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AMENDMENT 1
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Animal and vegetable fats and oils — Determination of unsaponifiable matter —

Part 2: Rapid method using hexane extraction

AMENDMENT 1

*Corps gras d'origines animale et végétale — Détermination de la teneur en
matières insaponifiables —*

Partie 2: Méthode rapide par extraction à l'hexane

AMENDMENT 1



Reference number
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Foreword

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Amendment 1 to International Standard ISO 3596-2:1988 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 11, *Animal and vegetable fats and oils*.

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Add the following annex.

Annex A (informative)

Results of interlaboratory tests

A.1 Participation

Fourteen laboratories from six different countries (France, Germany, Hungary, Malaysia, Netherlands, United Kingdom) took part in a collaborative study organized by the Institut Des Corps Gras Centre Technique Industriel.

A.2 Samples

Three samples were provided:

- Sample A: crude sunflower oil;
- Sample B: crude palm oil;
- Sample C: crude tallow.

A.3 Results

Tables A.1, A.2 and A.3 give the results obtained by the laboratories for the three samples A, B and C. Table A.4 gives the statistical results, sample by sample.

Two laboratories were eliminated for sample A on basis of the Cochran (Laboratory 6) and Dixon (Laboratory 9) tests, one for sample C on basis of the Dixon test (Laboratory 11) and none for sample B.

The mean values for the unsaponifiable matter content for the three samples were between 0,15 % and 0,58 % (m/m).

Repeatability limits are about 0,06 % (m/m) and repeatability coefficient of variation values are between 3,6 % and 10,5 %.

Reproducibility limits are about 0,18 % (m/m) and reproducibility coefficient of variation values are between 9 % and 36 %.

Table A.1 — Sample A: Crude sunflower oil

Laboratory	Result 1 % (m/m)	Result 2 % (m/m)
1	0,56	0,58
2	0,541	0,545
3	0,51	0,52
4	0,62	0,58
5	0,57	0,63
6	0,78	0,61
7	0,54	0,51
8	0,64	0,62
9	0,89	0,89
10	0,54	0,57
11	0,62	0,64
12	0,6	0,63
13	0,68	0,68
14	0,56	0,52

NOTE

Laboratory 6 was eliminated on basis of the Cochran test (5 %).

Laboratory 9 was eliminated on basis of the Dixon test (5 %).

Table A.2 — Sample B: Crude palm oil

Laboratory	Result 1 % (m/m)	Result 2 % (m/m)
1	0,35	0,33
2	0,262 5	0,248 5
3	0,37	0,32
4	0,30	0,30
5	0,35	0,42
6	0,44	0,45
7	0,35	0,3
8	0,35	0,35
9	0,18	0,18
10	0,25	0,32
11	0,51	0,48
12	0,24	0,26
13	0,34	0,32
14	0,38	0,34