

Ready Biodegradability Test - CO₂ Evolution

OECD 301B

Environment: Aerobic, Freshwater

Measurement Parameter: CO₂ Evolution



Test Description

OECD 301B is a ready biodegradability test.

In order for a test item to be considered readily biodegradable, it must reach 60% in a 10-day window (The 10-day window starts once the test item reaches 10% degradation, and it must be before day 28). If it passes, it assumes the test item will undergo rapid and ultimate biodegradation in the environment.

Test Recommendations

Solubility	Can be soluble or insoluble
Adsorption	Can be adsorbing
Volatility	Must be non-volatile
Inhibitory	No microorganism inhibition

Equivalent & Similar Tests

ASTM D5864

ISO 14852

Test Application

This test is common for lubricants, greases, oils, surfactants, and personal care products.

To be exempt from the EU microplastics directive, the test item must reach 60% degradation in 60 days. (Does not need to occur in a 10-day window)

Test Specifications

Reference Material	Sodium benzoate
Duration	Typically 28 days, but up to 60 days
Temperature	22C +/- 2C
pH	7.4 +/- 0.2
Inoculum	Activated sludge from wastewater treatment plant
Required Info	Organic Carbon Content
Measurement Parameter	CO ₂ evolution