

# Ultra-Archaea®

## Why did we change the product name from “Ultra-Microbes” to “Ultra-Archaea”?

To answer this, we first need a small biology lesson. There are three categories (domains) of life:

1. Eukaryota (multi-celled organisms like plants, animals, humans)
2. Bacteria
3. Archaea

Bacteria and Archaea (pronounced ar-KEE-uh) are both single-celled microorganisms - but beyond that, they are very different. Archaea are widely believed to be the oldest organisms on Earth and make up approximately 35% of life. They have evolved over time to be capable of surviving in many extreme environments, such as deep-sea vents and near volcanic activity. In almost all cases, any given species of Archaea eat a wider variety of hydrocarbons than a given species of bacteria.

Even after millions of years, there haven't been any cases where Archaea have spread disease like bacteria (become pathogenic).

The word “microbe” is used to refer to microorganisms, but more often it emphasizes microorganisms that can spread disease.

Ultra-Archaea are not capable of spreading disease, and we feel the product would be best served if it is named more accurately rather than associating its name with microbes, which may have negative connotations.

Bacteria-based methods of bioremediation are limited, as different bacteria have the ability to remediate very specific compounds. This is excellent if the total contamination source can be determined, but in most cases, archaea are a better choice, as they have the ability to remediate a wide range of different compounds, providing a more complete solution than bacteria.

Ultra-Archaea are in a completely different category of bioremediation and we want to make this distinction because it's safe and it works.

