CENTRO PARA
A VALORIZAÇÃO
DE RESÍDUOS

Report RL-IDT-2022-012

Biodegradability Tests of Glass Cement Removal Agent Product

For Company Chemitek Química Avançada, SA

TECHNICAL OPINION

Upon request from the client CHEMITEK - QUÍMICA AVANÇADA, SA, hereinafter referred to as CHEMITEK, the CVR - Center for Waste Valorization conducted a study to evaluate the biodegradability of the commercial product "Cement Removal Agent", hereafter only called CRA, according to the OECD Guideline for Testing of Chemicals - 301 F Manometric Respirometry Test. This type of test is used for soluble samples, as is the case of CRA. It was tested one type of CRA product - CRA (without dilution).

The inoculum used for these tests was Activated sludge from a local Wastewater Treatment Plant. It was used inoculum with a concentration of 30 mg/L of suspended solids. It was added 250 ml of inoculum. The theoretical oxygen demand (ThOD) was determined using the chemical oxygen demand (COD). Therefore, for CRA biodegradability tests, it was added 0,5 ml of CRA, giving a concentration of 66,5 mg ThOD/L. It was also performed experiments with a reference substance (sodium benzoate) with a concentration of 100 mg/L. The tests were performed at constant stirred and constant temperature (25ºC) for up to 28 days.

From the results obtained we can conclude that the CRA - Cement Removal Agent commercial product is readily biodegradable, according to the OECD Guideline for Testing of Chemicals - 301 F Manometric Respirometry Test.

Guimarães, 19 May of 2022

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Research and Technological Development (R&D)