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Kakovost tal - Slovar (ISO 11074:2015)

Soil quality - Vocabulary (ISO 11074:2015)

Bodenbeschaffenheit - Wörterbuch (ISO 11074:2015)

Qualité du sol - Vocabulaire (ISO 11074:2015)

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Soil quality - Vocabulary (ISO 11074:2015)

Qualité du sol - Vocabulaire (ISO 11074:2015)

Bodenbeschaffenheit - Wörterbuch (ISO 11074:2015)

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Foreword

This document (EN ISO 11074:2015) has been prepared by Technical Committee ISO/TC 190 “Soil quality” in collaboration with Technical Committee CEN/TC 345 “Characterization of soils” the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by December 2015, and conflicting national standards shall be withdrawn at the latest by December 2015.

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Soil quality — Vocabulary

Qualité du sol — Vocabulaire

Bodenbeschaffenheit — Wörterbuch

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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.

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).

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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/m^3.

2.1.5
field capacity
maximum water content expressed in percent (w/w or v/v) that an unsaturated soil can retain against gravity under undisturbed soil conditions (conventionlly stated as water content two days to three days after full saturation with water)

Note 1 to entry: Conventionally stated as water content 48 h after saturation under conditions of free drainage.

2.1.6
humus
total of all dead plant and animal substances and their organic transformation products, as well as organic material inserted through anthropogenic activities appearing in and on mineral soil

Note 1 to entry: Living plants and soil organisms, as well as coal, are not counted among humus but are often methodically not separatable.

2.1.7
organic carbon
summarizing parameter including all of the carbon forms for dissolved (DOC: dissolved organic carbon – see 2.1.4) and total organic compounds (TOC: total organic carbon- see 2.1.22)

Note 1 to entry: Organic carbon is not synonymous with organic matter content (see 2.1.8).

2.1.8
organic matter
matter consisting of plant and/or animal organic materials, and the conversion products of those materials

EXAMPLE Humus.

2.1.9
parent material
unweathered inorganic solid or unconsolidated rock from which soil developed or originated

Note 1 to entry: It can include material from alluvial, colluvial, and aeolian origins.

2.1.10
perched groundwater
groundwater above a non-saturated zone

2.1.11
soil
upper layer of the Earth's crust transformed by weathering and physical/chemical and biological processes and composed of mineral particles, organic matter, water, air, and living organisms organized in generic soil horizons

Note 1 to entry: In a broader civil engineering sense, soil includes topsoil and sub-soil; deposits such as clays, silts, sands, gravels, cobbles, boulders, and organic matter and deposits such as peat; materials of human origin such as wastes; ground gas and moisture; and living organisms.

2.1.12
soil characterization
determination of relevant physical, chemical, and biological properties of the soil

2.1.13
soil gas
gas and vapour in the pore spaces of soils

2.1.14
soil pores
part of the soil volume, between the solid particles of the soil

2.1.15
soil quality
all current positive or negative properties with regards to soil utilization and soil functions

2.1.16
soil reaction
characterizing property of the acid base state of soils, which is determined through hydrogen ion concentration of a soil extraction performed under defined conditions

Note 1 to entry: The pH value is stated as negative 10-logarithm of the concentration of hydrogen ions and expressed in moles/l in aqueous solution.

2.1.17
soil structure
arrangement of particles and organic matter to form aggregates which produce macro structures and micro structures in the soil

2.1.18
soil texture
relative proportions of the various particle size fractions (i.e. sand, silt, clay) in a soil, according to a soil classification system

2.1.19
standard soil
field-collected soil or manufactured soil whose main properties (e.g. pH, texture, organic matter content) are within a known range

EXAMPLE Euro-soils, artificial soil, LUFA standard soil.

Note 1 to entry: The properties of standards soils might differ from the test soil.

2.1.20
subsoil
natural soil material below the topsoil and overlying the parent material

Note 1 to entry: All or much of the original rock structure has usually been obliterated by pedogenic processes.

2.1.21
topsoil
upper part of a natural soil that is generally dark coloured and has a higher content of organic matter and nutrients when compared to the (mineral) horizons below, excluding the humus layer

Note 1 to entry: For arable land, topsoil refers to the ploughed soil depth, while for grassland; it is the soil layer with high root content.

2.1.22
total organic carbon
TOC
all carbon present in organic matter

2.1.23
wilting point
water content of the soil below which the plants are not able to uptake water with their root system

Note 1 to entry: Permanent wilting point (PWP) is the moisture content below which a sunflower seedling cannot recover from wilt. It is generally taken to equal a suction of 1 500 kilopascals.

2.2 Terms and definitions relating to soil materials

2.2.1
construction works
applications where soil materials are not required to have a direct productive use although they can support other layers intended to have a productive use

[SOURCE: for example, earthworks (e.g. embankments), landscape engineering, road construction, construction of waste disposal sites, and back filling of excavated sites or mines]

2.2.2
damaged land
degraded land
land which, due to natural processes or human activity, is no longer able to properly sustain an economic function and/or the natural or near natural ecological function

2.2.3
degraded soil
soil whose natural properties and soil functions or productivity have been damaged by contamination or physical or other processes

2.2.4
dredged material
material excavated during e.g. maintenance, construction, reconstruction, and extension measures from waters

Note 1 to entry: Dredged material might consist of

— sediments or subhydric soils, and

— soils and their parent material beneath the surface water body.

2.2.5
earthwork
reuse of soil material for civil engineering and construction purposes

Note 1 to entry: The same word can also refer to the material accumulated during an operation of earthwork.

2.2.6
excavated soil
soil material extracted from the ground

EXAMPLE Topsoil, subsoil, altered parent rock, typically arising during construction works.

2.2.7
fill material
made ground
mixed natural soil materials (often displaced) and can contain wastes such as building rubble, timber, and other wastes coming from urban and industrial sites

2.2.8
harm
measurable adverse effect on a receptor

2.2.9
manufactured soil
manufactured product intended to perform specified soil functions produced by blending combinations of natural, waste, or other soil materials with the addition of nutrients or other additives, when necessary

2.2.10
natural soil material
material coming from soil that has been displaced

2.2.11
reclamation
rehabilitation
return of damaged, degraded, or derelict land to a beneficial use

Note 1 to entry: The term remediation is commonly reserved for the process of dealing with contaminated/polluted sites.

2.2.12
reuse of soil material
useful and harmless utilization of soil materials

Note 1 to entry: Reuse can mean the transfer of soil materials to another location for use in agriculture, horticulture, forestry, gardens, recreational areas, and construction sites.

2.2.13
sediment
solid material, both mineral and organic, that is in suspension or has been moved from its site of origin by water or other processes

2.2.14
stockpile
temporary deposit of soil material

Note 1 to entry: Stockpiles can contain soil material.

Note 2 to entry: The soil material can be stored in a loosely dumped heap or can be lying in a predefined deposit above or below the surface of the location, etc.

2.2.15
subhydric soils
soils formed below water or which are formed on parent material that was deposited in water or through alluvial processes

2.2.16
treated soil
soil subject to a based *ex situ* or *in situ* process

2.2.17
treated soil material
material coming from treated soil and displaced and/or modified by human activity

2.3 Terms and definitions relating to land and sites

2.3.1
abandoned hazardous site
hazardous site left by the owner or other responsible party in unmanaged condition

2.3.2
abandoned industrial site
industrial site left by the owner or other responsible party in unmanaged condition

2.3.3
abandoned potentially hazardous site
abandoned site whose history leads to a suspicion that it can be hazardous

2.3.4
abandoned waste disposal site
waste disposal site left by the owner or other responsible party in unmanaged condition