Canada Border Services Agency | Agence des services frontaliers du Canada

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Memorandum D11-12-1

Ottawa, November 27, 2015

NAFTA Harmonized Laboratory Methods

In Brief

1. The contact information in paragraph 8, paragraph 9 and Appendix B of this memorandum has been updated.
2. Appendix A has been updated to reflect the new methods that are being used :

   (a) Changes were made concerning the most recent method number and/or date

   (b) The following methods were deleted ISO 3932-1976, ISO 3933-1976, ASTM D1059-1992, ASTM D2101-1995, and ASTM D1233-1993.

This memorandum lists the laboratory methods which have been jointly accepted by the customs laboratories of Canada, Mexico, and the United States to achieve inter-laboratory consistency in the analysis of goods for customs purposes. Additional methods will be added to the list as agreement is reached by the laboratories of the three countries.

Guidelines and General Information

1. Article 906 of the North American Free Trade Agreement (NAFTA) requires the Parties to the Agreement, to the greatest extent possible, to make compatible their standards-related measures, so as to facilitate trade, and to promote the compatibility of a specific standard or conformity assessment procedure.

2. In 1993, the Heads of Customs Conference established the NAFTA Laboratory Working Group (LWG) to achieve greater technical co-operation and harmonization. One of the primary tasks of the LWG is to establish harmonized laboratory methods for analytical determinations made in the customs laboratories of the three countries.

3. The methods listed in Appendix A have been accepted by the customs laboratories of Canada, Mexico, and the United States for the purpose of determining the physical properties and chemical composition of goods required for classification within the Harmonized System and for other customs purposes.

4. For convenience of access, methods are listed according to the principal area(s) of application in relation to the chapters or headings of the Harmonized System.

5. This list does not prohibit the use of semi-quantitative or other methods. However when results are close to a critical value or when results are under dispute, the Harmonized methods should be used for the final determination.

6. The use of these methods for customs purposes by private or commercial laboratories does not constitute an accreditation of those laboratories or a guarantee of the validity of the results obtained. The accuracy of results is dependent upon the individual laboratory's ability to properly apply a particular method to goods within the scope of that method. Canada Border Services Agency reserves the right to request samples to verify that the reported results are valid for the product and purpose intended.

7. Methods published by standards organizations may be purchased directly from the publishing organization.

8. Methods identified by the Method No. prefix “NHM” are available from:

   Science and Engineering Directorate (S&E)
   Canada Border Services Agency
   79 Bentley Avenue
   Ottawa ON K1A 0L5

Additional Information

9. Inquiries should be addressed to:

   Director
   Analytical and Forensic Services Division
   Science and Engineering Directorate (S&E)
   Canada Border Services Agency
   79 Bentley Avenue
   Ottawa ON K1A 0L5

Appendix A

NAFTA Harmonized Laboratory Methods

References	Method No. – Date	Method Title
Chapters 25, 26, 28 and 32	ASTM D 50 – 1994	Standard Test Methods for Chemical Analysis of Yellow, Orange, Red, and Brown Pigments Containing Iron and Manganese
Chapters 28 and 74	ASTM E 1371 – 1994	Standard Test Method for the Gravimetric Determination of Phosphorus in Phosphorus- Copper Alloys or Phosphorus-Copper-Silver Alloys
Chapters 25 and 38	ASTM C 561 – 1991	Standard Test Method for Ash in a Graphite Sample
Chapters 25 and 38	ASTM D 2488 – 1993	Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)
Chapters 32 and 39	ASTM D 1259 – 1994	Standard Test Methods for Nonvolatile Content of Resin Solutions
Chapter 34; Note 2	AOAC-IUPAC 963.22 – 1990	Methyl Esters of Fatty Acids in Oils and Fats – Gas Chromatographic Method **Note:** Fatty acids content in soaps – Method modified for use of capillary columns instead of packed ones
Chapter 34 Note 3, Heading 34.04	ASTM D 1331 – 1995	Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface-Active Agents **Note**: alternative procedure for preparing 0.5% test solutions
Chapter 34 Note 5, Heading 34.04	ASTM D 2669 – 1993	Standard Test Method for Apparent Viscosity of Petroleum Waxes Compounded with Additives (Hot Melts)
Chapter 34 Note 5, Heading 34.04	ASTM D 3954 – 1994	Standard Test Methods for Dropping Point of Waxes
Chapter 39 Heading 39.01	ASTM D 792 – 08	Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
Chapter 39 Heading 39.01	ISO 1183 – 1: 2012	Plastics – Methods for determining the density of non-cellular plastics – Part 1: Immersion method, liquid pyknometer method and titration method
Chapters 50-60	ASTM D 2260 – 03 (2009)	Standard Tables of Conversion Factors and Equivalent Yarn Numbers Measured in Various Numbering Systems
Chapters 50-60	ISO 2947 – 1973	Textiles – Integrated conversion table for replacing traditional yarn numbers by rounded values in the Tex System
Chapters 50-60	ISO 139 – 2005/ Amd.1: 2011	Textiles – Standard atmospheres for conditioning and testing
Chapters 50-60	ASTM D 1776 – 08e1	Standard Practice for Conditioning and Textiles Testing **Note:** ISO 1833-1977 became ISO 1833-1-2006 to ISO 1833-26-2006
Chapters 50-60	ISO 5089 – 1977	Textiles – Preparation of laboratory test samples and test specimens for chemical testing
Chapters 50-60	NHM 001 – 1997	Textiles – Screening method for the identification of fibres by a flame test
Chapters 50-60	NHM 002 – 1997	Textiles - Man-made fibres – Identification by infrared spectroscopy

