaps method without any preparation.

For all other methods the fat must be extracted from the cream:

- 1/ Weigh 10g of Cream into a centrifuge tube.
- 2/ Add 2g of anhydrous sodium sulphate.
- 3/ Close the tube and mix well.
- 4/ Place in a centrifuge for 5 minutes at approx. 4000 - 5000 rpm
- 5/ Using a spatula remove the extracted fat to a clean vial and melt over a water bath as described above.
- 6/ Use the Acid. 5uL and Perox. 25uL curves for testing.

If required different quantities of cream can be used however keep the ratio of cream to anhydrous sodium sulphate the same, i.e. 5g of Cream to 1g anhydrous sodium sulphate.

Butter, Margarine and Semi-finished Fats

For all methods the fat must be extracted:

- 1/ Weigh 10g of sample into a centrifuge tube.
- 2/ Melt in a water bath.
- 3/ Add 2g of anhydrous sodium sulphate.
- 4/ Close the tube and mix well.
- 5/ Place in a centrifuge for 5 minutes at approx. 4000 - 5000 rpm
- 6/ Using a positive displacement pipette remove the extracted fat and add to the test cuvette.
- 7/ Use the Acid. 5uL and Perox. 25uL curves for testing.

If required different quantities of sample can be used however keep the ratio of sample to anhydrous sodium sulphate the same, i.e. 5g of butter to 1g anhydrous sodium sulphate.

DOCUMENT No.	FILENAME	AUTHOR	VERSION	REVISION DATE	PAGE NO.
SOP-018	FoodLab Sample Preparation for Fats and Oils Analysis	J. Duncan	1.0	29/04/2015	1 of 1