

Deutsche Akkreditierungsstelle GmbH

Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition

Accreditation

The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

SGS Hong Kong Limited
1/F UNITS 16-29 3/F 4/F & 5/F, On Wui Centre 25 Lok Yip Road,
Fanling, New Territories, HONG KONG

is competent under the terms of ISO/IEC 17025:2017 to carry out tests in the following fields:

chemical and physical-chemical testing of textiles, leather and leather goods, toys, rubber, plastics, food containers, fashion jewellery, automotive parts, chemical formulations - solvents, cleaners, adhesives, paints, inks, dyes, pigments, auxiliaries and pretreatment agents, electrical and electronic equipment as well as articles coming into contact with skin; determination of the emission of volatile organic compounds (VOCs) and formaldehyde from textiles, leather products, toys, wood, electrical and electronic equipment and automotive parts; selected chemical tests for foodstuff;

biodegradability of plastic, packaging and packaging materials

The accreditation certificate is valid until 27.01.2027. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 31 pages.

Registration number of the certificate: D-PL-11158-01-00

Head of Division

Berlin, 28.01.2022

The certificate together with the annex reflects the status as indicated by the date of issue.

The current status of any given scope of accreditation may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH at https://www.dakks.de/en/accredited-bodies-search.html.



Deutsche Akkreditierungsstelle GmbH

Office Berlin Spittelmarkt 10 10117 Berlin Office Frankfurt am Main Europa-Allee 52 60327 Frankfurt am Main Office Braunschweig Bundesallee 100 38116 Braunschweig

The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkkS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkkS.

DAkkS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:

EA: www.european-accreditation.org

ILAC: www.ilac.org IAF: www.iaf.nu



Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11158-01-00 according to ISO/IEC 17025:2017

Period of validity: 28.01.2022 to 27.01.2027

Date of issue: 28.01.2022

Holder of certificate:

SGS Hong Kong Limited
1/F UNITS 16-29 3/F 4/F & 5/F, On Wui Centre 25 Lok Yip Road,
Fanling, New Territories, HONG KONG

Tests in the fields:

chemical and physical-chemical testing of textiles, leather and leather goods, toys, rubber, plastics, food containers, fashion jewellery, automotive parts, chemical formulations - solvents, cleaners, adhesives, paints, inks, dyes, pigments, auxiliaries and pretreatment agents, electrical and electronic equipment as well as articles coming into contact with skin; determination of the emission of volatile organic compounds (VOCs) and formaldehyde from textiles, leather products, toys, wood, electrical and electronic equipment and automotive parts; selected chemical tests for foodstuff; biodegradability of plastic, packaging and packaging materials

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.

The testing laboratory maintains a current list of all test methods in a flexible scope of accreditation.

The management system requirements of ISO/IEC 17025 are written in language relevant to operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

The certificate together with the annex reflects the status as indicated by the date of issue.

The current status of any given scope of accreditation may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH https://www.dakks.de/en/content/accredited-bodies-dakks

Abbreviations used: see last page Page 1 of 31



1 Chemical and Physical-Chemical Testing of Consumer Products

1.1 Organic Hazardous Substances in Plastics/Polymers, Coating, Textile, Leather, Silica, Rubber and Ink using Gas Chromatography Mass Spectrometer Detector (GC-MS)

ISO 8124-6 2018-11	Safety of toys – Part 6: Certain phthalates esters in toys and children's products (Method A & C)
ISO 14389 2014-05	Textiles - Determination of phthalate content - Tetrahydrofuran method
ISO 17070 2015-02	Leather - Chemical tests - Determination of Pentachlorophenol content
CTS-SL-205-01 2020-12	Determination of Organotin Content in Testile, Plastic, Leather and Chemical Formulations with Extraction Faciliated by Carbamate solution by GC-MS method
ISO 17881-1 2016-02	Textiles – Determination of Certain Flame Retardants – Part 1: Brominated Flame Retardants
ISO/TS 16179 2012-08	Footwear - Critical substances potentially present in footwear and footwear components - Determination of organotin compounds in footwear materials
ISO 22744-1 2020-05	Textiles and textile products — Determination of organotin compounds — Part 1: Derivatisation method using gas chromatography
EN 14372 2004-08	Child use and care articles - Cutlery and feeding utensils - Safety requirements and tests (Section 6.3.2 Determination of phthalate content)
EN 17130 2019-07	Textiles and textile products - Determination of dimethylfumarate (DMFu), method using gas chromatography
EN 17132 2019-07	Textiles and textile products - Determination of Polycyclic Aromatic Hydrocarbons (PAH), method using gas chromatography
DIN EN ISO 17070 2015-05	Leather - Chemical tests - Determination of Pentachlorophenol content
DIN EN 14372 2004-11	Child use and care articles - Cutlery and feeding utensils - Safety requirements and tests (Section 6.3.2 Determination of phthalate content)

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BS EN ISO 17070 2015-02	Leather - Chemical tests - Determination of Pentachlorophenol content
BS EN 14372 2006-08	Child use and care articles - Cutlery and feeding utensils - Safety requirements and tests (Section 6.3.2 Determination of phthalate content)
AfPS GS 2014:01 PAK 2014-08	Product Safety Commission (AfPS) GS Specification: Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of awarding the GS mark- Specification pursuant to article 21(1) no. 3 of the Product Safety Act (ProdSG) (Limitation: <i>only performance of the physico-chemical and chemical tests</i>)
AfPS GS 2019:01 PAK 2019-05	Product Safety Commission (AfPS) GS Specification: Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of awarding the GS mark- Specification pursuant to article 21(1) no. 3 of the Product Safety Act (ProdSG) (Limitation: <i>only performance of the physico-chemical and chemical tests</i>)
ASU B 82.02-8 2001-06	Determination of Pentachlorophenol in textiles
IEC 62321-8 Edition 1.0 2017-03	Determination of certain substances in electrotechnical products - Part 8: Phthalates in polymers by gas chromatography-mass spectrometry (GC-MS), gas chromatography-mass spectrometry using a pyrolyzer/thermal desorption accessory (Py-TD-GC-MS) (Limitation: <i>Applied only for GC-MS</i>)
CPSC-CH-C1001-09.3 2010-04	Standard operating procedure for determination of phthalates
CPSC-CH-C1001-09.4 2018-01	Standard operating procedure for determination of phthalates
CTS-HL-206-5 2018-03	Determination of Polycyclic Aromatic Hydrocarbons (PAHs) Content in plastic, rubber type samples & chemical formulations
CTS-SL-203-1 2020-12	Determination of the content of extractable Monochlorophenols (MCPs), Dichlorophenols (DCPs), Trichlorophenols (TCPs), Tetrachlorophenols (TeCPs) and Pentachlorophenol (PCP), its salts and esters in leather by steam distillation / GC-MS and GC-ECD analysis

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(Limitation: Applied only for GC-MS)



