INTERNATIONAL STANDARD

ISO 10349-9

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Photography — Photographic-grade chemicals — Test methods —

Part 9:
Reaction to ammoniacal silver nitrate

Photographie — Produits chimiques de qualité photographique — Méthodes d'essai —

Partie 9: Réaction au nitrate d'argent ammoniacal

Reference number
ISO 10349-9:1992(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10349-9 was prepared by Technical Committee ISO/TC 42, *Photography*.

ISO 10349 consists of the following parts, under the general title *Photography — Photographic-grade chemicals — Test methods*:

— *Part 1: General*

— *Part 2: Determination of matter insoluble in water*

— *Part 3: Determination of matter insoluble in ammonium hydroxide solution*

— *Part 4: Determination of residue after ignition*

— *Part 5: Determination of heavy metals and iron content*

— *Part 6: Determination of halide content*

— *Part 7: Determination of alkalinity or acidity*

— *Part 8: Determination of volatile matter*

— *Part 9: Reaction to ammoniacal silver nitrate*

— *Part 10: Determination of sulfide content*

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— *Part 11: Determination of specific gravity*

— *Part 12: Determination of density*

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Photography — Photographic-grade chemicals — Test methods —

Part 9:
Reaction to ammoniacal silver nitrate

1 Scope

This part of ISO 10349 specifies a general test method for the determination of the reaction to ammoniacal silver nitrate, for photographic-grade chemicals.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 10349. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10349 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 10349-1:1992, *Photography — Photographic-grade chemicals — Test methods — Part 1: General.*

3 Hazards

See ISO 10349-1 for general hazard warnings and for details of the hazard code system used in this part of ISO 10349.

4 Reagents

See ISO 10349-1 for general requirements.

4.1 Ammonium hydroxide solution, NH_4OH, $\rho \approx 0{,}91$ g/ml (DANGER: < C > < B >).

4.2 Ammoniacal silver nitrate

Thoroughly mix equal volumes of silver nitrate solution (100 g/l)[1] and ammonium hydroxide solution (4.1) (< C > < B >).

5 Apparatus

See ISO 10349-1 for requirements for glassware.

5.1 Two matched Nessler colour-comparison cylinders, each with a capacity of 50 ml.

6 Sampling

See ISO 10349-1.

7 Procedure

Weigh a test portion of 2,0 g ± 0,1 g and dissolve it in 40 ml of water. Transfer 20 ml of this solution to each of the two Nessler colour-comparison cylinders (5.1). Prepare a test solution by adding 10 ml of freshly prepared ammoniacal silver nitrate solution

1) This can be prepared from silver nitrate (DANGER: < C >).

(4.2) to one of the Nessler colour-comparison cylinders and mix well. Prepare a blank solution by adding 5 ml of the ammonium hydroxide solution (4.1) and 5 ml of water to the other Nessler colour-comparison cylinder and mix well. Allow the solutions to stand for 2 min. Compare the colour and turbidity of the two solutions.

Any colour or turbidity produced in the test solution shall not exceed that produced in the blank solution.

WARNING — After completing the test, immediately dispose of the test solution and excess reagent to prevent possible formation of explosive compounds (feather powder or silver azide).

8 Test report

The test report shall specify the method used and the test result obtained.

It shall also mention all operating details not specified in this part of ISO 10349, or regarded as optional, together with details of any incidents which may have influenced the test result.

The test report shall include all information necessary for the complete identification of the sample.