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THE IMPACT OF FAME ON THE DISTRIBUTION AND HANDLING OF AVIATION FUELS

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Many countries are looking at renewable fuel sources to supply part of their energy requirements. This has resulted in the widespread introduction of biodiesel fuels containing fatty acid methyl esters (FAME) in Europe during 2008. Despite warnings that there may be cross-contamination issues associated with the co-transport of these FAME containing diesel fuels with Jet fuel in the pipelines, ships, and other non-dedicated carriage systems, the directives mandating minimum percentage use of FAME has forced the issue. As a result, there have been instances of Jet fuel contaminated with FAME at airports leading to supply disruption.

This paper will survey the history of work on FAME in co-transport systems, briefly review the generic issues associated with FAME in these co-transport systems and how this can easily lead to contamination incidents and finally look at the measures that have been put in place to prevent this. In conclusion, the outlook for the near term is the possible approval of 100 ppm FAME in Jet fuel and whilst the implications of this are a reduction of the risk of supply related disruption, the industry will still have to carefully manage the distribution logistics. As the mandate for biofuels spreads to other geographic areas the industry may need to contemplate further measures.