CTS-SL-203-2 2018-04	Determination of the content of extractable Monochlorophenol (MCP), Dichlorophenol (DCP), Trichlorophenol (TCP), Tetrachlorophenol (TeCP) and Pentachlorophenol (PCP), its salts and esters in printed polyester and chemical formulations by alkaline digestion / GC-MS and GC-ECD analysis by in-house method (Limitation: <i>Applied only for GC-MS</i>)
CTS-SL-204-1 2016-07	Determination of Chlorinated Organic Carriers (COC) in Textile Commodity Article by In-house GCMS method
CTS-SL-204-2 2018-03	Determination of Chlorinated Organic Carriers (COC) in Textile Commodity Article and Chemical Formulations by GC-MS method
CTS-SL-205-1 2020-12	Determination of Organotin Content in Textile, Plastic, Leather and Chemical Formulations with Extraction Facilitated by Carbamate solution by GC-MS method
CTS-SL-206-10 2020-11	Determination the content of Phthalates (DBP, BBP, DEHP, DINP, DNOP, DIDP, DiBP, DNHP, DEP, DIOP, DMEP, DCHP, DNP and DPrP) in print and chemical formulations by GC-MS method
CTS-SL-208-1 2020-12	Determination of Polychlorinated Biphenyls (Congeners) Content in Textile Materials by GC-MS method
CTS-SL-216-5 2018-06	Determination of Flame retardants in textile, leather, plastic and chemical formulations by GC-MS method
CTS-SL-229-1 2011-03	Determination of Tetrabromobisphenol A (TBBP-A) and Pentabromophenol (PBP) using GC-MS
CTS-SL-231-1 2008-01	Determination of Triclosan in Textile Material and Plastic by GC/MS
CTS-SL-237-1 2018-04	Determination of the content of extractable of ortho-Phenylphenol (OPP), its salts and esters in textiles and chemical formulations by alkaline digestion/GC-MS analysis by in-house method
CTS-SL-244-1 2008-12	Determination of Dimethyl Fumarate content in leather, PU leather, rubber and silica gel pellet by GC/MS method
CTS-SL-244-2 2009-09	Determination of Dimethyl Fumarate content in leather, PU leather, rubber and silica gel pellet using Methanol extraction by GC/MS method
CTS-SL-244-3 2012-04	Determination of Dimethyl Fumarate content in leather, PU leather, and silica gel pellet using ethyl acetate extraction by GC/MS method

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CTS-SL-266-1 Determination of Dimethylformamide in footwear materials by 2020-12 GC/MS

CTS-SL-266-2 Determination of Dimethylformamide, Formamide,

2020-12 Dimethylacetamide and N-Methyl-2-pyrrolidone in footwear

materials by GC/MS-

1.2 Organic Hazardous Substances in Textile, Leather and Plastics/Polymers and Oil based Material using Gas Chromatography-Electron Capture Detector (GC-ECD)

ISO 17070 Leather - Chemical tests - Determination of Pentachlorophenol content

2015-02

DIN EN ISO 17070 Leather - Chemical tests - Determination of Pentachlorophenol content

2015-05

BS EN ISO 17070 Leather - Chemical tests - Determination of Pentachlorophenol content

2015-02

ASU B 82.02-8 Determination of Pentachlorophenol in textiles

2001-06

2018-04

CTS-EC-211-1 Determination of Short Chain Chlorinated Paraffin (C₁₀₋₁₃), Medium

2016-08 Chain Chlorinated Paraffin (C_{14-17}), Polychlorinated Biphenyls (Aroclors),

Polychlorinated Naphthalene (PCN), Polychlorinated Terphenyls (Aroclors), and Mirex content in polymeric and oil-based electrical or electronic components by Gas Chromatography - Electron Capture

Detector (GC-ECD)

CTS-SL-203-1 Determination of the content of extractable Monochlorophenols

2020-12 (MCPs), Dichlorophenols (DCPs), Trichlorophenols (TCPs),

Tetrachlorophenols (TeCPs) and Pentachlorophenol (PCP), its salts and esters in leather by steam distillation / GC-MS and GC-ECD

analysis

(Limitation: Applied only for GC-ECD)

CTS-SL-203-2 Determination of the content of extractable Monochlorophenol

(MCP), Dichlorophenol (DCP), Trichlorophenol (TCP),

Tetrachlorophenol (TeCP) and Pentachlorophenol (PCP), its salts and esters in printed polyester and chemical formulations by alkaline digestion / GC-MS and GC-ECD analysis by in-house method

(Limitation: Applied only for GC-ECD)

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1.3 Organic Hazardous Substances in Textile, Leather, Paper and Plastic using High Performance Liquid Chromatography - Mass Spectrometer Detector (HPLC-MS)

DIN 54231 2005-11	Textiles - Detection of disperse dyestuffs
CTS-HL-306-1 2008-07	Determination of flame retardants in toy materials by LC-MS analysis
CTS-SL-202-1 2020-12	Determination of Allergeneous and Carcinogenic dyestuff in Textile Materials by HPLC/MSD
CTS-SL-202-4 2020-12	Determination of Allergeneous and Carcinogenic dyestuff in Chemical Formulations by HPLC/MSD
CTS-SL-213-3 2013-12	Determination of Alkylphenol and Alkylphenol Ethoxylate in Textile, Liquid and Plastic
CTS-SL-217-1 2008-08	Determination of Bis(2,3-dibromopropyl) Phosphate (BDBPP) and Tris(2,3-dibromopropyl) Phosphate (TRIS) by HPLC/MS
ISO 13365-1 2020-07	Leather — Chemical determination of the preservative (TCMTB, PCMC, OPP, OIT) content in leather by liquid chromatography — Part 1: Acetonitrile extraction method
ISO 21084 2019-02	Textiles — Method for determination of alkylphenols (AP)

1.4 Organic Hazardous Substances in Textiles, Plastics/Polymers, Coating Material and Elastomers using High Performance Liquid Chromatography - Tandem Mass Spectrometer Detector (HPLC-MS/MS)

ISO 17881-2 2016-02	Textiles – Determination of Certain Flame Retardants – Part 2: Phosphorus Flame Retardants
ISO 23702-1 2018-09	Leather — Organic fluorine — Part 1:Determination of the non-volatile compound content by extraction method using liquid chromatography/tandem mass spectrometry detector (LC-MS/MS)
CTS-HL-229-1 2021-05	Bisphenol A in-polymeric materials by High Performance Liquid Chromatograph with Tandem mass spectrometer (HPLC-MS-MS)
CTS-HL-518-5 2016-06	Migration of N-Nitrosamines and N-Nitrosatable Substances in Balloons and Elastomers by LC-MS/MS

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CTS-SL-219-1 2018-03	Determination of extractable Perfluorooctanoic acid (PFOA) and Heptadecafluorooctanesulfonic acid (PFOS) in textile sample by LC-MS/MS
CTS-SL-219-2 2018-03	Determination of extractable Perfluorooctanoic acid (PFOA) and Heptadecafluorooctanesulfonic acid (PFOS) for textiles and coated materials by LC-MS/MS
CTS-SL-219-3 2018-03	Determination of extractable Perfluorooctanoic acid (PFOA) and Heptadecafluorooctanesulfonic acid (PFOS) for polymeric materials by LC-MS/MS
CTS-SL-219-4 2018-03	Determination of extractable Perfluorooctanoic acid (PFOA) and Heptadecafluorooctanesulfonic acid (PFOS) for liquid samples by LC-MS/MS

