

ISO 23322:2021 (E)

Paints and varnishes — Determination of solvents in coating materials containing organic solvents only — Gas-chromatographic method

Contents

	Foreword
1	Scope
2	Normative references
3	Terms and definitions
4	Units
5	Principle
6	Apparatus
6.1	Gas chromatograph
6.1.1	General
6.1.2	Sample injection system
6.1.2.1	General
6.1.2.2	Hot-injection system
6.1.2.3	Cold-injection system
6.1.2.4	Headspace injection
6.1.3	Oven
6.1.4	Detector
6.1.4.1	General
6.1.4.2	Mass spectrometer (MS) or other mass-selective detector (MSD)
6.1.4.3	Flame ionization detector
6.1.5	Capillary separation column
6.1.6	Analytical system performance criteria
6.2	Injection syringe
6.3	Data processing
6.4	Sample vial
7	Reagents
7.1	General
7.2	Internal standard
7.3	Gases
7.4	Calibration substances
7.5	Extraction solvent
8	Sampling
9	Choice of sample injection system
10	Procedure
10.1	Gas chromatographic conditions
10.2	Injection volume
10.3	Calibration
10.3.1	General
10.3.2	Preparation of calibration solutions
10.3.3	Analysis of the multi-point calibration
10.4	Quality assurance
10.5	Sample preparation and analysis
10.5.1	Direct injection
10.5.2	Head space injection

10.5.3	Preparation of test samples for analysis without multiple standard additions
10.5.4	Data acquisition for sample measurement
11	Quantitative determination of compound content with respect to CSRF
12	Expression of results
13	Precision
13.1	Repeatability
13.2	Reproducibility
14	Test report
Annex A	(informative) Examples for GC method conditions
A.1	General
A.2	Example 1: Gas chromatographic conditions for use with hot injection
A.3	Example 2: Gas chromatographic conditions for use with cold injection
A.4	Example 3: Gas chromatographic conditions for use with the headspace injector — with sample loop
A.5	Example 4: Gas chromatographic conditions for use with the headspace injector — with equal-pressure application method

Page count: 13