CVT VALORISATION SUD

Energy
Biodiesel production from vegetal oils

CONTACT
Lionel TROUILLEUX
Business Developer
lionel.trouilleux@cvt-sud.fr
+33 (0) 4 91 99 94 43

Technology's description

This technology can produce in an easy and efficient way, an Ethyl Esther Biodiesel from vegetal oil (oil of Jatropha Curcas seeds or cotton or sunflower), ethanol and a natural catalyst (made from shea nuts shell or other local biomass specifically designed for the purpose of this process).

On the one hand, this process is using ethanol as a reactive phase: ethanol can be obtained from distillation of many kinds of sugar and starch contained in the biomass. Methanol is oftentimes used instead of ethanol, in spite of possible import costs and higher greenhouse gas emissions (GHGE). Ethanol is offering replacement benefits ! On the other hand, this same process is using an innovative catalyst, similar to an activated carbon material, prepared from shea nuts shell and then calcinated to form a potash based carbon like material.

The raw materials derived from the local biomass will provide with user independence both in terms of energy production and raw material supply. The feedstocks production is offering the potential for a sustainable economy as well as offering additional revenue for the farmers.

Advantages

- Ethanol based process, methanol free
- Easy, fast & enhanced chemical reaction
- Biomass: non-edible oils, alcohol, shea nuts
- Sustainable local economy development
  additional revenue - farmers & cooperatives
- User independence in energy & raw material
- Appropriate fuel for diesel engines

Intellectual property

Patent

Development level

Technology validated in lab

1 2 3 4 5 6 7 8 9

Applications

- Biodiesel production for local use
- Cooperatives, farming, fuel industry

Technology transfer

- Licence - Co-developments
- Know-how

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