

**FEDERAL CHAMBER OF AUTOMOTIVE INDUSTRY
RESPONSE TO THE DIESOHOL DISCUSSION PAPER**

The following comments, provided by members of the FCAI, relate to the "Discussion Paper on Diesohol", Paper 7,

1) Diesohol is firmly opposed by members of FCAI on the basis that blending ethanol with diesel fuel reduces the flash point from a minimum 55°C in Europe down to close to 13°C, even at low ethanol concentrations. The minimum flashpoint required for automotive diesel in various fuel quality standards is: ASTM D975 standard: 52°C (126°F), EN590 standard: 55°C min (131°F), JIS K2204 standard: 45°C (113°F). This reduction of flash point raises concerns related to storage of fuel (oil company issue) and to flammability risks on-board vehicles. There is a concern in Europe that blending ethanol with automotive diesel would result in the generation of vapour which, when mixed with air would fall within the flammability range and could be ignited by any suitable source of ignition such as a spark (note that petrol/air mixtures are too 'rich' in volatile HC to ignite under these conditions, while normal automotive diesel is too 'lean'). Further to this characteristic, such blends are unlikely to be able to be transported and distributed as diesel fuel in existing fuel distribution systems as they may not meet rail and road transport regulations. The conclusion to be drawn is that adding ethanol to automotive diesel changes the product from intrinsically safe to potentially dangerous.

2) Ethanol's natural properties are counter to the target properties sought for diesel fuel, such as cetane and lubricity.

3) Materials used in the engine and vehicle (fuel tank, feeding lines, etc) are not designed to run with diesel/ethanol blends, and therefore their compatibility is seriously questioned. Vehicle and engine manufacturers are concerned that diesohol may damage vehicle parts, especially fuel injectors.

4) Diesohol's compatibility with the vehicle in other ways, its impact on vehicle emissions and its health effects remain unknown. Since ethanol has a lower energy content than diesel fuel, its presence in the fuel will reduce fuel economy.

5) It is also noted that the CEN industry expert group dealing with diesel fuel standards in Europe, unanimously rejected the option of using ethanol in diesel fuel. Therefore no work has been carried out so far, at the CEN level, on standardisation of ethanol in diesel fuel.

6) The paper seeks responses to a number of specific questions, but the response to Q1 regarding warranty seems to be (without exception) that no warranty can be given when diesel fuel containing ethanol is used. On the basis of the rejection of ethanol/diesel fuel blends as outlined above, the remaining questions raised in the paper become irrelevant and will not be addressed by FCAI.

Summary:

Until the many safety, performance and health concerns are resolved and sufficient peer-reviewed research is conducted in these important areas, manufacturers do not support adding ethanol to any category of diesel fuel.

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