

Company name: Ethanol Technologies Limited (Ethtec)

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Category 1 – Lignocellulosic Sugars

1. Ethtec will sell lignocellulosic sugars solution to any interested party.
2. Due to the production location (Australia) shipment quantities of from 2L to 20L are likely to be most applicable, however, larger quantities can be supplied.
3. The baseline sugars concentration is typically 6% w/w, however higher sugars concentrations up to 35% w/w are available.
4. The lignocellulosic sugars solution is a liquid.
5. Normally packaged in 2L plastic vessels, however can be packaged in larger containers if required.
6. Sugars solution is normally produced from sugar cane bagasse or from softwood (radiata pine) timber. Other lignocellulosic biomass can be processed if required.
7. Concentrated sulphuric acid hydrolysis.
8. The production plant is able to run in continuous mode to produce the desired quantity of lignocellulosic sugars solution. The plant has a maximum output of 250L/hr of sugars solution.
9. Baseline composition is typically glucose up to 4.5% w/w, xylose up to 1.8% w/w with galactose, mannose and arabinose making up the remainder of the sugars, depending on the composition of the feedstock. Higher concentration solutions containing the sugars in the same relative proportions are available.
10. Yes, continual detailed compositional analysis is performed.
11. Very low concentrations of sugars degradation products such as furfural and levulinic acid. Quantities are determined by HPLC analysis. Contains no acetic acid.
12. No.
13. 350 g/L
14. Sugars solution samples have been successfully shipped. No degradation of sugars has been reported. Sugars solution is very stable during transport and storage.
15. The Ethtec process produces a high quality lignocellulosic sugars solution. Ethtec is progressing with the integration of an ethanol fermentation and ethanol recovery system within the lignocellulosic sugars production process. This will provide a complete demonstration of a sustainable process for second generation ethanol fuel production.

16. Ethtec currently does not sell lignocellulosic sugars. The production plant is operated for the purpose of developing, demonstrating and supporting the commercialisation of a process for the production of second generation ethanol fuel and co-products.