

INTERNATIONAL
STANDARD

ISO
417

Second edition
1993-04-15

**Photography — Determination of residual
thiosulfate and other related chemicals in
processed photographic materials —
Methods using iodine-amylose, methylene
blue and silver sulfide**

*Photographie — Détermination du thiosulfate résiduel et d'autres produits
chimiques dans les produits photographiques traités — Méthodes à
l'iode-amylose, au bleu de méthylène et au sulfure d'argent*



Reference number
ISO 417:1993(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 417 was prepared by Technical Committee ISO/TC 42, *Photography*.

This second edition cancels and replaces the first edition (ISO 417:1977), which has been technically revised. It now contains an iodine-amylose method which can generally be used with film and paper and which should be used with film and paper containing incorporated developing agents.

Annexes A, B, C, D, E and F of this International Standard are for information only.

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Introduction

This International Standard is one of a series of specifications on photographic processing. This International Standard may occasionally be used by individuals without a working knowledge of analytical chemistry. Hazard warnings have therefore been given using a system of symbols with letter codes designating the nature of the hazard. More detailed information regarding hazards, handling and use of these chemicals may also be available from the manufacturer.

Determination of residual thiosulfate and its decomposition products is of use in appraising the adequacy of washing and therefore the permanence of the silver image on photographic film, plates and paper. Inadequate washing can cause a loss in image density and the formation of stain in low-density areas. These deleterious effects are accelerated by improper storage conditions.

Determination of residual thiosulfate and related compounds, by itself, is not sufficient to insure the permanence of photographic records. Long-term or archival storage requires the proper attention to enclosure materials, storage environment, and the like. These considerations are specified in ISO 3897, ISO 5466, ISO 6051 and ISO 10602.