

INTERNATIONAL
STANDARD

ISO
11074

NORME
INTERNATIONALE

Second edition
Deuxième édition
2015-05-01

Soil quality — Vocabulary

Qualité du sol — Vocabulaire

Bodenbeschaffenheit — Wörterbuch



Reference number
Numéro de référence
ISO 11074:2015(E/F)

© ISO 2015



**COPYRIGHT PROTECTED DOCUMENT
DOCUMENT PROTÉGÉ PAR COPYRIGHT**

© ISO 2015

All rights reserved. Unless otherwise specified, 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.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie, l'affichage sur l'internet ou sur un Intranet, sans autorisation écrite préalable. Les demandes d'autorisation peuvent être adressées à l'ISO à l'adresse ci-après ou au comité membre de l'ISO dans le pays du demandeur.

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

Published in Switzerland/Publié en Suisse

Contents

Page

Foreword	v
1 Scope	1
2 General terms and definitions	1
2.1 Terms and definitions relating to soil	1
2.2 Terms and definitions relating to soil materials	4
2.3 Terms and definitions relating to land and sites	5
3 Description of soil	7
3.1 Soil characteristics.....	7
3.2 Terms and definitions relating to soil water	8
3.3 Terms and definitions relating to processes in soils	9
3.4 Terms and definitions relating to contamination	12
3.5 Terms and definitions relating to background content	15
3.6 Terms and definitions relating to sampling gases	17
4 Sampling	18
4.1 General terms and definitions	18
4.2 Sample types/sampling type	22
4.3 Sampling stages.....	25
4.4 Execution of sampling.....	27
4.5 Quality control samples.....	30
4.6 Sample pretreatment.....	32
4.7 Terms and definitions relating to geostatistics	32
5 Terms and definitions relating to the assessment of soils	33
5.1 Terms and definitions relating to quality.....	33
5.2 Terms and definitions relating to assessment of soil and sites with respect to risk, hazard, and exposure.....	34
5.3 Terms and definitions relating to soil protection.....	37
6 Remediation	37
6.1 General terms and definitions	37
6.2 Principal remediation types	40
6.3 Engineering-based methods	40
6.4 Process-based treatment methods	42
7 Soil ecotoxicology	47
7.1 Biodegradability	47
7.2 Soil fauna.....	49
7.3 Soil flora	50
7.4 Soil microorganisms.....	50
Annex A (informative) Relationships between sampling operations	53
Annex B (informative) Index	54
Bibliography	72

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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 190, *Soil quality*, Subcommittee SC 1, *Evaluation of criteria, terminology and codification*.

This second edition cancels and replaces the first edition (ISO 11074:2005), which has been technically revised.

Soil quality — Vocabulary

1 Scope

This International Standard defines a list of terms used in the preparation of the standards in the field of soil quality.

The terms are classified under the following main headings:

- general terms (terms relating to soil, soil materials, land, and sites);
- description of soil (soil characteristics, soil water, properties of soils and substances, processes in soil, contamination, pollution, background content);
- sampling (general terms, sample types/sampling type, sampling stages, execution of sampling, quality control samples, sample pretreatment);
- terms relating to the assessment of soils (quality, assessment of soil and sites with respect to risk, hazard and exposure, soil protection);
- remediation (general terms, principal remediation types, engineering-based methods, process-based treatment methods);
- soil ecotoxicology.

NOTE See also the ISO online browsing platform (OBP): www.iso.org/obp/ui/

2 General terms and definitions

2.1 Terms and definitions relating to soil

2.1.1

aerobic

descriptive of a condition with molecular oxygen available

2.1.2

anaerobic

descriptive of a condition with no molecular oxygen available

2.1.3

available water capacity

soil water content usable by plants based on the effective root penetration depth

Note 1 to entry: The usable field capacity in the effective root zone is expressed in mm water column.

Note 2 to entry: The available water capacity (AWC) is generally taken to be the water content between field capacity (FC) and the permanent wilting point (PWP) or 10 kilopascals to 1 500 kilopascals. See readily available water capacity.

2.1.4

dissolved organic carbon

DOC

concentration of organic carbon remaining in solution after filtration and/or centrifugation under defined conditions

Note 1 to entry: It is expressed in mg/l, g/m³.