

## BIO 204 GDB solution Spring 2021

**Describe the role of antifoam during fermentation process. Also give three examples of commonly used antifoams.**

Antifoaming agents are substances that are applied prior to foam formation in order to prevent foaming while defoamers are compounds applied after foam formation in order to suppress it. Industrial antifoam agents impair ethanol fermentation and decrease yeast cell viability, inducing a clear stress response in an industrial strain under conditions. Antifoam is the chemicals which are a crucial part of many commercial fermentation processes. The types of defoamers and their mode of operation is also presented is a simple model which simulates foam growth as functions of defoamer concentration air hold-up, reactor volume and air flow rate.

### **Examples:**

1. Insoluble oils
2. Alcohols
3. Glycols