

Ready Biodegradability Test - Manometric Respiratory

OECD 301F

Environment: Aerobic, Freshwater

Measurement Parameter: Oxygen Consumption



Test Description

OECD 301F 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	Can be volatile
Inhibitory	No microorganism inhibition

Equivalent & Similar Tests

ASTM D6731

ISO 14851

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	ThOD or COD
Measurement Parameter	Oxygen consumption