



## ENVIRObacter

**ENVIRObacter is a solid lyophilized product, containing millions of bacteria capable of carrying out the aerobic degradation of a wide range of hydrocarbons, including gasoline, diesel and crude oil.**

### Features

The lyophilized culture contains, among others, the following bacterial species: *Bacillus licheniformis*, *Bacillus subtilis*, *Bacillus megaterium*, *Bacillus polymyxa*, *Bacillus amyloquefaciens*, *Pseudomonas putida* and *Pseudomonas*

*fluorescens*. They are non-pathogenic bacteria and therefore Group 1 of Biological Risk according to Directive 2000/54 / CE and 67/548 / EEC, in addition to not having been genetically modified.

<b>Composition</b>	Bacterial strains ( $4 \times 10^9$ / gram) and preservatives
<b>Appearance</b>	Dust
<b>Odour</b>	Soft and characteristic
<b>Water solubility</b>	Total
<b>Expiration</b>	18 months



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## ENVIRObacter

### Applications

ENVIRObacter is recommended for the bioaugmentation treatment of hydrocarbon contaminated soils and groundwater. It is effective in a wide range of hydrocarbons (TPH, BTEX, ...). The ENVIRObacter suspension can be applied in the saturated and unsaturated zone and is

advisable in aquifers with low biological activity, and joint application, if necessary, of bioactivators or nutrients such as ENVIRONUTRI or ENVIROACTIV. It can also be applied in on-site soil treatment processes using bio-piles.

### Advantages

- Reduces the time of treatment by bioremediation of soils and groundwater.
- Decrease in costs derived from other technologies, such as pumping or excavating tons of soil.
- It allows treating large amounts of soil and water at the same time.
- It is non-toxic and biodegradable.



### Preparation and dosage

It will be applied after activating the product in water at a rate of 20 litres / kilo. The activation will be carried out for 2-3 hours in a suitable tank and provided with an aeration system that prevents septic conditions and the decantation of the different product fractions.

To improve the adaptation of the microorganisms to the components to be degraded, it is advisable to add water extracted from the affected area to the mixing tank, always ensuring that the hydrocarbon content does not exceed 20 mg / l.

The concentration of O<sub>2</sub> in the tank must be kept between 0.5 and 1.5 mgO<sub>2</sub> / l, avoiding falling below the lower level (if you do not have an oximeter), it is enough to ensure that no septic odours (sulphides) are released and that the components of the product are not deposited.

It is important that the tank to be used is properly sanitized, for which bleach (2 ml / l) can be used with a maximum contact time of 2 hours and thorough rinsing afterwards. After this time, the solution obtained can be injected into the soil. In this sense, a settling period of approximately 2 minutes is required as an operation prior to the application of the suspension, to eliminate the sedimentable nutrients contained in the product.

Although the dilution is carried out in 20 litres of water, once the suspension is activated it can be mixed with a larger volume of water and, with stirring, added to the soil. A general quantity to take into account is 4 - 10 litres / m<sup>3</sup> of soil.

### Delivery format

20 kg drum.



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