INTERNATIONAL STANDARD 3475

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Oil of aniseed

Huile essentielle d'anis vert

First edition — 1975-12-15

UDC 668.526

Ref. No. ISO 3475-1975 (E)

Descriptors : essential oils, anise, materials specifications.

Price based on 2 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3475 was drawn up by Technical Committee ISO/TC 54, *Essential oils,* and circulated to the Member Bodies in June 1974.

It has been approved by the Member Bodies of the following countries :

Belgium	India	Thailand
Bulgaria	Netherlands	Turkey
Czechoslovakia	Portugal	U.S.S.R.
Egypt, Arab Rep. of	South Africa, Rep. of	Yugoslavia
France	Spain	

No Member Body expressed disapproval of the document.

Printed in Switzerland

Oil of aniseed

1 SCOPE AND FIELD OF APPLICATION

This International Standard defines certain characteristics of oil of aniseed, with a view to facilitating the assessment of its quality.

2 REFERENCES

ISO/R 210, *Essential oils – Packing.*

ISO/R 211, *Essential oils – Labelling and marking containers.*

ISO 212, *Essential oils – Sampling.*

ISO/R 279, *Determination of the density and relative density of essential oils.*

ISO/R 280, *Determination of the refractive index of essential oils.*

ISO 592, *Essential oils – Determination of the optical rotation.*[1)]

ISO/R 875, *Determination of solubility of essential oils in ethanol.*

ISO 1041, *Essential oils – Determination of freezing point.*

3 DEFINITION

oil of aniseed : The oil obtained by steam distillation from the fruits of *Pimpinella anisum* Linnaeus.

4 SPECIFICATIONS

4.1 Appearance

Clear liquid or crystalline mass.

4.2 Colour

Colourless to pale yellow, when liquid.

4.3 Odour

Characteristic, recalling that of anethole.

4.4 Relative density at 20/20 °C

Minimum : 0,980

Maximum : 0,990

4.5 Refractive index at 20 °C

Minimum : 1,552 0

Maximum : 1,559 0

4.6 Optical rotation at 20 °C

Range $-2°$ to $+2°$

4.7 Solubility in 90 % (*V*/*V*) ethanol at 20 °C

The solubility in 90 % (*V*/*V*) ethanol at 20 °C shall be 1 volume in 3 volumes to give a clear solution.

4.8 Freezing point

Minimum : 15 °C

Maximum : 19,5 °C

5 SAMPLING

See ISO 212.

Minimum volume of final sample 50 ml.

6 METHODS OF TEST

6.1 Relative density at 20/20 °C

See ISO/R 279.

6.2 Refractive index at 20 °C

See ISO/R 280.

1) At present at the stage of draft. (Revision of ISO/R 592-1967.)

6.3 Optical rotation at 20 °C

See ISO 592.

6.4 Solubility in 90 % (*V*/*V*) ethanol at 20 °C

See ISO/R 875.

6.5 Freezing point

See ISO 1041.

7 PACKING, LABELLING AND MARKING

See ISO/R 210 and ISO/R 211.

International Standard 3486

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Wrought copper and copper alloys — Cold-rolled flat products delivered in straight lengths (sheet) — Dimensions and tolerances

Cuivre et alliages de cuivre corroyés — Produits plats laminés à froid livrés en longueurs droites (tôles) — Dimensions et tolérances

First edition — 1980-05-01

UDC 669.3-415 : 669-122.2 **Ref. No. ISO 3486-1980 (E)**

Descriptors : copper, copper alloys, cold rolled products, metal sheet, grades (quality), dimensions, dimensional tolerances, form tolerances.

Price based on 3 pages

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3486 was developed by Technical Committee ISO/TC 26, *Copper and copper alloys*, and was circulated to the member bodies in January 1978.

It has been approved by the member bodies of the following countries :

Australia	France	Romania
Austria	Germany, F.R.	South Africa, Rep. of
Belgium	India	Spain
Bulgaria	Iran	Sweden
Canada	Japan	Switzerland
Czechoslovakia	Mexico	Turkey
Denmark	Netherlands	United Kingdom
Egypt, Arab Rep. of	Norway	Yugoslavia
Finland	Poland	

The member body of the following country expressed disapproval of the document on technical grounds :

USA

Printed in Switzerland

Wrought copper and copper alloys — Cold-rolled flat products delivered in straight lengths (sheet) — Dimensions and tolerances

1 Scope and field of application

This International Standard specifies dimensions and tolerances of cold-rolled flat products (sheet) made from copper and copper alloys in accordance with clause 4.

For dimensions and tolerances of cold-rolled flat products in coils or on reels, see ISO 3487.

