

First edition
2002-06-15

Corrected version
2003-06-15

**Photography — Processing chemicals —
Specifications for 4-(N-ethyl-N-2-
methanesulfonylaminoethyl)-2-
methylphenylenediamine sesquisulfate
monohydrate**

*Photographie — Produits chimiques de traitement — Spécifications pour
4-(N-éthyle-N-2-sulfonylaminoéthyle de méthane)-2-phénylénédiamine de
méthyle sesquisulfate monohydraté*

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Reference number
ISO 17531:2002(E)

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Published in Switzerland

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 General	2
3.1 Physical properties	2
3.2 Hazardous properties	2
3.3 Handling and storage.....	2
4 Requirements	2
5 Reagents and glassware	3
6 Sampling	3
7 Test methods	3
7.1 Assay	3
7.2 Identity test	4
7.3 Residue after ignition.....	5
7.4 Heavy metals content	5
7.5 Iron content.....	6
7.6 Volatile matter.....	6
7.7 Appearance of solution	6
7.8 Photographic-use test	6
Annex A (informative) Preparation of standard ammonium cerium (IV) hexantrate solution, $c[(\text{NH}_4)_2\text{Ce}(\text{NO}_3)_6] = 0,05 \text{ mol/l (27,41 g/l)}$.....	8

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 17531 was prepared by Technical Committee ISO/TC 42, *Photography*.

Annex A of this International Standard is for information only.

In this corrected version of ISO 17531, the following have been corrected:

- the lack of italicization of the symbol “N” in the main title and in a footnote;
- the definition of m in the equation of A.5;
- the non-italicization of the symbol for “concentration”;
- an incorrect reference to another International Standard in the Foreword;
- some minor typographical errors.

Introduction

This International Standard is one of a series that establishes criteria of purity for chemicals used in processing photographic materials. General test methods and procedures cited in this International Standard are compiled in ISO 10349-1.

This International Standard is intended for use by individuals with a working knowledge of analytical techniques, which may not always be the case. Some of the procedures utilize caustic, toxic, or otherwise hazardous chemicals. Safe laboratory practice for the handling of chemicals requires the use of safety glasses or goggles and, in some cases, other protective apparel such as rubber gloves, face masks or aprons. Normal precautions for the safe performance of any chemical procedure shall be exercised at all times, but specific details have been provided for hazardous materials. Hazard warnings designated by a letter enclosed in angle brackets, < >, are used as a reminder in those steps detailing handling operations and are defined in ISO 10349-1. More detailed information regarding hazards, handling and use of these chemicals may be available from the manufacturer.

This International Standard provides chemical and physical requirements for the suitability of a photographic-grade chemical. The tests correlate with undesirable photographic effects. Purity requirements are set as low as possible consistent with these photographic effects. These criteria are considered to be the minimum requirements necessary to assure sufficient purity for use in photographic processing solutions; however, if the purity of a commonly available grade of chemical exceeds photographic processing requirements and if there is no economic penalty in its use, the purity requirements have been set to take advantage of the availability of the higher quality material.

Every effort has been made to keep the number of requirements to a minimum. Inert impurities are limited to amounts that will not unduly reduce the assay. All tests are performed on samples "as received" to reflect the condition of materials furnished for use. Although the ultimate criterion for suitability of such a chemical is its successful performance in an appropriate use test, the shorter, more economical test methods described in this International Standard are generally adequate.

Assay procedures have been included in all cases where a satisfactory method is available. An effective assay requirement serves not only as a safeguard of chemical purity, but also as a valuable complement to the identity test. Identity tests have been included whenever a possibility exists that another chemical or mixture of chemicals could pass the other tests.

All requirements listed in clause 4 are mandatory. The physical appearance of the material and any footnotes are for general information only and are not part of the requirements.

Efforts have been made to employ tests that are capable of being run in any normally equipped laboratory and, wherever possible, to avoid tests that require highly specialized equipment or techniques. Instrumental methods have been specified only as alternative methods or alone in those cases where no other satisfactory method is available.

Over the past several years, great improvements have been made in instrumentation for various analyses. Where such techniques have equivalent or greater precision, they may be used in place of the tests described in this International Standard. Correlation of such alternative procedures with the given method is the responsibility of the user. In case of disagreement in results, the method called for in the specification ought to prevail. Where a requirement states "to pass test", however, alternative methods are not to be used.