Chapters 50-60	ISO 1833 – 1977	Textiles – Binary fibre mixtures – Quantitative chemical analysis
Chapters 50-60	ASTM D 629 – 08	Standard Test Methods for Quantitative Analysis of Textiles
Chapters 50-60	AATCC 20 – 2011	Fiber Analysis: Qualitative
Chapters 50-60	AATCC 20A – 2012 (Revised)	Fiber Analysis: Quantitative
Chapter 51	ASTM D 584 – 10	Standard Test Method for Wool Content of Raw Wool – Laboratory Scale
Chapter 51	ISO 3072 – 1975	Wool – Determination of solubility in alkali
Chapter 51	ASTM D 1574 – 04 (2008)	Standard Test Method for Extractable Matter in Wool and Other Animal Fibers **Note:** US recommends substituting 95% ethanol for trichlorofluoroethylene
Chapter 51	ASTM D 1113 – 90a (2008)	Standard Test Method for Vegetable Matter and Other Alkali-Insoluble Impurities in Scoured Wool
Chapter 51	ASTM D 3991 – 94 (2012)	Standard Specifications for Fineness of Wool or Mohair and Assignment of Grade
Chapter 51	ISO 137 – 1975	Wool – Determination of fibre diameter – Projection microscope method
Chapter 51	ASTM D 2130 – 90 (2008)	Standard Test Method for Diameter of Wool and Other Animal Fibres by Microprojection
Chapters 50-56	ISO 1144 – 1973	Textiles – Universal system for designating linear density (Tex System)
Chapters 50-56	ASTM D 2497 – 07 (2012)	Standard Tolerance for Manufactured Organic-Base Filament Single Yarns
Chapters 50-56	ASTM D 861 – 07	Standard Practice for Use of the Tex System to Designate Linear Density of Fibers, Yarn Intermediates, and Yarns
Chapters 50-56	ISO 1973 – 1995	Textile fibres – Determination of Linear density – Gravimetric method and vibroscope method
Chapters 50-56	ISO 2060 – 1994	Textiles – Yarn from packages – Determination of linear density (mass per unit length) by the Skein method,
Chapters 50-56	ASTM D 1907/D1907M-12	Standard Test Method for Linear Density of Yarn (Yarn Number) by Skein Method
Chapters 52, 54 and 55	ISO 2 – 1973	Textiles – Designation of the direction of twist in yarns and related products
Chapters 52, 54 and 55	ISO 2061 – 2010	Textiles – Determination of twist in yarns – Direct counting method
Chapters 52, 54 and 55	ASTM D 1423 – 02 (2008)	Standard Test Method for Twist in Yarns by Direct-Counting
Chapters 50-56	ISO 2062 – 2009	Textiles – Yarn from packages – Determination of single-end breaking force and elongation at break using constant rate of extension (CRE) tester
Chapters 50-56	ISO 5079 – 1995	Textile Fibres – Determination of breaking force and elongation at break of individual fibres
Chapters 50-56	ASTM D 3822 – 07	Standard Test Method for Tensile Properties of Single Textile Fibres

