

STN	Kvalita vody Stanovenie genotoxicity vody a odpadovej vody Salmonella/mikrozóm fluktučná skúška (Amesov fluktučný test) (ISO 11350: 2012)	STN EN ISO 11350 75 7858
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Water quality - Determination of the genotoxicity of water and waste water - Salmonella/microsome fluctuation test (Ames fluctuation test) (ISO 11350:2012)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/25

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EUROPEAN STANDARD

EN ISO 11350

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English Version

**Water quality - Determination of the genotoxicity of water
and waste water - Salmonella/microsome fluctuation test
(Ames fluctuation test) (ISO 11350:2012)**

Qualité de l'eau - Évaluation de la génotoxicité des eaux
résiduelles - Essai de Salmonella/microsome (essai
d'Ames-fluctuation) (ISO 11350:2012)

Wasserbeschaffenheit - Bestimmung der Gentoxizität
von Wasser und Abwasser - Verfahren mittels
Salmonella/Microsomen-Fluktuationstest (Ames-
Fluktuationstest) (ISO 11350:2012)

This European Standard was approved by CEN on 4 August 2025.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 11350:2025 (E)

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European foreword

The text of ISO 11350:2012 has been prepared by Technical Committee ISO/TC 147 "Water quality" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11350:2025 by Technical Committee CEN/TC 230 "Water analysis" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2026, and conflicting national standards shall be withdrawn at the latest by February 2026.

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Endorsement notice

The text of ISO 11350:2012 has been approved by CEN as EN ISO 11350:2025 without any modification.

INTERNATIONAL STANDARD

ISO
11350

First edition
2012-05-15

Water quality — Determination of the genotoxicity of water and waste water — Salmonella/microsome fluctuation test (Ames fluctuation test)

*Qualité de l'eau — Évaluation de la génotoxicité des eaux résiduaires —
Essai de Salmonella/microsome (essai d'Ames-fluctuation)*



Reference number
ISO 11350:2012(E)

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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ISO 11350:2012(E)**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 2.

The main task of technical committees is to prepare International Standards. 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.

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ISO 11350 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 5, *Biological methods*.

Water quality — Determination of the genotoxicity of water and waste water — *Salmonella*/microsome fluctuation test (Ames fluctuation test)

WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

IMPORTANT — It is absolutely essential that tests conducted according to this International Standard be carried out by suitably trained staff.

1 Scope

This International Standard specifies a method for the determination of the genotoxic potential of water and waste water using the bacterial strains *Salmonella enterica* subsp. *enterica* serotype Typhimurium TA 98 and TA 100 in a fluctuation assay. This combination of strains is able to measure the genotoxicity of chemicals that induce point mutations (base pair substitutions and frameshift mutations) in genes coding for enzymes that are involved in the biosynthesis of the amino acid, histidine.

NOTE 1 ISO 13829^[8] applies for the measurement of genotoxicity of samples containing DNA-crosslinking agents.

This method is applicable to:

- fresh water;
- waste water;
- aqueous extracts and leachates;
- eluates of sediments (fresh water);
- pore water;
- aqueous solutions of single substances or of chemical mixtures;
- drinking water.

NOTE 2 When testing drinking water, extraction and pre-concentration of water samples can prove necessary.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 7027, *Water quality — Determination of turbidity*

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