

# CelluCOND™

## CONDITIONING FOR IMPROVED PERFORMANCE



### CelluCOND™ HELPS YOU TO

#### REDUCE YOUR ENZYME DOSAGE

CelluCOND™ reduces the inhibition of enzymes mediated by toxic compounds. CelluCOND™ allows lowering the enzyme dosage without losing on enzymatic activity and yield. CelluCOND™ can be used before or after addition of enzymes

#### REDUCE YOUR DOSAGE OF FERMENTING ORGANISM

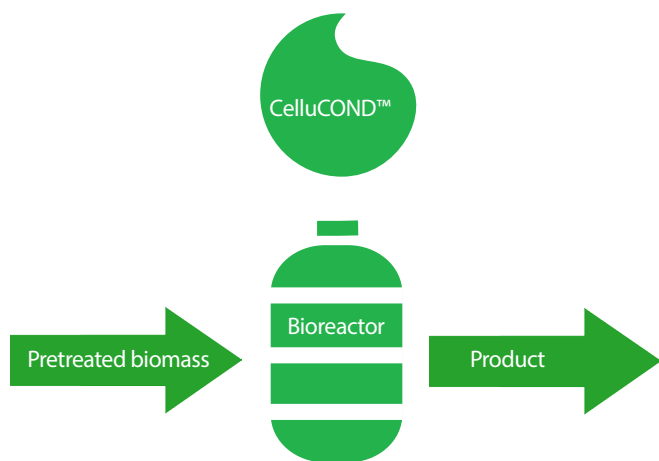
CelluCOND reduces the inhibition of the fermenting organism mediated by toxic compounds. Detoxification of pre-treatment derived toxic compounds allows for lower loadings of fermenting organism without affecting the overall yield

#### IMPROVE PROCESSABILITY

When CelluCOND™ in situ technology is utilized directly in the bioreactor valuable process time is saved. No time consuming substrate feeding strategies are needed to circumvent inhibitor mediated effects on enzymes and fermenting organisms.

### CONDITIONING FOR IMPROVED ENZYMATIc SACCHARIFICATION AND FERMENTABILITY

The thermochemical pre-treatment is one of the most promising and economically viable pre-treatment methods today. It serves to liberate the hemicellulosic sugars and open up the cellulosic structure to facilitate for enzymatic hydrolysis. However, toxic compounds that are formed during the thermochemical process have an inhibiting effect on fermenting microorganisms and enzymatic saccharification. In high quantities the inhibitors cause loss in fermentative capacity and enzymatic activity. High substrate concentrations are desired to reach a cost effective process, but it will also increase concentration of inhibiting compounds. Hence, control of inhibiting compounds are important to obtain a cost effective process.



### CelluCOND™ - Patented technology for relief of inhibition mediated by toxic compounds

CelluCOND™ is an in situ CONDitioning that can be utilized directly in your bioreactor without a separate process step. CelluCOND™ may well be used when running batch SHF<sup>1</sup> or batch SSF<sup>2</sup> as well as on continuous bioreactors.

1. Separated Hydrolysis and Fermentation
2. Simultaneous Saccharification and Fermentation

Please contact me and I will tell you more about our technology platform and what we can do for you.  
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