

Treating and preventing microbial contamination in your fuel tanks

Do you have a problem with bugs in your fuel storage system? With the trend towards higher biodiesel concentrations in fuel, we have noticed increasing problems with microbiological contamination in fuel tanks and systems. Heat, water and oxygen in the tank, coupled with nutrients from the biodiesel fatty acid methyl esters (FAMES), create the ideal breeding ground for bacteria, fungi and other microbes, which spread through the fuel.



PROBLEMS ASSOCIATED WITH MICROBIAL CONTAMINATION

It is important not to ignore bug contamination in your fuel storage system. If left unchecked, this problem can result in

- Recurring filter blockage of fuel pumps and ultimately damage of customers' vehicles.
- Prolonged water suspension in storage tanks and fuel degradation.
- Corrosion and pitting in the base of tanks, leading to pin-hole leaks.

HOW T.E. LABORATORIES CAN HELP

T.E. Laboratories (TelLab) is an ISO 9001:2015 certified laboratory, based in Tullow, Co. Carlow. We have been testing fuel for terminal operators, fleet managers and fuel distributors and retailers since 1991.

TelLab provides a complete service, starting with fuel sampling and testing. We will issue your report within seven working days. We can also provide appropriate treatment and develop a tailored programme for regular ongoing system monitoring and preventative action.

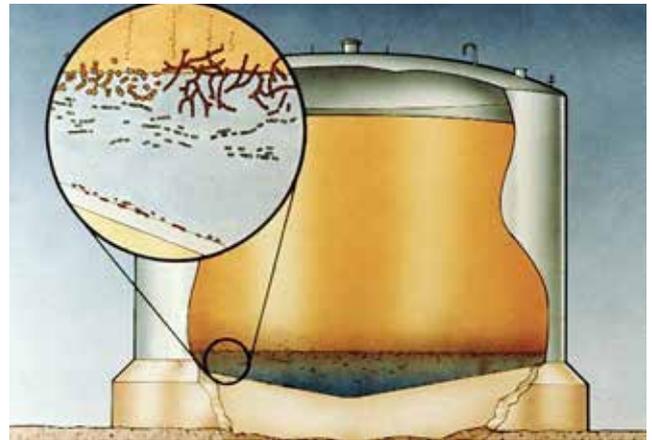
MONITORING: THE FIRST LINE OF DEFENCE

Monitoring is the first line of defence against contamination. Samples are taken by a TelLab service engineer, using specialist sampling equipment to collect the last millimetre of fuel/water from the bottom of the tank. They are then taken to our dedicated fuel and microbiology laboratory and tested for the presence of three strands of microbes, each with the potential to cause unique problems. Upon analysis, a diagnostic report is prepared for each tank sampled. This will detail the course of action required to solve any issues identified.

TREATMENT WITH BIOCIDES

If the level of bacterial contamination in the tank is high, we may recommend treatment with a micro-biocide. This acts like an antibiotic, killing the microbes within the tank. The micro-biocide we use is a partition biocide, with a built-in "time release" mechanism, providing treatment of the fuel and water phases in any fuel storage system over a long period of time, even when new fuel is added to the tank. This confers future protection against any dormant or newly introduced bacteria.

It is important to emphasise that treatment with biocides should be the last line of defence. We have witnessed the over-prescription of biocides in recent years. Similar to an antibiotic, overuse of a biocide will reduce its effectiveness over time. When treating a microbial problem, we treat the tank as opposed to the fuel. This provides prolonged protection.



The combination of water, heat, oxygen and nutrients in the tank provides a perfect breeding ground for bacteria, fungi and other bugs, which spread through the fuel.

TELLAB PROVIDES A COMPLETE SERVICE FROM FUEL SAMPLING AND TESTING TO APPROPRIATE TREATMENT AND A TAILORED PROGRAMME FOR ONGOING PREVENTION.

ONGOING PREVENTION

Before a bug contamination problem occurs, or once it has been tackled, we can provide you with an individually tailored programme of regular, ongoing storage system monitoring and preventive maintenance. This will provide continuous protection of the fuel and fuel storage system, avoiding potentially costly quality and equipment degradation problems.

Contact our sales office to find out more about this service:

Email: jmcgrath@tellab.ie

Tel: +353 (0) 59 91 52881

Alternatively, visit our website www.tellab.ie

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