

ISO 16000-14:2009-05 (E)

Indoor air - Part 14: Determination of total (gas and particle-phase) polychlorinated dioxin-like biphenyls (PCBs) and polychlorinated dibenzo-p-dioxins/dibenzofurans (PCDDs/PCDFs) - Extraction, clean-up and analysis by high-resolution gas chromatography and mass spectrometry

Contents		Page
Foreword		iv
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms, definitions and abbreviated terms	2
4	Principle	5
5	Apparatus and materials	5
6	Analysis	7
7	Minimum requirements for extraction and clean-up	15
8	Identification and quantification	15
9	Quality assurance criteria for the procedure blanks	20
10	Recovery	21
11	Calculation and presentation of results	23
12	Safety measures	23
13	Performance characteristics	24
14	Interferences	26
Annex A (informative) Structure, toxicity and calculation of toxic equivalents		27
Annex B (informative) Example for the clean-up of PCBs/PCDDs/PCDFs and the separation of PCBs from PCDDs/PCDFs		32
Annex C (informative) GC/MS analysis		36
Annex D (informative) Masses of the ions for PCDDs/PCDFs and PCBs		42
Annex E (informative) Interferences		43
Annex F (normative) Calibration solutions for GC/MS calibration		46
Annex G (informative) Standard deviations, detection limits and indoor air concentrations for PCBs		50
Bibliography		52