

Degradation

OECD 314: SIMULATION TESTS TO ASSESS THE BIODEGRADABILITY OF CHEMICALS DISCHARGED IN WASTEWATER

TITLE OF THE TEST GUIDELINES (YEAR OF APPROVAL)

OECD 314: Simulation Tests to Assess the Biodegradability of Chemicals Discharged in Wastewater, 2008

Keywords: sewage treatment plant, simulation, degradation

LINK TO THE OECD SITE

- http://www.oecd-ilibrary.org/environment/test-no-314-simulation-tests-to-assess-the-biodegradability-of-chemicals-discharged-in-wastewater_9789264067493-en
Not covered as a specific entry under Annexes VII to X.

WHICH OF THE REACH INFORMATION REQUIREMENTS MAY BE MET WITH THE TEST(S)

Currently, there is no REACH information requirement that may be met with this test alone.

STATUS OF THE VALIDATION BY EURL ECVAM

This is an *in vitro* test on microorganisms.

HOW TO USE THIS METHOD

This test is not described in Guidance on information requirements and chemical safety assessment (IR&CSA), Chapter R.7b: Endpoint specific guidance (November 2012, version 1.2). However, in R.7b chapter 7.9.3 on Information on degradation/biodegradation and its sources, there is a reference to a TG OECD 303 Simulation Test - Aerobic Sewage Treatment. OECD 303A may be applied in assessing the fate of chemicals in sewage treatment plants. In TG OECD 314, OECD 303A is judged as complimentary to the OECD 314B.

THE SPECIFIC SCOPE OF THE TG, E.G. LIMITATION ON CHEMICAL CATEGORIES COVERED, IF ANY, AND LIMITATION ON CLASSIFICATION AND LABELLING

This Guideline describes methods for determining the extent and kinetics of primary and ultimate biodegradation of organic chemicals during key phases of wastewater transit as well as treatment and environmental release. It is relevant for organic chemicals whose route of entry into the environment begins with their discharge to wastewater. This Guideline covers 5 separate but related tests: OECD 314A Biodegradation in Sewer System Test; OECD 314B Biodegradation in Activated Sludge Test (Compliment or lower cost alternative to the OECD 303A); OECD 314C Biodegradation in Anaerobic Digester Sludge Test; OECD 314D Biodegradation in Treated Effluent-Surface water Mixing Zone Test; and OECD 314E Biodegradation in Untreated Wastewater-Surface water Mixing Zone Test. The choice of tests should be based on the release scenarios and anticipated properties of the chemical in question. In the case of volatile test materials, appropriate modification must be made to quantify losses due to volatilization. OECD 314 may not be used as a simulation test for degradation in environmental compartments such as surface water, sediment or soil.

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