



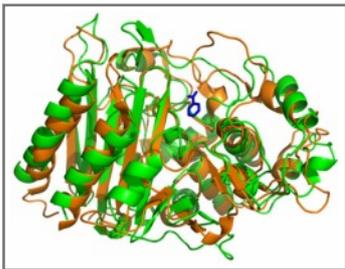
Battle of the Diesel Bug

Choose Your Weapon - Enzyme or Biocide?

With so many diesel-bug treatments available, which one is the best? In this short article we look at the facts on the two types of treatment available: enzymes & biocides.

Why Do We Need Them Anyway?

Good quality modern diesel is dosed with additives at the refinery. In an ideal world they last a maximum of 6 months. Marine is far from ideal, by the time you fill your tank the diesel could have been in the supply chain for over 2 months, so already degrading. Plus, during its journey from refinery to tank there are many opportunities for water to mix with the fuel, where there is water there is diesel bug.



Enzymes

Enzymes are mixed with an alcohol usually glycol. A Google search quickly reveals the action of enzymes is not simple, in a nutshell they act as a catalyst reacting with the microbes, bacteria, yeast & moulds, removing & altering some of the proteins making them unstable.

Enzymes are very fragile & easily destroyed through heat and pressure as they are drawn through the engine and returned to the tank. This is especially true in marine engines that can return up to two thirds of the fuel back to the tank. The role of the alcohol is to absorb the water & therefore the habitat the diesel bugs rely on.

Generally the treatment works, the enzymes inhibit diesel bug - but don't kill it. The water absorbed into the fuel from the alcohol is passed through the engine. This can be a major issue; Older engines could easily handle the water but it is critical that today's modern common-rail engines use only very clean & very dry fuel, any water in suspension or otherwise can have a serious effect on the fuel system potentially leading to expensive breakdowns. As the Enzymes do not kill diesel bugs, tanks should be constantly dosed or the bugs will proliferate once the water returns, as it always will



Biocides

Biocides kill Diesel Bug. There are two types, one is used neat and the other is supplied with a glycol carrier - see above caution on water absorption. The neat biocide will not remove water; this must be removed with a water separator. As biocides kill the bugs, when the water returns the bugs cannot breed because they are dead.

In Summary

In summary enzymes inhibit bugs, biocides kill them. The enzymes and one of the biocides contain alcohol which absorbs the water into the fuel and can cause serious damage to a modern engine. If there is more water in the bottom of the tank than the alcohol can absorb then it will remain there. The best and safest method to remove water is through a water separator.

Marrine 16 produce a Biocide, the neat version. We could produce an enzyme product but do not as we believe they are neither as effective nor permanent as biocides. We always recommend a water separator is fitted.

More Information? Contact us 01666 817 577 info@marine16.co.uk