1.5 Organic Hazardous Substances in Textile and Leather using High Performance Liquid Chromatograph - Diode Array Detector (HPLC-DAD)

ISO 17226-1 2018-12	Leather - Chemical determination of formaldehyde content - Part 1: Method using high performance liquid chromatography
CTS-SL-224-1 2008-08	Determination of Biocides in Textile Materials by High Performance Liquid Chromatograph - Diode Array Detector (HPLC-DAD)
ISO 13365-1 2020-07	Leather — Chemical determination of the preservative (TCMTB, PCMC, OPP, OIT) content in leather by liquid chromatography — Part 1: Acetonitrile extraction method

1.6 Organic Hazardous Substances in Textile using High Performance Liquid Chromatograph - Diode Array Detector - Mass Spectrometer (HPLC-DAD-MS)

CTS-SL-202-6	Determination of Quinoline in Textile by High Performance Liquid
2021-08	Chromatograph with Diode Array Detector and Mass Spectrometer
	(HPLC/DAD/MS)

1.7 Organic Hazardous Substances in Textile and Leather using Gas Chromatography - Mass Spectrometer (GC-MS)

ISO 17234-1	Leather - Chemical tests for the determination of certain azo
2015-04	colorants in dyed leathers - Part 1: Determination of certain
	aromatic amines derived from azo colorants

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ISO 17234-2 2011-03	Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 2: Determination of 4-aminoazobenzene
EN ISO 14362-1 2017-02	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible without extraction
EN ISO 14362-3 2017-02	Textile - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene
DIN EN 14362-3 2017-05	Textile - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene
BS EN ISO 14362-1 2017-02	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible without extraction
BS EN 14362-3 2017-02	Textile - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene
ASU B 82.02-2 2013-01	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible without extraction
ASU B 82.02-3 2014-02	Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 1: Determination of certain aromatic amines derived from azo colorants
ASU B 82.02-9 2014-02	Determination of the use of azo dyes which may release the 4-Aminoazobenzene
ASU B 82.02-15 2013-01	Textile - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene

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1.8 Organic Hazardous Substances in Textile and Leather using High Performance Liquid Chromatography with diode-array detection (HPLC-DAD)

ISO 17234-1 2015-04	Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 1: Determination of certain aromatic amines derived from azo colorants
ISO 17234-2 2011-03	Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 2: Determination of 4-aminoazobenzene
EN ISO 14362-1 2017-02	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible without extraction
EN ISO 14362-3 2017-02	Textile - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene
DIN EN 14362-3 2017-05	Textile - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene
BS EN ISO 14362-1 2017-02	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible without extraction
BS EN 14362-3 2017-02	Textile - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene
ASU B 82.02-2 2013-01	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible without extraction
ASU B 82.02-3 2014-02	Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 1: Determination of certain aromatic amines derived from azo colorants
ASU B 82.02-9 2014-02	Determination of the use of azo dyes which may release the 4-Aminoazobenzene
ASU B 82.02-15 2013-01	Textile - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene

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1.9 Organic Hazardous Substances in Textile, Coating and Plastics/Polymers using Gas Chromatography - Nitrogen Phosphorus Detector/Mass Spectrometer (GC-NPD)

CTS-SL-218-3 Determination of Tris-(aziridinyl)phosphine oxide (TEPA) by 2011-03 sonication method using GC- NPD in textile materials

1.10 Sample preparation of Metals, Textiles, Leather, Coating and Plastics/Polymers for the analysis of Heavy Metals and Organic substances

1.10.1 Sample preparation for the analysis of Heavy Metals by Extraction

EN 1811 2011 + A1:2015	Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin
EN 16128 2015-11	Reference method for the testing of spectacle frames and sunglasses for nickel release
EN 12472 2020-09	Method for the simulation of wear and corrosion for the detection of nickel release from coated items
DIN EN 1811 2015-10	Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin
DIN EN 12472 2009-09 2020-11	Method for the simulation of accelerated wear and corrosion for the detection of nickel release from coated items
BS EN 1811 2011 + A1 :2015	Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin
BS EN 12472 2005+A1:2009 2009-07 2020-09	Method for the simulation of wear and corrosion for the detection of nickel release from coated items
BS EN 16711-2 2015-11	Textiles - Determination of metals extracted by acidic artificial perspiration solution
BS EN 16711-3 2019-05	Textiles - Determination of metal content - Part 3: Determination of lead release by artificial saliva solution

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1.10.2 Sample preparation for the analysis of Heavy Metals by digestion

BS EN 1122 2001-05	Plastics - Determination of cadmium - Wet decomposition method
EPA 3051A 1998-01	Microwave assisted acid digestion of sediments, sludges, soils and oils (Modification: here for plastics)
EPA 3052 1996-02	Microwave assisted acid digestion of siliceous and organically based matrices
BS EN 16711-1 2015-11	Textiles - Determination of metal content - Part 1: Determination of metals using microwave digestion

1.10.3 Mechanical sample preparation for the analysis of Heavy Metals and Organic substances

IEC 62321-2	Determination of certain substances in electrotechnical products -
2021-09	Part 2: Disassembly, disjointment and mechanical sample
	preparation

1.11 Heavy Metal in Metal, Textile, Coating and Plastics/Polymers using Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES)

EN 1122 Method B 2001-03	Plastics - Determination of cadmium - Wet decomposition method
DIN EN 1122 Method B 2001-05	Plastics - Determination of cadmium - Wet decomposition method
CD002 2018-06	Determination of Cadmium Content with the method of wet decomposition in Paints and Surface Coating Materials
CPSC-CH-E1001-08.3 2012-11	Standard operating procedure for determining total lead (Pb) in children's metal products (including children's metal jewelry)
CPSC-CH-E1002-08.3 2012-11	Standard operation procedure for determining total lead (Pb) in non-metal children's products
CPSC-CH-E1003-09.1 2011-02	Standard operating procedure for determining lead (Pb) in paint and other similar surface coatings

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1.12 Heavy Metal in Metal, Textile, Leather, Coating and Plastics/Polymers using Induced-Coupled Plasma - Mass Spectrometer (ICP-MS)

ISO 17072-1 2019-02	Leather – Chemical Determination of Metal Content – Part 1: Extractable Metals
ISO 17072-2 2019-02	Leather – Chemical Determination of Metal Content – Part 2: Total Metal Content
CTS-SL-103-1 2021-10	Extractable Heavy Metal in Artificial Sweat / Saliva Solution determination by ICP-MS/ UV-VIS spectrophotometer
CTS-SL-108-6 2020-12	Determination of heavy metal content using microwave digestion for textile, leather, plastics, metal, coating and chemical formulations by ICP-MS

1.13 Heavy Metal in Metal, Textile, Leather, Coating and Plastics/Polymers using Atomic Absorption Spectrophotometer (Flame-AAS)

