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ProductInformation

ANTIFOAM 204
Molecular Biology Reagent

Product No. **A 6207**
Store at room temperature

Product Description

The effectiveness of an antifoam is culture- and medium-dependent. An antifoam allowing good growth of one microorganism may inhibit growth of another species. Some microorganisms produce significant quantities of extracellular proteins or biosurfactants, which contribute to media foaming. These by-products are often produced during the latter stages of the fermentation. The composition of the growth medium can contribute to foaming, particularly if the medium is rich in proteinaceous components.

Antifoam 204 is a clear, colorless mixture of non-silicone defoamers in a polyol-based dispersion, useful for the control of foaming in microbial culture flasks or fermentations. Antifoam 204 is a general-use antifoam and should be considered a non-toxic additive to culture medium. However, any antifoam being used for the first time should be tested to ensure it will neither inhibit the growth of the microorganism nor act as a growth substrate (if this is a concern). Antifoams should be tested for adequate defoaming under representative culture conditions. These conditions should include medium composition, temperature, pH, mixing, and aeration among others. If the antifoam is not effective under these conditions either a higher amount or a different antifoam should be selected and tested. If the antifoam inhibits growth or acts as a substrate, a different antifoam should be selected and tested.

Preparation Instructions

Sterilize by autoclaving. Multiple autoclaving will not significantly affect performance.
The flow properties of Antifoam 204 allow pumping to a fermenter on an as-needed basis.

Procedure

A starting concentration between 0.005% and 0.01% (v/v) is recommended. The optimal amount of antifoam required for various applications must be determined empirically. Antifoam 204 can be added to media prior to sterilization or sterilized individually by autoclaving and added to sterile fermenter media on an as-needed basis using an antifoam probe connected to a suitable pump.

Product Profile

Each lot is tested with *Escherichia coli* (ATCC #25922) grown in Terrific Broth (Product No. T0918). The optical density of a culture with 0.01% (v/v) antifoam 204 was ∃80% of the control culture after 8 hours of growth at 37EC.
Antifoam 204 has been shown to have no significant inhibitory effect on the growth of *Bacillus subtilis* (ATCC #6051) in Terrific Broth.

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