# Re: Methanol −− back to the future

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- *From*: Uncle Ben <ben@xxxxxxxxxxx>
- *Date*: Wed, 28 May 2008 11:04:40 −0700 (PDT)

On May 28, 1:38 pm, Stephen Sprunk <step...@xxxxxxxxxx> wrote:

> Uncle Ben wrote:
>
> > Today, methanol is dismissed as too dangerous to use. It is quite toxic to humans, causing symptoms like blindness and further, multiple sclerosis, and death. It burns with an almost invisible flame, which is quite dangerous. Consider the liability problem!
> >
> > But these problems were solved a decade ago. Just make M85 to discourage drinkers and make the flame visible. Make dispensers that won't go in the wrong places. Etc.
> >
> > Consider the virtues: In Central America, where natural gas was cheap, they made methanol for $0.25 per gallon in the 1990's. It is no longer that cheap, but still it can be made quite inexpensively, compared to corn−fed ethanol. You can make methanol easily from sawdust, much less switch−grass. You can make it from old newspapers or from garbage dumps.
>
> Pure ethanol is considered too dangerous for the same reasons as pure methanol. Most of the problems go away, though, when mixed with gasoline to give E85 or M85. IIRC, the changes to a typical car to take either are relatively minor if done at the factory (but illegal if done aftermarket, thanks to the EPA), and should allow either to be used in practice, which means the market could sort out which was cheaper to mass produce in any given month.
>
> I don't know if a non−flex−fuel car can take M10/M15, though; all can take at least E10 and pumps in many places are up to E15 today. Also, ethanol has better energy density than methanol due to longer carbon chains, which means methanol−mixed fuels will have worse mileage than ethanol−mixed ones. The methanol's price needs to be substantially lower than ethanol (or gasoline, which is denser yet) for people to

tolerate worse performance.

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Thanks. And I did find via Google about other advantages of DMF, including greater energy density.

I'm running E85 right now on a converted 1999 Subaru OBW, without fear of the EPA police. The EPA has granted approval of the FFI line of converters in OBD2−using cars. They simply stretch the electrical pulse sent to the fuel injectors to give the car's computer the extra range in mixture and timing to achieve stochiometric combustion.

I'm a little puzzled by the search for energy density within certain practical limits. Any thinking person would rank mpd higher than mpg as a goal. I am getting 15% higher mpd (miles per dollar) in spite of 15% less mpg, and am happy to fill up a little more often when necessary. After all, Indy cars used to run on methanol; only this year did they all switch to ethanol −− maybe to reduce the number of pit stops required.
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