Name: _____ Group: _____ Date: _____

LAB 43
TECHNIQUE

DETECTING FATS

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Goal

Apply a technique to determine if a food or a solution contains fats.

Materials

- 2 test tubes (15 mm × 125 mm) and stoppers (No. 00)
- test-tube rack
- marker
- dropper bottle of distilled water
- dropper bottle of vegetable oil
- weighing pan containing Sudan IV particles
- spatula

Procedure

1. Number the test tubes 1 and 2 with the marker.
2. Add 20 drops of distilled water to test tube 1.
3. Add 20 drops of vegetable oil to test tube 2.
4. Add a few particles of Sudan IV to each test tube.
5. Stopper the test tubes tightly.
6. Shake the test tubes and set them aside for 2 minutes.
7. Observe the contents of the test tubes and record your observations.
8. Clean up and put away materials.

Results

Record your observations in the table below. Give the table a title.

Title:

Test tube	Substances in test tube	Observations

Name: _____ Group: _____ Date: _____

Reflecting on the lab technique

1. What indicator is used to detect fats?

_____

2. How is the presence of fats in a food or a solution confirmed using this indicator?

_____

_____

3. How is the absence of fats in a food or a solution confirmed using this indicator?

_____

_____

4. Is Sudan IV a hydrophilic substance or a lipophilic substance? Explain your answer.

_____

_____

5. Why is a test tube containing only distilled water and the indicator prepared?

_____

_____

6. Are the results you obtained conclusive? If not, what are the possible sources of error?

_____

_____