

HJ

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Soil environment - Vocabulary (English Translation)

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Table of Contents

Foreword

1 Scope

2 General terms and definitions

3 Soil description

4 Soil sampling

5 Soil monitoring and assessment

6 Soil remediation and risk management

7 Soil ecotoxicology

Appendix A (Informative Appendix) Chinese Pinyin Index

Appendix B (Informative Appendix) Index of English Corresponding Words

1 Scope of application

This standard specifies the basic terms and definitions related to the soil environment.

This standard applies to soil description, soil sampling, soil monitoring and evaluation, soil remediation and risk management and control, and soil ecotoxicology.

Commonly used terms and definitions.

2 General terms and definitions

soil soil

A complex of loose porous material layers capable of growing plants on the surface of the land and its associated physical and geographic elements.

soil quality

An umbrella term for soil properties related to soil use and function. It measures and reflects the characteristics, functions and changes of soil resources and the environment.

The comprehensive sign is the comprehensive manifestation and quantity of the soil's ability to perform, maintain or improve its productivity, vitality and environmental purification under normal stress conditions.

Spend.

soil structure

The arrangement and combination of aggregates formed by soil mineral particles and

organic matter, including aggregates, agglomerates, blocks, prisms,, Columnar and flaky, etc.

soil texture

Coarseness according to the composition of the relative content of minerals of different particle sizes in the soil.

soil pores

The empty space between soil solid particles.

Soil pH soil reaction Characterizing the properties of soil acid-base state, it is determined by measuring the hydrogen ion concentration of soil extract under specific conditions.

soil fertility

The ability of soil to provide and coordinate nutrients and environmental conditions for normal plant growth.

soil biodiversity

The overall diversity and variability of soil organisms and the systems they comprise.

environmental fate analysis Analysis of pollutants released into the environment, their migration, transformation, accumulation and other processes.

sensitive target of soil environment Sensitive areas or objects related to the soil environment that may be affected by human activities.

Contaminant of concern According to the pollution characteristics of the plot, the requirements of relevant standards and regulations, and the opinions of the stakeholders of the plot, it is determined that soil pollution status investigation and Contaminants for soil contamination risk assessment.

source

An area where the release of a substance or preparation results in one or more receptors (5.6) being at risk of potential exposure.

receptor

It generally refers to the population or biological groups in the plot and its surrounding environment that may be affected by pollutants, and it can also generally refer to the affected functions around the plot.

Water bodies and natural and human landscapes.

sensitive receptor

Receptors most sensitive to pollutants among potential taxa affected by land pollutants.

risk analysis

Use available information to identify hazards and characterize their risk.

risk assessment

The process of analyzing and evaluating human and environmental damage in polluted areas, generally including the nature, extent, and probability of the damage.

noodle.

5.10

pollutant release assessment an assessment of the likelihood and rate of release of pollutants based on pollutant characteristics and site characteristics.

5.11

quantitative risk assessment Using data from field surveys, using databases and numerical models of pollutant releases, environmental risk analysis, exposure assessment (5.12), environmental Environmental impact analysis and uncertainty analysis (5.21), evaluation of risk.

5.12

exposure assessment

The process of determining how and to what extent a recipient is exposed to a source of contamination.

5.13

carcinogenic risk

The probability that a population is exposed to a unit dose of carcinogenic effect pollutants daily to induce carcinogenic diseases or hazards.

5.14

non-carcinogenic risk the ratio of the daily ingested dose of a pollutant to the reference dose used to characterize the harm caused by exposure to a non-carcinogenic pollutant through a single route level, usually expressed as a hazard quotient.

5.15

hazard identification According to the data obtained from the soil pollution status survey, combined with the land (planning) utilization method of the plot, determine the pollutants, land Spatial distribution of pollutants within the block and possible sensitive receptors such as children, adults, ecosystems, groundwater bodies, etc.

5.16

toxicity assessment

Based on the work of hazard identification, analyze the harmful effects of the pollutants of interest on sensitive receptors, and determine the toxicity related to the pollutants of interest parameter.

5.17

risk characterization Integrate the results of exposure and toxicity assessments to quantify and spatially characterize risk, and discuss assumptions, the process of parameter and model uncertainty.

5.18

human health risk assessment the process of predicting the likelihood of harmful effects of environmental pollutants on human health.

5.19

ecological risk assessment Apply quantitative methods to assess and predict the possible risks of various environmental pollutants to biological systems and assess the risk acceptability.

pattern or method.

5.20

acceptable risk level A level of risk that will not produce adverse or detrimental health effects on sensitive receptors.

5.21

uncertainty analysis the comprehensive analysis and evaluation of the uncertainty factors in the risk assessment process is called uncertainty analysis. Inaccurate results of land risk assessment Qualitative analysis is mainly to analyze the model simulation results caused by the input parameter error and the uncertainty of the model itself in the process of land risk assessment.

Qualitative or quantitative analysis of uncertainty, including risk contribution rate analysis and parameter sensitivity analysis, etc.

5.22

soil contamination risk of agricultural land the quality and safety of edible agricultural products, crop growth or soil ecological environment are adversely affected due to soil pollution.

5.23

risk screening values for soil contamination of agricultural land If the content of pollutants in