Abstract

The emissions of harmful gases constitute a major challenge for the transport sector, which also includes the shipping industry. Sustainable and achievable solutions have to be found to protect and preserve our environment. Several international treaties determine that the emissions of greenhouse gases should be drastically reduced.

Biodiesels are excellent candidates in the transition to a CO_2 -neutral economy. They are already being applied in mixed forms in large parts of the European Union, including Belgium.

Because of the many types of biodiesels additional research into efficiency is still required. This research relates to two different kinds of biodiesel, RME and FAME 0, both in pure condition and in mixed form. Both diesels are being compared to conventional diesel

Several parameters are examined: carbon monoxide, carbon dioxide, nitrogen monoxide, nitrous oxide, hydrocarbons, oxygen gas and the soot concentration. Research on the possible influence on the greenhouse effect and the potential health hazards to the environment would be welcome. This then determines whether the biodiesels are interesting for use on a larger scale.