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STANDARD

14402

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Water quality — Determination of phenol index by flow analysis (FIA and CFA)

Qualité de l'eau — Détermination de l'indice phénol par analyse en flux (FIA et CFA)



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Contents	Page
1 Scope	1
2 Normative references	1
3 Determination of phenol index (without distillation) after extraction	1
3.1 Principle.....	1
3.2 Interferences	1
3.3 Reagents	2
3.4 Apparatus	4
3.5 Sampling.....	6
3.6 Procedure	7
3.7 Calculation of results	8
4 Determination of phenol index (without extraction) after distillation	9
4.1 Principle.....	9
4.2 Interferences	9
4.3 Reagents.....	9
4.4 Apparatus	10
4.5 Sampling.....	13
4.6 Procedure	13
4.7 Calculation of results	14
5 Expression of results	14
6 Precision and accuracy.....	14
7 Test report	14
Annex A (informative) Statistical data.....	15
Bibliography	17

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 14402 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical biochemical methods*.

Annex A of this International Standard is for information only.

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Introduction

Methods for determination of water quality using flow analysis and automatic wet chemical procedures are particularly suitable for the processing of large sample series at a high analysis frequency.

Differentiation is needed between flow injection analysis (FIA) [1, 2] and continuous flow analysis (CFA) [3]. Both methods include automatic dosage of the sample into a flow system (manifold) where the analytes in the sample react with the reagent solutions on their way through the manifold. The sample preparation may be integrated in the manifold. The reaction product is measured in a flow detector.

Phenol index is an analytical convention. It represents a group of aromatic compounds which under the specific reaction conditions form coloured condensation products. The analytical result is expressed in terms of phenol concentration.

This International Standard describes two methods: the determination of phenol index (without distillation) after extraction, and the determination of phenol index (without extraction) after distillation.

It should be investigated whether and to what extent particular problems will require the specification of additional marginal conditions.