
**Soil quality — Determination of
dehydrogenases activity in soils —**

Part 2:
**Method using iodotetrazolium
chloride (INT)**

AMENDMENT 1

(standards.itoh.ai)

*Qualité du sol — Détermination de l'activité des déshydrogénases
dans les sols —*

ISO 23753-2:2019/Amd 1:2020

Partie 2: Méthode au chlorure de iodotétrazolium (INT)

[https://standards.itoh.ai/catalog/standards/sist/6d55dc47-1ed2-437e-b959-](https://standards.itoh.ai/catalog/standards/sist/6d55dc47-1ed2-437e-b959-e7cfe5b1e7c1/iso-23753-2-2019-amd-1-2020)

[e7cfe5b1e7c1/iso-23753-2-2019-amd-1-2020](https://standards.itoh.ai/catalog/standards/sist/6d55dc47-1ed2-437e-b959-e7cfe5b1e7c1/iso-23753-2-2019-amd-1-2020)

AMENDMENT 1



iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO 23753-2:2019/Amd 1:2020](https://standards.iteh.ai/catalog/standards/sist/6d55dc47-1ed2-437e-b959-e7cfe5bb9b66/iso-23753-2-2019-amd-1-2020)

<https://standards.iteh.ai/catalog/standards/sist/6d55dc47-1ed2-437e-b959-e7cfe5bb9b66/iso-23753-2-2019-amd-1-2020>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 4, *Biological characterization*.

A list of all parts in the ISO 23753 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 23753-2:2019/Amd 1:2020](https://standards.iteh.ai/catalog/standards/sist/6d55dc47-1ed2-437e-b959-e7cf55bb9b66/iso-23753-2-2019-amd-1-2020)

<https://standards.iteh.ai/catalog/standards/sist/6d55dc47-1ed2-437e-b959-e7cf55bb9b66/iso-23753-2-2019-amd-1-2020>

Soil quality — Determination of dehydrogenases activity in soils —

Part 2: Method using iodotetrazolium chloride (INT)

AMENDMENT 1

Clause 9

Replace the text with the following:

The standard curve is plotted for INTF concentration (nmol/ml) versus absorbance. The concentration of INTF produced are determined with the linear model of the standard curve (nmol/ml) and then the dehydrogenases activity (A) calculated with [Formula \(1\)](#):

$$A = \frac{(C_s - C_b) \times V \times 100}{m \times DM \times RT} \quad (1)$$

where

iTeh STANDARD PREVIEW
(standards.iteh.ai)

A is the enzymatic activity in mU/g of each dry sample replicate (nmol/(min·g) of dry sample);

C_s is the concentration of INTF formed in sample replicates in nmol/ml;

C_b is the concentration of INTF formed in control tube in nmol/ml;

V is the reaction volume [= volume of substrate or buffer solution (2 ml or 5 ml) + volume of acetone (8 ml or 20 ml)], in ml;

RT is the reaction time (min);

m is the soil mass per tube, in g;

DM is the sample dry matter content in accordance with ISO 11465, as percentage.

NOTE The factor 100 in [Formula \(1\)](#) is needed because DM is given as percentage.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 23753-2:2019/Amd 1:2020

<https://standards.iteh.ai/catalog/standards/sist/6d55dc47-1ed2-437e-b959-e7cfe5bb9b66/iso-23753-2-2019-amd-1-2020>