
**Leather — Chemical tests for the
determination of certain azo colorants
in dyed leathers —**

**Part 1:
Determination of certain aromatic
amines derived from azo colorants**

*Cuir — Essais chimiques pour le dosage de certains colorants
azoïques dans les cuirs teints —*

*Partie 1: Dosage de certaines amines aromatiques dérivées des
colorants azoïques*

This document is a preview generated by EICS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2015

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 General	1
4 Principle	2
5 Safety precautions	3
6 Apparatus	3
7 Reagents	4
8 Sampling and preparation of samples	5
9 Procedure	5
9.1 Degreasing	5
9.2 Reductive cleavage	5
9.3 Liquid-liquid extraction	5
9.4 Check of the analytical system	6
10 Chromatographic analyses	6
11 Calibration	6
12 Evaluation	6
12.1 Calculation of amine in the sample	6
12.2 Reliability of the method	7
13 Test report	7
Annex A (informative) Chromatographic analyses	8
Annex B (informative) Reliability of the method	12
Annex C (informative) Assessment guide — Interpretation of analytical results	13
Bibliography	15

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

ISO 17234-1 was prepared by the Chemical Test Commission of the International Union of Leather Technologists and Chemists Societies (IUC Commission, IULTCS) in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, the secretariat of which is held by UNI, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement). This method is technically similar to the method in IUC 20, which was declared an official method at the IULTCS Delegates meeting on 31st May 2003 in Cancun, Mexico.

IULTCS, originally formed in 1897, is a world-wide organization of professional leather societies to further the advancement of leather science and technology. IULTCS has three Commissions, which are responsible for establishing international methods for the sampling and testing of leather. ISO recognizes IULTCS as an international standardizing body for the preparation of test methods for leather.

This second edition of ISO 17234-1 cancels and replaces the first edition (ISO 17234-1:2010), which has been technically revised to include two new aromatic amines from the Chinese Standard GB 20400 in [Table 1](#). The layout for this part of ISO 17234 has been re-arranged and updated to be the same as ISO 17234-2.

ISO 17234 consists of the following parts, under the general title *Leather — Chemical tests for the determination of certain azo colorants in dyed leathers*:

- *Part 1: Determination of certain aromatic amines derived from azo colorants*
- *Part 2: Determination of 4-aminoazobenzene*

Leather — Chemical tests for the determination of certain azo colorants in dyed leathers —

Part 1:

Determination of certain aromatic amines derived from azo colorants

1 Scope

This part of ISO 17234 specifies a method for determining the use of certain azo colorants which can release certain aromatic amines.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2418, *Leather — Chemical, physical and mechanical and fastness tests — Sampling location*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*

ISO 4044, *Leather — Chemical tests — Preparation of chemical test samples*

ISO 17234-2, *Leather — Chemical tests for the determination of certain azo colorants in dyed leathers — Part 2: Determination of 4-aminoazobenzene*

3 General

Certain azo colorants can release, by reductive cleavage of azo group(s), one or more of the following aromatic amines, which are listed in Appendix 8 of EU Regulation 1907/2006, Annex XVII of the European Parliament, and/or the Chinese Standard GB 20400-2006.

Table 1 — Aromatic amines listed in Appendix 8 of EU regulation 1907/2006, Annex XVII, and/or GB 20400-2006

No.	CAS number	Index number	EC number	Substances
1	92-67-1	612-072-00-6	202-177-1	biphenyl-4-ylamine 4-aminobiphenyl xenylamine
2	92-87-5	612-042-00-2	202-199-1	benzidine
3	95-69-2		202-441-6	4-chloro-o-toluidine
4	91-59-8	612-022-00-3	202-080-4	2-naphthylamine
5 ^a	97-56-3	611-006-00-3	202-591-2	o-aminoazotoluene 4-amino-2',3-dimethyla- zobenzene 4-o-tolylazo-o-toluidine
6 ^a	99-55-8		202-765-8	5-nitro-o-toluidine
7	106-47-8	612-137-00-9	203-401-0	4-chloroaniline