Water quality — Determination of highly volatile halogenated hydrocarbons — Gas-chromatographic methods

Qualité de l'eau — Dosage des hydrocarbures halogénés hautement volatils — Méthodes par chromatographie en phase gazeuse
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International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet central@iso.ch
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SECTION 3: Static headspace method and analysis by gas chromatography

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Foreword

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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 10301 was prepared by Technical Committee ISO/TC 147, Water quality, Subcommittee SC 2, Physical, chemical and biochemical methods.

Annexes A to G of this International Standard are for information only.
Introduction

Highly volatile halogenated hydrocarbons are used in industrial, commercial and domestic fields, and can enter a water body via waste water and may consequently contaminate drinking water. Furthermore, they can originate from the use of chlorine as an oxidizing agent in water and waste-water treatment. They also can be introduced by inappropriate handling. In addition, they can be formed by decomposition of higher molecular mass organohalogen derivatives.

In uncontaminated ground water and rain water, the concentrations of halogenated hydrocarbons are generally below 0,1 µg/l. In surface water they may be higher, depending on the origin and quality of the water. In untreated waste water the concentrations may reach saturation of the aqueous phase. In general, the solubility of these compounds in organic solvents and in fatty material exceeds their solubility in water.