

GLOBAL BIOENERGIES reports first isobutene production from waste biomass

Evry, March 3rd, 2015 – Global Bioenergies (Alternext Paris – ALGBE) announces today having produced “second generation” isobutene, in a push to diversify accessible feedstock towards cheaper resources.

As a first step in its pioneering journey to manufacture bio-sourced isobutene, Global Bioenergies has been using first generation feedstock, such as wheat-derived glucose, to set-up and optimize its bio-isobutene process. However, the process was designed to be versatile in terms of feedstock. With the right technical adaptations, it would indeed be well suited to the usage of non-edible resources - widely defined as “second generation” - such as wheat straw, corn stover, sugar cane bagasse or even wood chips.

Various companies are presently debottlenecking the conversion of second generation materials into fermentable sugars. These technologies have now matured to commercial scale, with five plants having started operations in the last 24 months. This industry ultimately has the potential to provide fermentation processes with low-cost sugars derived from abundant resources.

Global Bioenergies has recently established collaborations with nine companies from three continents developing the most promising technologies to convert various resources (straw, bagasse, wood...) into fermentable sugars. Preliminary tests have resulted in successful second generation isobutene production at the laboratory scale, with process performances similar to the ones observed using wheat-derived glucose.

Frédéric Pâques, Chief Operating Officer at Global Bioenergies comments: “We have now demonstrated experimentally that our isobutene production process is compatible with a range of second generation resources. Using impurity-containing sugar solutions is usually difficult in classical fermentation processes that lead to liquid compounds, because the accumulation of such impurities in the culture broth makes purifying the product more complex. Our process, which is based on the production of a gaseous product, alleviates these issues and will allow us to use the cheapest types of feedstock.”

Thomas Buhl, Head of Business development at Global Bioenergies concludes: “Accessing second generation feedstocks strengthens the stunning perspective of our isobutene process to being massively used in the mid-term for the manufacturing of transportation fuels such as gasoline and jet fuel.”

About GLOBAL BIOENERGIES

Global Bioenergies is one of the few companies worldwide, and the only one in Europe, that is developing a process to convert renewable resources into hydrocarbons through fermentation. The Company initially focused its efforts on the production of isobutene, one of the most important petrochemical building blocks that can be converted into fuels, plastics, organic glass and elastomers. Global Bioenergies continues to improve the yield of its process and recently announced success with first testing in its industrial pilot. The company also replicated its achievement to propylene and butadiene two members of the gaseous olefins family, key molecules at the heart of petrochemical industry. Global Bioenergies is listed on Alternext, Euronext Paris (FR0011052257 – ALGBE).

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