EN 1122 Method B 2001-03	Plastics - Determination of cadmium - Wet decomposition method
DIN EN 1122 Method B 2001-05	Plastics - Determination of cadmium - Wet decomposition method
BS EN 1122 2001-05	Plastics - Determination of cadmium - Wet decomposition method
CD002 2018-06	Determination of Cadmium Content with the method of wet decomposition in Paints and Surface Coating Materials by Flame-AAS
CD003 2020-06	Determination total cadmium (Cd) content in metal jewellery product by Flame-AAS
CPSC-CH-E1001-08.3 2012-11	Standard operating procedure for determining total lead (Pb) in children's metal products (including children's metal jewelry)
CPSC-CH-E1002-08.3 2012-11	Standard operation procedure for determining total lead (Pb) in non-metal children's products
CPSC-CH-E1003-09.1 2011-02	Standard operating procedure for determining lead (Pb) in paint and other similar surface coatings

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1.14 Hazardous Substances in Plastics/Polymers, Textile and Leather using UV-VIS Spectrophotometer (UV-VIS)

ISO 10195 2018-05	Leather – Chemical determination of chromium(VI) content in leather – Thermal pre-ageing of leather and determination of hexavalent chromium
ISO 14184-1 2011-08	Textiles - Determination of formaldehyde - Part 1: Free and hydrolyzed formaldehyde (water extraction method)
ISO 14184-2 2011-08	Textiles - Determination of formaldehyde - Part 2: Released formaldehyde (vapour absorption method)
ISO 17075-1 2017-02	Leather - Chemical determination of chromium(VI) content in leather - Part 1: Colorimetric method
ISO 17226-2 2018-12	Leather - Chemical determination of formaldehyde content - Part 2: Method using colorimetric analysis
EN 420 2003 + A1:2009 Clause 4.3.3	Protective gloves - general requirement and test methods Determination of chromium (VI) content
DIN EN 420 2003 +A1:2009 Clause 4.3.3	Protective gloves - general requirement and test methods Determination of chromium (VI) content
BS EN 420 2003 +A1:2009 Clause 4.3.3	Protective gloves - general requirement and test methods Determination of chromium (VI) content
DIN EN ISO 14184-1 2012-12	Textiles - Determination of formaldehyde - Part 1: Free and hydrolyzed formaldehyde (water extraction method)
DIN EN ISO 14184-2 2011-12	Textiles - Determination of formaldehyde - Part 2: Released formaldehyde (vapour absorption method)
BS EN ISO 14184-1 2012-08	Textiles - Determination of formaldehyde - Part 1: Free and hydrolyzed formaldehyde (water extraction method)
BS EN ISO 14184-2 2011-09	Textiles - Determination of formaldehyde - Part 2: Released formaldehyde (vapour absorption method)
NF EN ISO 14184-2 2011-11	Textiles - Determination of formaldehyde - Part 2: Released formaldehyde (vapour absorption method)

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AATCC 112 Formaldehyde Release from Fabric, Determination of:

2008-01 Sealed Jar Method

JIS L1041 Japan Industrial Standards - Test methods for resin finished textiles

Method B (Determination of formaldehyde content for textiles)

2011-07

Japanese Law No. 112 Law for the control of household products containing harmful

1973-10 substances (Test method: Refer to item 17 in Appendix table of

Japanese Law No.112)

(Determination of formaldehyde content for textiles)

1.15 Organic Hazardous Substances Plastic and Coating using Fourier Transform Infrared Spectrophotometer (FT-IR)

CTS-SL-207-6 Polyvinyl Chloride (PVC) Detection in Plastic Material and Coating

2018-10 Material by FT-IR

1.16 Organic Hazardous Substances in Electrical Product Material using Gas Chromatography - Mass Spectrometer Detector (GC-MS)

AfPS GS 2014:01 PAK Product Safety Commission (AfPS) GS Specification: Testing and

2014-08 assessment of polycyclic aromatic hydrocarbons (PAHs) in the course

of awarding the GS mark- Specification pursuant to article 21(1) no.

3 of the Product Safety Act (ProdSG)

(Limitation: only performance of the physico-chemical and chemical

tests)

AFPS GS 2019:01 PAK Product Safety Commission (AfPS) GS Specification: Testing and

2019-05 assessment of polycyclic aromatic hydrocarbons (PAHs) in the course

of awarding the GS mark- Specification pursuant to article 21(1) no.

3 of the Product Safety Act (ProdSG)

(Limitation: only performance of the physico-chemical and chemical

tests)

EPA 8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

2007-02 (Modifications: Apply for PCBs, Short Chain Chlorinated Paraffin

(C10-13) and Medium Chain Chlorinated Paraffin (C14-17))

IEC 62321-6 Determination of certain substances in electrotechnical products -

2015 Part 6: Polybrominated biphenyls and polybrominated diphenyl

ethers in polymers by gas chromatography -mass spectrometry

(GC-MS)

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CTS-HL-206-5	Determination of Polycyclic Aromatic Hydrocarbons (PAHs) Content
2018-03	in plastic, rubber type samples & chemical formulations

1.17 Determination of Halogenic Substances in waste from electrotechnical products

EN 14582 Characterisation of waste - Halogen and sulfur content - Oxygen 2016-08 combustion in closed systems and determination methods

1.18 Determination of Heavy Metals in Metallic material, Textiles, Plastics/Polymers from electrotechnical products

BS EN ISO 3613 2010-12	Chromate conversion coatings on zinc, cadmium, aluminium-zinc alloys and zinc-aluminium alloys - Test methods
IEC 62321-3.1 2013-06	Determination of certain substances in electrotechnical products - Part 3-1: Screen-Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry
IEC 62321-4 2013-06 + AMD1:2017	Determination of certain substances in electrotechnical products - Part 4: Mercury in polymers, metals and electronics by CV-AFS, CV-AAS, ICP-OES and ICP-MS (Limitation: <i>Applied only for</i> ICP-OES and ICP-MS)
IEC 62321-5 2013-06	Determination of certain substances in electrotechnical products - Part 5: Cadmium, lead and chromium in polymers and electronics and Cadmium and lead in metals by AAS, AFS, ICP-OES and ICP-MS (Limitation: <i>Applied only for Flame-AAS</i> , ICP-OES and ICP-MS)
IEC 62321-7.1 2015-09	Determination of certain substances in electrotechnical products - Part 7-1: Hexavalent chromium - Presence of hexavalent chromium (Cr(VI)) in colourless and coloured corrosion-protected coatings on metals by the colorimetric method
IEC 62321-7.2 2017-03	Determination of certain substances in electrotechnical products - Part 7.2: Hexavalent chromium - Determination of hexavalent chromium (Cr(VI)) in polymers and electronics by the colorimetric method
CTS-SL-104-6 2018-08	Accelerated aging procedure for Chromium VI development using controlled humidity chamber

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1.19 Determination of Organic substances in Textiles, Plastics/Polymers from electrotechnical products

IEC 62321-6 Determination of certain substances in electrotechnical products -

Part 6: Polybrominated biphenyls and polybrominated diphenyl

ethers in polymers by gas chromatography -mass spectrometry

(GC-MS)

IEC 62321-8 Determination of certain substances in electrotechnical products -

2017-03 Part 8: Phthalates in polymers by gas chromatography-mass

spectrometry (GC-MS), gas chromatography-mass-spectrometry using a pyrolyzer/thermal desorption accessory (Py/TD-GC-MS)

