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Detection of fuel in AdBlue tanks with oil test paper

Background

AdBlue is the brand name of a 32.5% aqueous urea dilution. Truck engines with SCR catalytic technology use AdBlue to reduce the NOx-content in the exhaust gas stream. This reduction is necessary to reach the demanding limits for exhaust gases. The exact composition of AdBlue is defined in DIN 70070.
AdBlue is filled into a separate tank. Fuel in the AdBlue tank will permanently damage or destroy the SCR system, causing high cost of repairs.

Test procedure

The oil test paper is moved back and forth in the tank 3-5 times. A dark discoloration of the test paper indicates the presence of fuel.
Fuel does not mix with AdBlue. It forms small droplets or a thin layer on the surface of AdBlue. To give a positive reaction the test paper must come in contact with fuel in the tank.

Move test paper back and forth 3-5 times.

Remove the test paper. A dark coloration indicates the presence of of fuel.

Different concentrations of fuel
Left: pure AdBlue
Right: pure fuel

Detection limit

50 mg/l fuel in AdBlue give a weak positive reaction. 100 mg/l fuel in AdBlue result in a clearly visible color reaction.

Ordering information

Oil test paper, Box of 100 strips 20x70 mm, REF 907 60

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