

Gel-o-fuel

EXECUTIVE SUMMARY

Polymer based gels, that can absorb organic liquids and fuels, and can be used as a portable fuel source in catering/hospitality industry, camping, travelling and for interior decoration (fireplaces, etc.)

TECHNOLOGY DESCRIPTION

NCL scientists have developed a polymer based gel that can absorb organic solvents like methanol, ethanol etc. and can act as a portable fuel source. The gel can be polymerized in situ from the selected monomers and does not require any external gelling agent. The level of cross linking and the formation of structural complexes with the organic liquid can be controlled - improving the absorption capacity of the gel. 1gm of this gel can absorb upto 400 gm of fuel.

MARKET POTENTIAL

- The hospitality industry at a high growth, to meet the current demand, has to more than double in size*
- Indian catering industry is worth over Rs. 57,000 Crore, with high growth rate**
- Gel-o-Fuel has great potential to be used as a portable fuel source for catering, travel and other purposes.

*<http://www.business-standard.com/india/news/kit-hotels-in-indiademandsupply/351939/>

** PROCESSED FOOD INDUSTRY. Jul 31, 2007; pg 14

VALUE/ADVANTAGES

- Effective, flexible, compact source of fuel
- No soot, pleasant blue flame
- Higher burning efficiency
- Existing gels use a commercial polymer (expensive); Gel-o-fuel uses cheaper, easily available raw-materials
- Liquids that is trapped in the 3D matrix of the gel is turned in to soft solids-easy and safe to transport

APPLICATIONS

- Solid fuel
 - Fireplaces
 - Patio/garden/yard burners
 - Outdoor cooking
 - Camping/travel/guest houses/hotels
- Chafing dish fuel
 - Catering
 - Cooking

TECHNOLOGY STATUS

- Demonstrated at the lab scale
- On the lookout for potential partners for licensing
- Patent granted: US [6,794,467](#)