

# ISO 8124-6:2023-08 (E)

## Safety of toys - Part 6: Certain phthalate esters

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Principle .....	3
5	Reagents .....	3
6	Apparatus .....	4
6.1	General .....	4
6.2	Normal laboratory apparatus .....	4
7	Selection of test portions .....	5
7.1	General .....	5
7.2	Individual test .....	5
7.3	Composite test .....	5
8	Procedure .....	6
8.1	General .....	6
8.2	Sample weighing .....	6
8.2.1	Individual test .....	6
8.2.2	Composite test .....	6
8.3	Extraction .....	6
8.3.1	General .....	6
8.3.2	Method A .....	6
8.3.3	Method B .....	6
8.3.4	Method C .....	7
8.4	Sample solution for analysis .....	7
8.4.1	General .....	7
8.4.2	Quantification by external standard (ES) calibration .....	7
8.4.3	Quantification by IS calibration .....	8
8.5	Determination .....	8
8.5.1	GC-MS conditions .....	8
8.5.2	Identification .....	8
8.5.3	Calibration .....	9
9	Calculation .....	10
9.1	Individual test .....	10
9.1.1	External standard (ES) calculation .....	10
9.1.2	Internal standard (IS) calculation .....	11
9.2	Composite test .....	12
9.2.1	Maximum concentration calculation .....	12
9.2.2	Conformity assessment of the composite test result .....	12
9.2.3	Examples of composite testing .....	13
10	Quality control .....	14

10.1	Limit of quantification (LOQ) .....	14
10.2	Method blank .....	14
10.3	Recovery .....	14
10.4	Calibration check .....	14
11	Precision .....	14
12	Test report .....	14
Annex A (normative) Phthalate esters .....		16
Annex B (informative) Precision of the method .....		17
Annex C (informative) Soxhlet extractor and solvent extractor .....		21
Annex D (informative) Composite test .....		23
Annex E (normative) Ultrasonic bath performance check .....		30
Annex F (informative) Example of GC-MS conditions .....		33
Annex G (informative) Background and rationale .....		37
Bibliography .....		40