2 References

ISO 497, *Guide to the choice of series of preferred numbers and of series containing more rounded values of preferred numbers.*

ISO 1634, *Wrought copper and copper alloys — Rolled flat products (plate, sheet, strip) — Mechanical properties.*

ISO 3487, *Wrought copper and copper alloys — Cold-rolled flat products in coils or on reels (strip) — Dimensions and tolerances.*

3 Dimensions and tolerances

3.1 Thickness (see table 1)

Nominal thickness should be selected from the R''20 series of preferred numbers, in accordance with ISO 497.

For sheet with a width over 50 mm the measurement of thickness should be made at a distance greater than 10 mm from the edge.

Table 1 — Tolerances on thickness

Values in millimetres

Thickness		± Tolerances on thickness, for widths											
		⩽ 350			> 350 ⩽ 700			> 700 ⩽ 1 000			> 1 000 ⩽ 1 250		
>	⩽	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3
⩾ 0,1	0,2	–	0,020	0,03	–	–	–	–	–	–	–	–	–
0,2	0,3	0,020	0,025	0,04	0,03	0,03	0,06	–	–	–	–	–	–
0,3	0,5	0,025	0,030	0,05	0,035	0,04	0,07	0,05	0,05	0,10	0,06	0,07	0,12
0,5	0,8	0,030	0,040	0,06	0,04	0,05	0,09	0,06	0,07	0,12	0,07	0,09	0,15
0,8	1,2	0,035	0,050	0,08	0,05	0,06	0,12	0,07	0,09	0,15	0,09	0,11	0,18
1,2	1,8	0,050	0,060	0,10	0,07	0,08	0,15	0,09	0,11	0,18	0,11	0,13	0,21
1,8	2,5	0,060	0,080	0,12	0,09	0,10	0,18	0,11	0,13	0,21	0,14	0,15	0,24
2,5	3,2	0,07	0,10	0,15	0,10	0,12	0,21	0,13	0,15	0,24	0,17	0,18	0,28
3,2	4,0	0,09	0,12	0,18	0,12	0,14	0,24	0,15	0,18	0,28	0,20	0,21	0,32
4,0	5,0	0,12	0,14	0,21	0,14	0,17	0,28	0,17	0,21	0,32	0,23	0,24	0,36
5,0	7,0	–	0,17	0,24	–	0,20	0,32	–	0,24	0,36	–	0,27	0,40
7,0	10,0	–	0,20	0,28	–	0,23	0,36	–	0,27	0,40	–	0,30	0,45

3.2 Width

See table 2.

3.3 Length

See table 2.

Table 2 — Width and length tolerances for sheet (guillotined)

Values in millimetres

Thickness		Tolerances on width, for widths		Tolerance on length, for lengths
>	⩽	⩽ 350	> 350 ⩽ 1 250	⩽ 5 000
–	2	+ 2	+ 4	+ 10
2	5	+ 4	+ 6	+ 10
5	10	+ 8	+ 10	+ 10

3.4 Squareness of sheet

The diagonal distance between opposite corners of any sheet shall not differ by more than the values laid down in table 3, provided that the tolerances on width and length were met.

Table 3 — Squareness of sheet

Values in millimetres

Width		Maximum allowable differences between diagonals, for lengths		
>	⩽	> 1 000 ⩽ 2 000	> 2 000 ⩽ 3 000	> 3 000
350	700	6	7	8
700	1 250	8	9	10

4 Materials

For materials see table 4. Mechanical properties are given in ISO 1634.

Table 4 — Materials

Type	Designation
Coppers	Cu-ETP Cu-FRHC Cu-FRTP Cu-OF Cu-DHP
Alloyed coppers	CuAg0,05 CuAg0,1 CuAg0,05 (P) CuAg0,1 (P) CuAs (P)
Copper-zinc alloys	CuZn5 CuZn10 CuZn15 CuZn20 CuZn30 CuZn33 CuZn37 CuZn40
Copper-zinc-lead alloys	CuZn35Pb2 CuZn36Pb1 CuZn38Pb2 CuZn40Pb CuZn39Pb2
Special copper-zinc alloys	CuZn20Al2 CuZn28Sn1 CuZn38Sn1
Copper-tin alloys	CuSn2 CuSn4 CuSn6 CuSn8 CuSn10 CuSn4Zn4
Copper-aluminium alloys	CuAl5 CuAl8 CuAl8Fe3
Copper-nickel alloys	CuNi20 CuNi25 CuNi5Fe1Mn CuNi10Fe1Mn CuNi20Mn1Fe CuNi30Mn1Fe CuNi44Mn1
Copper-nickel-zinc alloys	CuNi18Zn20 CuNi18Zn27 CuNi15Zn21 CuNi12Zn24 CuNi10Zn27 CuNi10Zn28Pb1
Special copper alloys	CuSi3Mn1 CuBe1,7 CuBe2 CuCo2Be CuNi1Si CuNi2Si