Industrie Service

Attestation for laboratory degradation of 3 different hydrocarbons by the innovative NHS$^+$- procedure, based on the patent no. US 2014/0348735 A1 and WO 2015/170317 A1

The TÜV SÜD Industry Service GmbH testifies hereby the proper execution of 3 hydrocarbon-degradation tests by the innovative NHS$^+$- procedure in the accredited laboratory of „görtler analytical services gmbH" in Vaterstetten, Munich Germany (see laboratory report final from the 5th of November 2015, 81 pages).

The degradation tests, which have been executed under ideal conditions in laboratory scale, were made with the following hydrocarbons, in which in each case different soil types (pure sand, homogenized sand-clay mixture (1:1), agricultural soil/rich in humus surface soil) have been tested.

- Extra light heating oil
- Crude oil
- Tetrachloroethene

The test attendant quantitative laboratory analytics (blank value, after 2, 6 and 24 hours) extends on following measurement parameters (material respectively material classes):

- HC-Index (C10 - C40)
- BTEX-aromatic hydrocarbons
- Lipophilic materials
- Tetrachloroethene

Summing up, hereby it is testified from an expertise-technical prospect, that the novel and forward-looking NHS$^+$- procedure is basically suitable for the fast and partly very effective decomposition of hydrocarbons [(polar and nonpolar hydrocarbons, (BTEX, aromatic hydrocarbons, CHCs, crude oil products)] on various soil types without an explicit increased content of clay mineral content.

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