(Limitation: Applied only for GC-MS)

1.20 Determination of pH in Textiles/Leathers

ISO 3071 Textiles - Determination of pH of aqueous extract

2020-01

2015-06

ISO 4045 Leather – Chemical tests – Determination of pH and difference figure

2018-05

EN ISO 3071 Textiles - Determination of pH of aqueous extract

2020-02

DIN EN ISO 3071 Textiles - Determination of pH of aqueous extract

2020-05

BS EN ISO 3071 Textiles - Determination of pH of aqueous extract

2020-02

1.21 Determination of Glycols

CTS-SL-271-1 Determination of Glycols in Chemical formulations by GC/MS 2018-03

2 Chemical Tests of Food Containers (Materials and Articles intended to come into Contact with Food)

2.1 Heavy Metals in Silicate Materials using Flame-AAS

EN 1388-2 Materials and articles in contact with foodstuffs - silicate surfaces - 1995-10 Determination of the release of lead and cadmium from silicate

surfaces other than ceramic

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DIN EN 1388-2 1995-11	Materials and articles in contact with foodstuffs - silicate surfaces - Determination of the release of lead and cadmium from silicate surfaces other than ceramic
BS EN 1388-2 1996-07	Materials and articles in contact with foodstuffs - silicate surfaces - Determination of the release of lead and cadmium from silicate surfaces other than ceramic

2.2 Organic Hazardous Substances in Paper, Wood and Wood Based Materials using UV-VIS Spectrometer (UV-VIS)

BS EN 1541	Paper and board intended to come into contact with foodstuffs -
2001-06	(Determination of formaldehyde in an aqueous extract)

2.3 Determination of Substances in Food Contact Material

EN 1186-1 2002-07	Materials and articles in contact with foodstuffs - Plastics - Part 1: Guide to the selection of conditions and test methods for overall migration
EN 1186-2 2002-07	Materials and articles in contact with foodstuffs - Plastics - Part 2: Test methods for overall migration into olive oil by total immersion
EN 1186-3 2002-07	Materials and articles in contact with foodstuffs - Plastics - Part 3: Test methods for overall migration into aqueous food simulants by total immersion
EN 1186-4 2002-07	Materials and articles in contact with foodstuffs - Plastics - Part 4: Test methods for overall migration into olive oil by cell
EN 1186-5 2002-07	Materials and articles in contact with foodstuffs - Plastics - Part 5: Test methods for overall migration into aqueous food simulants by cell
EN 1186-8 2002-07	Materials and articles in contact with foodstuffs - Plastics - Part 8: Test methods for overall migration into olive oil by article filling
EN 1186-9 2002-07	Materials and articles in contact with foodstuffs - Plastics - Part 9: Test methods for overall migration into aqueous food simulants by article filling

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EN 1186-10 Materials and articles in contact with foodstuffs - Plastics - 2002-12 Part 10: Test methods for overall migration into olive oil

(modified method for use in cases where incomplete extraction of

olive oil occurs)

EN 1186-14 Materials and articles in contact with foodstuffs - Plastics -

2002-12 Part 14: Test methods for 'substitute tests' for overall migration from

plastics intended to come into contact with fatty foodstuffs using test

media isooctane and 95% ethanol

BS 6748 Specification for limits of metal release from ceramic ware, glass-

1986 + A1:2011 ware, glass ceramic ware and vitreous enamel ware

2011-10

Council Directive 84/500/EEC of 15 October 1984 on the

84/500/EEC approximation of the laws of the Member States relating to ceramic

1984-10 articles intended to come into contact with foodstuffs

(Determination of leachable lead and cadmium)

Commission Regulation

10/2011/EU 2011-01 Commission Regulation (EU) No 10/2011 of 14 January 2011 relating to plastic materials and articles intended to come into contact with

foodstuffs

(Determination of overall migration)

AS 2070 clause 4.1.1 (b)

1999-03

Plastics materials for food contact use (determination of overall migration)

(used in conjunction with EN 1186 standards)

BS EN 645 Paper and board intended to come into contact with foodstuffs -

1994-02 Preparation of a cold water extract

3 Chemical Tests of Toys (including Child Use and Care Articles) and Fashion Jewellery

3.1 Sample preparation for the analysis of toys for Heavy metals using extraction

ASTM F963-17 Standard consumer safety specification for toy safety

2017-08 (Apply for soluble heavy metals)

3.2 Heavy Metals in Plastics/Polymers, Paints and Coatings of Toys (including Child Use and Care Articles) and Fashion Jewellery by using ICP-OES

ISO 8124-3:2020

Safety of Toys - Part 3: Migration of certain elements

2020-03

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EN 71-3:1994+A1 Safety of Toys - Part 3: Migration of certain elements

2000-09+AC:2002-07

DIN EN 71-3:2002+ A1 Safety of Toys - Part 3: Migration of certain elements

2000-09+AC:2002-07

BS EN 71-3:1995+A1:2001-04 Safety of Toys - Part 3: Migration of certain elements

+AC:2006-06

3.3 Heavy Metals in Plastics/Polymers, Paints and Coatings of Toys (including Child Use and Care Articles) and Fashion Jewellery by using Flame-AAS

EN 1122 Method B Plastics - Determination of cadmium - Wet decomposition method

2001-03

DIN EN 1122 Method B Plastics - Determination of cadmium - Wet decomposition method

2001-05

BS EN 1122 Plastics - Determination of cadmium - Wet decomposition method

2001-05

CD002 Determination of Cadmium Content with the method of wet

2018-06 decomposition in Paints and Surface Coating Materials

CPSC-CH-E1002-08.3 Standard operation procedure for determining total lead (Pb) in non-

2012-11 metal children's products

CPSC-CH-E1003-09.1 Standard operating procedure for determining lead (Pb) in paint and

2011-02 other similar surface coatings

3.4 Heavy Metals in Plastics/Polymers, Paints and Coatings of Toys (including Child Use and Care Articles) and Fashion Jewellery by using ICP-MS

DIN EN 71-3 Safety of Toys - Part 3: Migration of certain elements

2017-08

EN 71-3 Safety of Toys - Part 3: Migration of certain elements

2019 + A1:2021

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3.5 Heavy Metals in Paints and Coatings of Toys (including Child Use and Care Articles) and Fashion Jewellery by using Flame-AAS

CD002 Determination of Cadmium Content with the method of wet decomposition in Paints and Surface Coating Materials

CPSC-CH-E1003-09.1 Standard operating procedure for determining lead (Pb) in paint and

2011-02 other similar surface coatings

3.6 Organic Hazardous Substances in Wood and Wood Based Materials of Toys (including Child Use and Care Articles) and Fashion Jewellery by using UV-VIS

BS EN 717-3 Wood-based panels - Determination of formaldehyde release -

1996-09 Part 3: Formaldehyde release by the flask method

BS EN 1541 Paper and board intended to come into contact with foodstuffs -

2001-06 Determination of formaldehyde in an aqueous extract

3.7 Organic Hazardous Substances in Plastics/Polymers using GC-MS

ISO 8124-6 Safety of toys – Part 6: Certain phthalates esters in toys and

2018-11 children's products (Method A & C)

