

HJ

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Chemical substances environmental management - Terminology for testing of chemical substances

化学物质环境管理 化学物质测试术语

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1 Scope of application

This standard specifies the chemical substance testing terms and definitions commonly used in the environmental risk assessment of chemical substances.

This standard applies to the terminology used in the testing of chemical substances in the field of environmental risk management of chemical substances.

2.1 General terms

2.1.1

test substances

The single chemical substance or mixture being tested.

2.1.2

Poorly water-soluble substances Substances with a solubility in water of less than 0.1 g/L at 20 °C.

2.1.3

Substances of unknown or variable composition, complex reaction products or biological materials; UVCB Substances, complex reaction products, or biological materials of unknown or variable composition.

2.1.4

difficult test chemicals Chemical substances in testing that are difficult to test by

conventional standardized methods. It is mainly manifested that the conventional processing methods are not applicable, etc., which can be passed through Valid test results are obtained by partially modifying or supplementing standard test methods.

2.1.5

test organisms

Test animals, plants, microorganisms, etc. in the system. Also called test organism.

2.1.6

test solution

The mixture formed by a medium such as water or culture medium in which the test substance is dissolved or suspended and the test substance.

2.1.7

parent animals

In a breeding trial, the parent used for breeding at the start of the test is tested.

2.1.8

offspring

In breeding experiments, larvae produced by the parent.

2.1.9

loading rate

When preparing the test solution of the test substance that is insoluble in water, the ratio of the test substance to the test medium is usually expressed in mg/L. for unstable Test object, the bearing rate is expressed by the test object itself. In fish-related tests, it also refers to the wet weight of fish per unit volume of water.

2.1.10

octanol-water partition coefficient; K_{ow} ; P_{ow} the concentration ratio of the test substance when it reaches equilibrium in a two-phase medium of n-octanol and water.

2.1.11

adsorption coefficient; K_{oc} the ratio of the concentration of the test substance when it reaches equilibrium in an organic medium (soil or sediment) and an aqueous two-phase medium.

2.1.12

water-accommodated fraction; WAF the total dispersion of a multi-component test substance in water, including the dissolved, suspended and/or emulsified fractions.

2.1.13

water soluble fraction; WSF the water-loaded fraction is subjected to separation steps (eg, centrifugation, filtration) to remove insoluble suspended and emulsified fractions.

2.1.14

static test

During the test, the test mode of the test solution is not updated.

2.1.15

semi-static renewal test in the test, in order to ensure a certain concentration of the test substance, there is a plan to replace the test solution regularly.

2.1.16

flow-through test

A test in which a test organism is exposed to a continuous or intermittent flow of a test solution.

2.1.17

limit test

A test given an upper dose or concentration. Usually the test substance is expected to be less toxic or less soluble and no predictor was observed in pilot studies Limit test can be carried out when the period effect is not observed.

2.1.18

photoperiod Alternate cycles of light and dark conditions within 24 hours.

2.1.19

test endpoint

Compared with the control group, the measurable characteristic index that the test substance changes the test organism, the commonly used test endpoints are mortality, inhibition rate Wait.

2.1.20

mortality

The proportion of the number of test organisms with no signs of life activity to the total number of test organisms, usually expressed as a percentage.

2.1.21

biomass

Dry weight of living material present in a population under test, may also refer to number of leaves, leaf area, number of cells per unit volume or fluorescence Alternative indicators such as light value.

2.1.22

growth yield

The difference between the biomass at the end of the test and the start of the test.

2.1.23

Reproductive output

The total number of surviving offspring produced by the parent during the test period.

2.1.24

hatchability

Percentage of hatched eggs (eggs) in a breeding test such as birds or fish.

2.1.25

embryo viability

Percentage of hatched eggs that have begun embryonic development after fertilization in reproductive testing.

2.1.26

behavioral symptoms

The abnormal behavior of the test organism after exposure to the test substance is one of the indicators of harmful effects.

2.1.27

coefficient of variation coefficient of variation; CV the ratio of the standard deviation to the mean, dimensionless, usually expressed as a percentage.

2.1.28

dosedose

The amount of the test substance that enters the test organism and interacts with metabolic processes or important receptors. When testing, usually refers to the administration of the test substance amount or input.

2.1.29

dose-response (effect) relationship Quantitative relationship between dose and biological response (effect) in a test.