

## Biodiesel

Biodiesel, an alternative transportation fuel made from animal or vegetable materials that has been used in motor vehicles since the beginning of the automobile industry, can be substituted for petroleum-based diesel (petro diesel) fuel. Vehicles using biodiesel emit fewer pollutants than petro diesel, although they also generally get fewer miles per gallon. Biodiesel is meant to be used in standard diesel engines and is thus distinct from the vegetable and waste oils used to fuel converted diesel engines. Biodiesel can be used alone, or blended with petro diesel in any proportions. Biodiesel can also be used as a low carbon alternative to heating oil. Its applications:

1-Vehicular use and manufacture acceptance

2-Railway usage

3-Aircraft use

4-Heating oil

5-Used in generators Environment,

Health & safety: Greenhouse Gas Emissions

Although biodiesel releases carbon dioxide when burned, these emissions are considered part of the earth's natural carbon cycle and represent no net increase in CO<sub>2</sub>. 2-Air Pollution (Non-Greenhouse Gas) Biodiesel combustion emits nitrogen oxides. Experts have disputed whether NOX emissions from biodiesel are greater or less than those from fossil fuels, but recent studies by the National Renewable Energy.

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