EN 71-3 Safety of Toys - Part 3: Migration of certain elements

2019+A1:2021

EN 14372 Child use and care articles - Cutlery and feeding utensils - Safety

2004-08 requirements and tests

(Section 6.3.2 Determination of phthalate content)

DIN EN 71-3 Safety of Toys - Part 3: Migration of certain elements

2018-08

DIN EN ISO 14372 Child use and care articles - Cutlery and feeding utensils - Safety

2004-11 requirements and tests

(Section 6.3.2 Determination of phthalate content)

BS EN ISO 14372 Child use and care articles - Cutlery and feeding utensils - Safety

2006-08 requirements and tests

(Section 6.3.2 Determination of phthalate content)

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AfPS GS 2014:01 PAK 2014-08	Product Safety Commission (AfPS) GS Specification: Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of awarding the GS mark- Specification pursuant to article 21(1) no. 3 of the Product Safety Act (ProdSG) (Limitation: <i>only performance of the physico-chemical and chemical tests</i>)
AFPS GS 2019:01 PAK 2019-05	Product Safety Commission (AfPS) GS Specification: Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of awarding the GS mark- Specification pursuant to article 21(1) no. 3 of the Product Safety Act (ProdSG) (Limitation: <i>only performance of the physico-chemical and chemical tests</i>)
CTS-HL-206-5 2018-03	Determination of Polycyclic Aromatic Hydrocarbons (PAHs) Content in plastic, rubber type samples & chemical formulations
CTS-HL-233-1 2011-08	N,N-Dimethylformamide, N-Methylformamide, Acetophenone, 2-Phenyl-2-propanol and Formamide in Polyethylene (PE), Polystyrene (PS), Polyurethane (PU) and Ethylene-Vinyl Acetate (EVA) by GC-MS
CTS-HL-305-1 2008-07	Determination of primary aromatic amines content in toy materials by GC-MS analysis
CTS-HL-308-1 2008-07	Determination of leachable solvent in toys and toy components by head-space GC-MS analysis
CTS-HL-309-1 2011-02	Determination of plasticizers (Triphenylphosphate, Tri-o-cresyl phosphate, Tri-m-cresyl phosphate, Tri-p-cresyl phosphate) (migration) in polymeric toy materials by GC-MS analysis
CTS-HL-310-1 2008-07	Determination of solvent (inhalation) content in toy and toy accessories by thermal desorption GC-MS analysis
CTS-HL-311-1 2008-07	Determination of monomers released (Styrene) in toy by GC-MS
CTS-HL-313-1 2008-07	Determination of solvent (inhalation) content in toy materials by head- space GC-MS analysis

3.8 Determination of preservatives in toys using GC-ECD

CTS-HL-307-1 Determination of wood preservatives in wooden toy materials by 2008-07 GC-ECD analysis

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3.9 Organic Hazardous Substances in Toy using High Performance Liquid Chromatography with diode-array detection (HPLC-DAD)

CTS-HL-302-1 2008-07	Determination of monomers released (Phenol, Bisphenol A, Acetophenone, Acrylamide, Formaldehyde) in toy by HPLC-DAD analysis
CTS-HL-303-1 2008-07	Determination of preservatives in toy materials by HPLC-DAD analysis
CTS-HL-304-1 2008-07	Determination of free formaldehyde (preservatives) in toy materials by HPLC-DAD analysis

3.10 Organic Hazardous Substances in Toys using High Performance Liquid Chromatography - Mass Spectrometer Detector (HPLC-MS)

CTS-HL-306-1 2008-07	Determination of flame retardants in toy materials by LC-MS analysis
EN 71-12 2016-12	Safety of toys - Part 12: N-Nitrosamines and N-nitrosatable substances
DIN EN 71-12 2016-12	Safety of toys - Part 12: N-Nitrosamines and N-nitrosatable substances
BS EN 71-12 2016-12	Safety of toys - Part 12: N-Nitrosamines and N-nitrosatable substances
CTS-HL-301-1 2008-07	Determination of colorants in toy materials by LC-MS analysis

3.11 Determination of colour fastness in Toy

ISO 105-E04	Textile - Tests for colour fastness - Part E04: Colour fastness to
2013-03	perspiration

3.12 Organic Hazardous Substances in Toys using pH meter

ISO 787-9	General methods of test for pigments and extenders –
2019-03	Part 9: Determination of pH value of an aqueous suspension

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4 Determination of the Emission of Volatile Organic Compounds (VOCs) and Formaldehyde N-Nitrosamines and N-Nitrosatable Substances from Textiles, Leather Products, Toys, Wood, Electrical and Electronic Equipment and Automotive Parts

ASTM D 1475 2013-01	Standard test method for density of liquid coatings, Inks, and related products
ASTM D 2369 2020-07	Standard test method for volatile content of coatings
ASTM D 3792 2016-01	Determination of water content in paints and printing inks using GC/TCD method
ASTM D 4017 2015-01	Standard test method for water in paints and paint materials by Karl Fischer Method
ASTM D 5582 2014-08	Determination of formaldehyde level from wood products using a desiccator
ASTM D6007 2014-01	Determination of formaldehyde concentration in air from wood products using small scale chamber (Modifications: 1) Pre-conditioning with reference to ASTM E 1333-14; - 2) Colour developing agent with reference to GB/T 18204-26-2000)
CARB Method 310 2005-05	Determination of volatile organic compounds (VOC) in consumer products and reactive organic compounds in aerosol coating products
	products and reactive organic compounds in aerosol coating
2005-05 EPA 24	products and reactive organic compounds in aerosol coating products Determination of volatile matter content, water content, density,
2005-05 EPA 24 1993-08 EPA 24A	products and reactive organic compounds in aerosol coating products Determination of volatile matter content, water content, density, volume solid, and weight solids of surface coating Determination of volatile matter content and density of publication
2005-05 EPA 24 1993-08 EPA 24A 1996-05 CTS-HL-103-1	products and reactive organic compounds in aerosol coating products Determination of volatile matter content, water content, density, volume solid, and weight solids of surface coating Determination of volatile matter content and density of publication rotogravure inks and related publication rotogravure coatings Determination of ammonium Ion in aqueous consumer products using
2005-05 EPA 24 1993-08 EPA 24A 1996-05 CTS-HL-103-1 2008-10 CTS-HL-218-1	products and reactive organic compounds in aerosol coating products Determination of volatile matter content, water content, density, volume solid, and weight solids of surface coating Determination of volatile matter content and density of publication rotogravure inks and related publication rotogravure coatings Determination of ammonium Ion in aqueous consumer products using ion chromatography Determination of Low Vapor Pressure - Volatile Organic Compounds