Chapters 50-56	ASTM D 2256 /D2256M-10e1	Standard Test Method for Tensile Properties of Yarns by the Single-Strand Method
Chapter 54	ISO 7211-5 – 1984	Textiles – Woven fabrics – Construction – Methods of Analysis – Part 5: Determination of linear density of yarn removed from fabric
Chapters 50-60	ASTM D 3774 – 1989	Standard Test Methods for Width of Woven Fabric
Chapters 50-60	ISO 3801 – 1977	Textiles – Woven fabrics – Determination of mass per unit length and mass per unit area
Chapters 50-60	ASTM D 3776 /D3T6M-09ae2	Standard Test Method for Mass per Unit Area (Weight) of Fabric
Chapters 50-55	ISO 7211-2 – 1984	Textiles – Woven fabrics – Construction – Methods of analysis – Part 2: Determination of number of threads per unit length
Chapters 50-55	ISO 7211-6 – 1984	Textiles – Woven fabrics – Construction – Methods of analysis – Part 6: Determination of the mass of warp and weft per unit area of fabric
Chapters 50-55	NHM 004 – 1997	Textiles determination for Section XI of the Harmonized System
Chapters 50-55	ASTM D 3775 – 12	Standard Test Method for Warp (End) and Filling (Pick) count of Woven Fabric
Chapters 50-55	ISO 7211-1 – 1984	Textiles – Woven fabrics – Construction – Methods of analysis – Part 1: Methods for the presentation of a weave diagram and plans for drafting, denting and lifting
Chapter 56 Heading 56.01	ISO 6989 – 1981	Textile Fibres – Determination of length and length distribution of staple fibres (by measurement of single fibres)
Chapter 56	ISO 9073-1 – 1989	Textiles – Test methods for nonwovens – Part 1: Determination of mass per unit area
Chapter 56	ISO 9073-2-1995	Textiles – Test methods for nonwovens – Part 2: Determination of thickness
Chapters 56 and 59	NHM 003 – 1997	Coatings and impregnations on fabrics – Identification by infrared spectroscopy
Chapter 56	ISO 5080 – 1994	Sisal agricultural twines
Chapter 56 Subheading 5607.41	ISO 4167 – 2006	Polyolefin agricultural twines
Chapter 57	ISO 2550 – 1972	Textile Floor Coverings – Hand-made carpets – Determination of types of knots
Chapter 69	ASTM C 373 – 1994	Standard Test Method for Water Absorption, Bulk Density, Apparent Porosity, and Apparent Specific Gravity of Fired Whiteware Products

Appendix B

Abbreviations, Titles and Addresses of Standards Organizations

ISO International Organization for Standardization Geneva, Switzerland Standards can be obtained in Canada from: Standards Council of Canada 270 Albert Street, Suite 200 Ottawa, ON K1P 6N7 Telephone: 613-238-3222 Fax: 613-569-7808 E-mail: info@scc.ca	IUPAC International Union of Pure and Applied Chemistry Publications can be purchased from: Elsevier Science Canada Customer Service 905 King Street West, 4th floor Toronto, ON M6K 3G9 Telephone: 1-800-665-1148 Fax: 1-800-665-0103
ASTM American Society for Testing and Materials 100 Barr Harbor Drive, PO Box C700 West Conshohocken, PA 19428-2959 Telephone: 610-832-9585 Fax: 610-832-9555	AOAC AOAC International 481 North Frederick Avenue Suite 500 Gaithesburg, Maryland 20877-2417 USA Telephone: 1-800-379-2622 Fax: 301-924-7089 E-mail: aoac@aoac.org
AATCC American Association of Textile Chemists and Colorists P.O. Box 12215 Research Triangle Park, N.C. 27709-215 USA Telephone: 919-549-8141 Fax: 919-549-8933	

References	
Issuing Office	Analytical and Forensic Services Division Science and Engineering Directorate
Headquarters File	
Legislative References	*Customs Tariff*
Other References	North American Free Trade Agreement (NAFTA), Article 906
Superseded Memorandum D	D11-12-1 dated November 12, 1996