Chinastandards.org

ICS 97.200.50
CCS Y57

SN

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

SN/T 3619-2013

Determination of 17 migration elements in toy materials. Inductively coupled plasma mass spectrometer

玩具材料中17种可迁移元素的测定 ICP-MS法

(English Translation)

Issued on: August 30, 2013 **Implemented on: March 1, 2014**

Issued by: General Administration of Customs

Preview: page 1 of 3 shown, 6 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/sn-t-3619-2013

Chinastandards.org

Table of Contents

Foreword

17 Kinds of toy material migration of elements

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

Please note that some of the content of this document may involve patents. Distribution of this document Institutions do not assume the responsibility to identify these patents.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. People's Republic of China Shanghai Entry-Exit Inspection and Quarantine Bureau, People's Republic of China Entry-Exit Inspection and Quarantine Yangzhou Bureau, People's Republic of China Guangdong Entry-Exit Inspection and Quarantine Horgos People's Republic of China.

17 Kinds of toy material migration of elements

Determination by ICP-MS

1 Scope

This standard specifies the inductively coupled plasma mass spectrometry (ICP-MS) Determination of toys that can be migrated aluminum, antimony, arsenic, barium, boron, cadmium, chromium, Cobalt, copper, lead, manganese, mercury, nickel, selenium, strontium, tin, zinc and other toxic elements.

This standard applies to toy material 17 elements of the measurement of the migration.

2 Normative references the following documents for the application of this document is essential, dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 602 chemical reagents, standard solutions prepared with the determination of impurities GB 6675-2003 National Safety Technical Code for Toys Laboratory use specifications and test methods GB/T 6682 Analysis

3 Method summary

Preview: page 2 of 3 shown, 6 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/sn-t-3619-2013

Sample using a specific concentration of hydrochloric acid, so that analyte migration under certain conditions, after filtering the resulting solution was added to the standard sample, conducted by ICP-MS. In mass to charge ratio of the strength of its quantitative relationship element concentration was measured in a sample of aluminum, antimony, arsenic, barium, boron, cadmium, chromium, cobalt, copper, Migration of lead, manganese, mercury, nickel, selenium, strontium, tin, zinc and other elements.

4 Reagents and materials Unless otherwise indicated in the analysis using only recognized as pure class distinctions or through sub-boiling distilled chemical reagents, laboratory water match GB/T 6682 provisions of secondary water.

4.1 of concentrated hydrochloric acid (37% concentration).

4.2 hydrochloric acid solution (0.07 ± 0.005mol/L).

4.3 concentrated nitric acid (65% concentration).

4.4 nitric acid solution (28 volume). Take 20mL of concentrated nitric acid (4.3) was slowly added 80mL of water.

4.5 standard stock solution. aluminum, antimony, arsenic, barium, boron, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, selenium, strontium, tin, zinc standard solution according to GB/T 602 Party Preparation method, or directly using standard element solution is a solution of the certificate within the validity period, the concentration of standard stock solution are 1000μg/mL.

4.6 mixed standard working solution. serial dilution of aluminum, antimony, arsenic, barium, boron, cadmium, chromium, cobalt, copper, lead, manganese, nickel, selenium, strontium with hydrochloric acid solution (4.2), Tin, zinc standard stock solution to prepare a series of concentrations of mixed standard working solution, the concentration of standard working solution see Appendix A, Table A.1. standard Working solution required for immediate use.

4.7 internal standard stock solution. germanium, indium, bismuth concentration was 1000μg/mL.

4.8 internal standard working solution. with a hydrochloric acid solution (4.2) was diluted stepwise germanium, indium, bismuth internal standard stock solution, formulated in a concentration of 5μg/L internal standard mixing Working solution, select the different elements of the internal standard elements see Appendix A in Table A.2.

Preview: page 3 of 3 shown, 6 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/sn-t-3619-2013