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CTS-HL-219-2 2011-05	Determination of exempt compounds in non-propellant portion of consumer product by GC-MS analysis
CTS-HL-518-5 2016-06	Migration of N-Nitrosamines and N-Nitrosatable Substances in Balloons and Elastomers by LC-MS/MS
CTS-HL-804-1 2011-05	Determination of exempt compounds in paint and ink by GC-MS analysis
CTS-HL-902-1 2008-06	Determination of density of aerosol consumer product propellant by digital density meter
CTS-SL-220-1 2016-07	Determination of Volatile Organic Compounds (VOCs) in plastic and textile material by Headspace GCMS
CTS-SL-222-5 2008-02	Determination of VOC Emission in textiles, leather and plastic materials by Emission Chamber Method
SCAQMD 316A-92 1996-10	Determination of volatile Organic Compounds (VOC) in Materials Used for Pipes and Fittings

5 Selected Tests of Automotive Parts

ISO 3613 2006-06	Chromate conversion coatings on zinc, cadmium, aluminum-zinc alloys and zinc-aluminum alloys - Test methods
ISO 17075-1 2017-02	Leather - Chemical determination of chromium(VI) content in leather - Part 1: Colorimetric method
ISO 17075-2 2017-02	Leather - Chemical determination of chromium(VI) content in leather - Part 2: Chromatographic method
EN ISO 3613 2001-08	Chromate conversion coatings on zinc, cadmium, aluminum-zinc alloys and zinc-aluminum alloys - Test methods
EN 1122 Method B 1996-04	Plastics - Determination of cadmium - Wet decomposition method
DIN EN 1122 Method B 2001-05	Plastics - Determination of cadmium - Wet decomposition method
BS EN ISO 3613 2001-09	Chromate conversion coatings on zinc, cadmium, aluminum-zinc alloys and zinc-aluminum alloys - Test methods

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BS EN 1122 2001-05	Plastics - Determination of cadmium - Wet decomposition method
IEC 62321-2 2013-06	Determination of certain substances in electrotechnical products- Part 2: Disassembly, disjointment and mechanical sample preparation
IEC 62321-3.1 2013-06	Determination of certain substances in electrotechnical products- Part 3-1: Screen-Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry
IEC 62321-4 2013-06 + AMD1:2017	Determination of certain substances in electrotechnical products- Part 4: Mercury in polymers, metals and electronics by CV-AFS, CV-AAS, ICP-OES and ICP-MS (Limitation: <i>Applied only for</i> ICP-OES and ICP-MS)
IEC 62321-5 2013-06	Determination of certain substances in electrotechnical products- Part 5: Cadmium, lead and chromium in polymers and electronics and Cadmium and lead in metals by AAS, AFS, ICP-OES and ICP-MS (Limitation: <i>Applied only for Flame-AAS, ICP-OES and ICP-MS</i>)
IEC 62321-6 2015-06	Determination of certain substances in electrotechnical products - Part 6: Polybrominated biphenyls and polybrominated diphenyl ethers in polymers by gas chromatography -mass spectrometry (GC-MS)
IEC 62321-7.1 2015-09	Determination of certain substances in electrotechnical products - Part 7-1: Hexavalent chromium - Presence of hexavalent chromium (Cr(VI)) in colourless and coloured corrosion-protected coatings on metals by the colorimetric method
IEC 62321-7.2 2017-03	Determination of certain substances in electrotechnical products - Part 7-2: Hexavalent chromium - Determination of hexavalent chromium (Cr(VI)) in colourless and coloured corrosion-protected coatings on metals by the colorimetric method
IEC 62321-8 2017-03	Determination of certain substances in electrotechnical products - Part 8: Phthalates in polymers by gas chromatography-mass spectrometry (GC-MS), gas chromatography-mass spectrometry using a pyrolyzer/thermal desorption accessory (Py/TD-GC-MS) (Limitation: <i>Applied only for GC-MS</i>)
EPA 3051A 1998-01	Microwave assisted acid digestion of sediments, sludges, soils and oils (Limitation: Applied only for plastics)

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EPA 3052 1996-02	Microwave assisted acid digestion of siliceous and organically based matrices
EPA 3060A 1996-02	Alkaline digestion for hexavalent chromium

6 Selected Chemical Tests of Foodstuff

Food.009 2018-04	Gravimetric Determination of ash in food - Muffle furnace method
Food.010 2018-04	Gravimetric determination of moisture in food - Oven drying method
CTS-FD-102-1 2020-06	Heavy metals and toxic elements analyses in general food samples by microwave digestion followed by Inductively Coupled Plasma Mass Spectrometry (ICP/MS) measurement
CTS-FD-215-1 2020-12	Determination of Melamine in Dairy Product by LC-MS/MS
CTS-FD-215-2 2020-12	Melamine in General Food by LC-MS/MS
CTS-FD-244-1 2020-12	Polyaromatic Hydrocarbons (PAH) content in Oil by LC-FLD

Screening of solvents, cleaners, adhesives, paints, Inks, dyes, pigments, auxiliaries and pretreatment agents using Gas Chromatography with mass selective detectors (GC-MS)/High Performance Liquid Chromatography with mass selective Detector (HPLC-MS)/High Performance Liquid Chromatograph - Diode Array Detector (HPLC-DAD) / Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES)

ISO 14389 2014-05	Textiles - Determination of phthalate content - Tetrahydrofuran method (Modification: <i>Applied for Chemical Formulations</i>)
ISO 17070 2015-02	Leather - Chemical tests - Determination of Pentachlorophenol content (Modification: Applied for Chemical Formulations)
ISO 17072-2 2011-02	Leather - Chemical determination of metal content - Part 2: Total metal content (Modification: Applied for Chemical Formulations)

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ISO 17075-1 2017-02	Leather - Chemical determination of chromium(VI) content in leather - Part 1: Colorimetric method (Modification: <i>Applied for Chemical Formulations</i>)
ISO 17075-2 2017-02	Leather - Chemical determination of chromium(VI) content in leather - Part 2: Chromatographic method (Modification: Applied for Chemical Formulations)
ISO 18218-1 2015-06	Leather - Determination of ethoxylated alkylphenols - Part 1: Direct method (Modification: <i>Applied for Chemical Formulations</i>)
ISO 18219 2015-09	Leather - Determination of chlorinated hydrocarbons in leather - Chromatographic method for shortchain chlorinated paraffins (SCCP) (Modification: <i>Applied for Chemical Formulations</i>)
ISO 18254-1 2016-04	Textiles - Method for the detection and determination of alkylphenol ethoxylates (APEO) - Part 1: Method using HPLC-MS (Modification: <i>Applied for Chemical Formulations</i>)
EN ISO 14362-1 2017-02	Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible without extraction (Modification: <i>Applied for Chemical Formulations</i>)
EN ISO 14362-3 2017-02	Textile - Methods for the determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-Aminoazobenzene (Modification: <i>Applied for Chemical Formulations</i>)
EN 16711-1 2015-11	Textiles - Determination of metal content - Part 1: Determination of metals using microwave digestion (Modification: <i>Applied for Chemical Formulations</i>)
DIN EN ISO 17070 2015-05	Leather - Chemical tests - Determination of Pentachlorophenol content
DIN 54231 2005-11	Textiles - Detection of disperse dyestuffs (Modification: <i>Applied for Chemical Formulations</i>)
BS EN ISO 17070 2015-02	Leather - Chemical tests - Determination of Pentachlorophenol content

