



Bio diesel- The Facts

Making the environment second nature

Bio diesel and the environment

- Bio diesel is a clean-burning renewable source of energy from vegetable oils. It can be produced using either chemical or physical production routes using either waste or virgin oil.
- Bio diesel made from recycled vegetable oil is considered to be near carbon neutral and therefore does not interfere with the carbon cycle and cause climate change. The vegetables from which the oil has been extracted remove CO₂ from the atmosphere to grow and when bio diesel is burned the CO₂ is released back to the atmosphere.
- Less soot and smoke is emitted from engines as there is much more efficient burning of the fuel mixture. Users can expect a near
 - 100% reduction in Sulphur dioxide
 - 40-60% reduction in soot & particles
 - 10-15% reduction in Carbon monoxide
 - A reduction in Poly Aromatic Hydrocarbons PAH's
- Faster starting and smoother operation should reduce the amount of unburned fuel.
- If bio diesel enters the watercourse it will still harm aquatic and marine life – birds, mammals and fish coated in vegetable oil are more vulnerable to predators and could die from hypothermia or illness.
- Bio diesel will degrade within 28 days and a study conducted at the University of Idaho 1995 determined that rapeseed bio diesel would degrade about twice as fast as petroleum diesel.

Bio diesel and boats

- To switch conventional diesel engines to bio diesel requires no start up or conversion costs.
- Using bio diesel in a conventional engine may jeopardise the manufacturers warranty so check with manufacturers for exact details.
- Bio diesel can improve engine lubrication when blended with LPG.
- Long term engine wear studies in Europe and the U.S. show that 100% bio diesel reduced long term engine wear to less than half of those engines running on diesel fuel but poorly made bio diesel of low quality can cause engine problems.
- Bio diesel has no noxious odours and is considered harmless to handle. It smells and feels like cooking oil.
- European and U.S. studies indicates that blends of bio diesel and petrodiesel result in small decreases in overall power output of engines. However, at or near maximum throttle, the two engines performed the same.



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- Currently bio diesel is taxed less than red diesel but the production costs of bio diesel make it more expensive to purchase than red diesel.
- Visit [HM Revenue and Customs](#) web pages for more information about bio diesels and tax.
- Low Impact Living Initiative has produced a [general bio diesel information sheet](#) giving an introduction to bio diesel and its pros and cons



Where to buy bio diesel

- Producing bio diesel without proper equipment and safety precautions can be dangerous. [The Environment Agency](#) provides details about the regulations surrounding bio diesel production.
- The bio diesel being trialled on the Broads has been developed by Norfolk based Global Commodities UK. Details can be found at www.globeco.co.uk, by calling 01362 821 582.
- A list of outlets in the UK selling bio diesel can be found at www.biodieselfillingstations.co.uk or by visiting www.greenfuels.co.uk
- Blooming Futures specialise in LPG and CNG conversions and can also help to switch to 100% renewable energy, look at www.bloomingfutures.com/entrypage.html for more information.