

What Is BIO-DIESEL?

Biodiesel is, like anything grown in the plant world, essentially a renewable source of energy. Biodiesel is an organic (not synthetic) fuel made from plants. It is very similar to cooking oil. Unlike cooking oil, properly processed biodiesel can go straight into a diesel engine without any need to modify the engine. A diesel engine can run on biodiesel or regular diesel or any mix of the two. Biodiesel is usually made from waste oils although dedicated fuel crops and algae are also options. The term 'Biodiesel' is often used to describe a mix of 5% biodiesel with 95% fossil diesel. We deal only with 100% biodiesel. Other so called 'green fuels' (for example LPG or CNG) are still fossil fuels and still add carbon to the atmosphere. The use of 100% Biodiesel in a vehicle does not! Unfortunately, not all Biodiesel is grown responsibly and so we do not support that kind of biofuel. Instead we make doubly sure that all our fuel is sourced locally and from sustainable sources.

The Benefits of Biodiesel

- **The Environmental Advantage** – see next page
- **Reduced Dependency on imported fuels** – the implication of this dependency was made apparent by the Iraq war.
- **Superior Fuel for engines** – engine specialists are enthusiastic about Biodiesel. Its properties

as a fuel are superior compared to mineral fuels in terms of both advanced lubricity (making engine sound quieter and smoother) and a higher energy density (slightly more power). Between 1996 and 2004 all diesel cars made by VW, Audi, Skoda and Seat were officially 100% biodiesel compatible. Other makes work fine too (ask for further details).

- **Job creation** – as more demands are made from our land, current unused land will start to be farmed. This will create jobs.
- **Improved health** – the fumes from biodiesel are not carcinogenic or mutagenic and cause less bronchial irritation (for example, on a local level exhaust emissions are both reduced and less harmful).

The Environmental Advantage

The use of 100% biodiesel in a vehicle is **Carbon Neutral**. Even the full lifecycle of production has the potential to be Carbon Neutral (for example, if tractors which grew the crops ran on biodiesel, etc.). Carbon Neutral means that the activity does not add any extra carbon to the atmosphere. In this case it is because biodiesel utilises the amount of carbon that naturally circulates between the atmosphere and the biosphere. Carbon is absorbed by the growing plant, through photosynthesis, and when the plant decomposes or is burnt – in this case in the form of biofuel – it releases the same amount of carbon back into the

atmosphere, so the overall level of carbon in the atmosphere is unaffected. So, in this regard, all plant-based fuels are good.

Fossil fuels extract deposited carbon from underground mineral stores and when this is burnt it adds extra carbon to the atmosphere. It is this additional carbon which causes global warming. We need some carbon to circulate, but it must be the right amount! Global warming is changing habitats making it impossible for some species to survive. This is arguably the most important of all environmental issues as extinction is irreversible. Up to 60% of all life's species are threatened if global warming remains unchecked.

To do more for the environment, change to biodiesel, reduce energy consumption and switch to a clean electricity supplier (see www.electricityinfo.org for the greenest suppliers). You can make a difference.

Is my Car OK on Biodiesel?

Rudolf Diesel designed the diesel engine to run on plant oil so in theory all diesel engines can run on biodiesel. However, it's the parts attached to the engine that could potentially make the vehicle incompatible with biodiesel use, not the engine itself. Please note that biodiesel is **not suitable for all vehicles** – **consult vehicle manufacturer before use**. However, experience has shown that

all diesel cars made between 1990 and 2004 run well on 100% biodiesel. Vehicles built before 1990 should not use biodiesel as they may have natural rubber parts which perish with the use of Biodiesel (or replace those parts first). Vehicles built after 2004 should, as a precaution, use only blends of 50% biodiesel or less (high pressure pumps and fuel filters are more fussy).

To ensure you refuel your vehicle safely, use biodiesel manufactured to EN14214 specification. The certification process is, however, expensive and adds significantly to the price of the fuel. PLEASE NOTE: our fuel, whilst manufactured using the same high quality processes and materials as fuel which is certificated to EN14214, does not carry this formal certification, so we recommend you use a 50% blend only for this reason and because of potential freezing at exceptional temperatures (see below).

IMPORTANT: Biodiesel will freeze in an average English winter. As a precaution against this, all biodiesel supplied by Stroud Biodiesel Club between November 1st and March 31st each year contains additives which reduces the freezing point to around -18°C.

Club Details

Stroud Biodiesel Club has been formed to enable individuals in the area to use biodiesel. We started as a group of individuals who had been using biodiesel for a few years and wished

to continue (previous commercial outlets for biodiesel in the area have failed). To this end we have taken a 'not for profit' approach and set up the Club – open anyone who lives in the Stroud area – to encourage other drivers to join us in reducing our carbon footprint. Loans are greatly appreciated to help this initiative progress, so if you are in a position to lend an amount (above £50) – it would really support our enterprise. For existing members, this is your Club too, and we can make it into whatever we want. Once you become a member, you will be able to buy biodiesel 24/7 from our self-service pump in South Woodchester. The fuel itself is sold at 15p below the most expensive local garage. Upkeep of the outlet/pump and Club is paid from a small monthly subscription paid by all members equally.

To obtain Biodiesel, contact **Stroud Biodiesel Club** and ask for an Application Form.

Stroud Biodiesel Club

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Stroud Biodiesel Club



Reconnect with Nature

*Biodiesel is the **environmentally friendly** alternative to fossil diesel. It is basically a fuel made from plants – meaning it is part of the natural carbon cycle.*

***NO Conversions** are needed on the majority of diesels (see inside for details)*

NO Global Warming** – the use of 100% Biodiesel in a vehicle does not add to global warming or species extinction! Even the lifecycle of biodiesel could be carbon neutral! Also, our fuel is sourced and produced **LOCALLY!

- **No Conversions**
- **No Global Warming**