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CEN/TS 15968 2010-08	Determination of extractable perfluorooctanesulphonate (PFOS) in coated and impregnated solid articles, liquids and fire fighting foams - Method for sampling, extraction and analysis by LC-qMS or LC-tandem/MS (Modification: <i>Applied for Chemical Formulations with</i> LC-MS/MS)
AfPS GS 2014:01 PAK 2014-08	Product Safety Commission (AfPS) GS Specification: Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of awarding the GS mark- Specification pursuant to article 21(1) no. 3 of the Product Safety Act (ProdSG) (Modification: Applied for Chemical Formulations) (Limitation: only performance of the physico-chemical and chemical tests)
AFPS GS 2019:01 PAK 2019-05	Product Safety Commission (AfPS) GS Specification: Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the course of awarding the GS mark- Specification pursuant to article 21(1) no. 3 of the Product Safety Act (ProdSG) (Limitation: <i>only performance of the physico-chemical and chemical tests</i>)
CPSC-CH-C1001-09.3 2010-04	Standard operating procedure for determination of phthalates (Modification: <i>Applied for Chemical Formulations</i>)
CPSC-CH-C1001-09.4 2018-01	Standard operating procedure for determination of phthalates (Modification: <i>Applied for Chemical Formulations</i>)
CTS-HL-206-5 2018-03	Determination of Polycyclic Aromatic Hydrocarbons (PAHs) Content in plastic, rubber type samples & chemical formulations
CTS-SL-104-10 2020-12	Determination of Chromium (VI) content in MRSL substances in various chemical auxiliaries by colorimetric method
CTS-SL-108-6 2020-12	Determination of heavy metal content using microwave digestion for textile, leather, plastics, metal, coating and chemical formulations by ICP/MS
CTS-SL-201-21 2020-12	Detection and Determination of Certain Aromatic Amines Derived from Azo Colorants - Detection of the use of certain azo colorants of chemical formulations by GC/MS and HPLC/DAD
CTS-SL-201-22 2020-12	Detection of the use of certain azo colorants of chemical formulations, which may release 4-aminoazobenzene GC/MS and HPLC/DAD

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CTS-SL-202-4 2020-12	Determination of Allergeneous and Carcinogenic dyestuff in Chemical Formulations by HPLC/MSD
CTS-SL-203-2 2018-04	Determination of the content of extractable Monochlorophenol (MCP), Dichlorophenol (DCP), Trichlorophenol (TCP), Tetrachlorophenol (TeCP) and Pentachlorophenol (PCP), its salts and esters in printed polyester and chemical formulations by alkaline digestion / GC-ECD analysis by in-house method
CTS-SL-204-2 2018-03	Determination of Chlorinated Organic Carriers (COC) in Textile Commodity Article and Chemical Formulations by GC-MS method
CTS-SL-205-1 2020-12	Determination of Organotin Content in Textile, Plastic, Leather and chemical formulations with Extraction Facilitated by Carbamate solution by GC/MS method
CTS-SL-206-10 2020-11	Determination the content of Phthalates (DBP, BBP, DEHP, DINP, DNOP, DIDP, DiBP, DNHP, DEP, DIOP, DMEP, DCHP, DNP and DPrP) in print and chemical formulations
CTS-SL-209-2 2020-12	Determination of Short Chain Chlorinated Paraffin (C10-13) in Textile, Leather and Polymeric Components and chemical formulations by Gas Chromatography - Mass Selective Detector with Negative Chemical Ionization (GC/MS-NCI)
CTS-SL-213-4 2018-06	Determination of Alkylphenol and Alkylphenol Ethoxylates in Chemical Formulations by HPLC-MS
CTS-SL-216-5 2018-06	Determination of Flame retardants in textile, leather, plastic and chemical formulations by GC-MS method
CTS-SL-219-5 2018-06	Determination of extractable Perfluorooctanoic acid (PFOA) and Heptadecafluorooctancesulfonic acid (PFOS) for chemical formulations (eg. aqueous liquid, organic liquid, solid) by HPLC-MS/MS
CTS-SL-220-4 2018-03	Determination of Volatile Organic Compounds (VOCs) and Halogenated Solvents in Chemical formulations by GCMS
CTS-SL-237-1 2018-04	Determination of the content of extractable of ortho-Phenylphenol (OPP), its salts and esters in textiles and chemical formulations by alkaline digestion / GC-MS analysis by in-house method
CTS-SL-270-02 2020-12	CHEMICAL SCREENING (SGS BRS300-2020) for MRSL substances in Various Chemical Auxiliaries with GC-MS, HPLC-DAD/MS, ICP-OES, ICP-MS

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CTS-SL-271-1 2018-03 Determination of Glycols in Chemical formulations by GCMS

8 Selected Bioanalytical methods of Polymeric material for Packaging

ISO 14855 2012-12	Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions - Method by analysis of evolved carbon dioxide - Part 1: General method
EN 13432 2000-09	Packaging - Requirements for packaging recoverable through composting and biodegradation - Test scheme and evaluation criteria for the final acceptance of packaging
ASTM D5338-15 2021	Standard Test Method for Determining Aerobic Biodegradation of Plastic Materials Under Controlled Composting Conditions, Incorporating Thermophilic Temperatures
CTS-EC-111-2 2021-11	Determination of the ultimate aerobic biodegradability of plastic, packaging and packaging materials under controlled composting conditions including the determination of pH, Total Dry Soild, Volatile Solid, Total Organic Carbon and Total Nitrogen using physical-chemical methods
EPA 3052 1996-02	Microwave assisted acid digestion of siliceous and organically based matrices
CTS-EC-111-5 2021-06	Determination of Heavy Metals and Toxic Elements (Zn, Cu, Ni, Cd, Pb, Hg, Cr, Mo, Se and As) content in Plastic and Packaging Materials by using Microwave assisted Digestion
EN 14582 2016-08	Halogen Content (Fluorine, Chlorine, Bromine, Iodine) and Sulfur Content by Oxygen Combustion using Ion Chromatography
ISO 20200 2015-11	Plastics — Determination of the degree of disintegration of plastic materials under simulated composting conditions in a laboratory-scale test

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Abbreviations used:

AfPS Ausschuss für Produktsicherheit

AOAC ASSOCIATION OF OFFICIAL ANALYTICAL COLLABORATION (AOAC) INTERNATIONAL

AS Australian Standard

ASTM American Society for Testing and Materials

ASU Amtliche Sammlung von Untersuchungsverfahren nach § 64 LFGB

BS British Standard

CARB California Environmental Protection Agency - Air Resources Board

CEN/TS Standard of European Committee for Standardization

CPSC U.S. Consumer Product Safety Commission
DIN German Institute for Standardization

EC (EEC) Official Journal of the European Communities

EN European Standard

EPA U.S. Environmental Protection AgencyIEC International Electrotechnical CommissionISO International Organization for Standardization

JIS Japanese Industrial Standards LFGB German Food and Feed Code

SCAQMD South Coast Air Quality Management District, USA
CDXXX SGS Hong Kong Laboratory In-House Test Method
CTS-XX-YYY-Z SGS Hong Kong Laboratory In-House Test Method
FOOD.XXX SGS Hong Kong Laboratory In-House Test Method

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