

Biodegradation Test: OECD 301 (a)

- **Objective:** to evaluate the ready biodegradability of a chemical

- **Principle:** a dilution of the test substance is inoculated with a bacterial mixture and the ultimate degradation within a 28 days period is evaluated based upon the decrease in dissolved organic carbon, CO₂ production or O₂ consumption. When degradation is more than 60-70% of the theoretical total degradation the substance is defined as readily biodegradable and therefore not harmful for the ecosystem in the long term.

- **Development Stage:** routine

- **Results / data:** readily biodegradable or not

- **Applicability Domain:** hazard assessment (R53), risk assessment, assessment of fate and behaviour in the environment



Biodegradation Test: OECD 302

- **Objective:** to evaluate the inherent biodegradability of a chemical

- **Principle:** a dilution of the test substance is inoculated with a bacterial mixture under optimal conditions and the ultimate degradation within a 28 days period is evaluated based upon the decrease in dissolved organic carbon, CO₂ production or O₂ consumption. When degradation is more than 60-70% of the theoretical total degradation the substance is defined as inherent biodegradable and therefor not harmful for the ecosystem in the long term

- **Development Stage:** routine

- **Results / data:** inherent biodegradable or persistent

- **Applicability Domain:** hazard assessment (R53), risk assessment, assessment of fate and behaviour in the environment

