

BIOCHEM show case

Find alternative markets for natural glycerol

Problem

Glycerol is a co-product from the manufacture of soaps, fatty acids and biodiesel from oils and fats. For every tonne of oil processes about 100kg of glycerol is created. As the demand for biodiesel grows existing markets for glycerol have become saturated and the price falls.

Technical solution

Solvay has developed a process for the production of epichlorohydrin from bio-based glycerol by reacting the glycerol with hydrochloric acid. Epichlorohydrin is used in epoxy resins and coatings and demand is growing rapidly. The existing process will be cost competitive with the petrochemical route.

Solvay is currently building a 10kT p.a. plant in France; expected to come on-line in 2007.

In a reversal of history, synthetic glycerol used to be manufactured from epichlorohydrin when natural glycerol was in short supply.

Benefits

- **New market for natural glycerol**
- **Cost competitive with petrochemical route**
- **Renewable feedstock instead of fossil carbon source**
- **Less water used in process**
- **Reduced production of halogenated by products and waste**

Partnerships for better
innovation support



Eco-Innovation
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Additional information

Solvay website

http://www.solvay.com/EN/NewsPress/20120611_EpicerolChina.aspx

<http://www.solvaychemicals.com/EN/products/chlorinated/Allylicproducts/Epichlorohydrin.aspx>