

DIESEL FUEL SUPPLIES IN THE UK
With special reference to marine diesel

Believed to be accurate information as at September 2016 (some amendments made 23 October 2017)

To contact the author click [here](#)

BS - British Standard
FAME - Fatty Acid Methyl Ester (also known as biodiesel)
HMRC - Her Majesty's Revenue & Customs
ISO - International Standards Organisation
tbc - to be confirmed

Notes are at the end of the table

Standard: BS ISO 8217 (2010)

Trade names: DMA

Taxation: Dyed red. See notes below.

Intended purpose: Marine Fuel

FAME content: 0.1% but in practice should be FAME-free

Water content: should be nil

Maximum sulphur content: 1%

Minimum density: 890.0 kg/m³

Minimum flash point: 60°C

Comments: Safer to store and transport due to higher minimum flash point

Availability: BP Eastham and Esso Hythe (Southampton)

Standard: BS2869

Products meeting this specification are available in two forms:

Trade names: **Class D Gas Oil, 1000ppm, 0.1% & LSGO (Low Sulphur Gas Oil)**

Taxation: Dyed red. See notes below.

Intended purpose: Non-road land use (but is also known to be offered as marine fuel)

FAME content: the standard permits up to 7% FAME but products with the above trade names are almost always below 0.1% - CHECK WITH YOUR SUPPLIER IF OFFERED THIS PRODUCT

Maximum sulphur content: 0.1%

Minimum density: tbc

Minimum flash point: 60°C

Comments: This is the old version of inland Gas Oil that has a 0.1% sulphur content and is now only legally available to use for marine deliveries, power stations and anyone else with special dispensation from the government

Availability: Known to be available in 2016 at Conoco Immingham, Great Yarmouth and Aberdeen, and Nustar Grangemouth and Inverness.

Trade names: **A2 Gas Oil, 10ppm, 0.001% & ULSGO (Ultra-Low Sulphur Gas Oil)**

Taxation: Dyed red. See notes below.

Intended purpose: Non-road land use (but is also known to be offered as marine fuel)

FAME content: the standard permits up to 7% FAME but products with the above trade names are almost always below 0.1% - CHECK WITH YOUR SUPPLIER IF OFFERED THIS PRODUCT

Maximum sulphur content: 0.001%

Minimum density: tbc

Minimum flash point: exceeds 60°C

Comments: This is the product which is usually offered for all inland purposes including agricultural, construction, and heating. Some commercial marine customers are known to refuse this product for reasons unknown to the author.

Availability: all UK refineries

Standard: BS EN 590

Trade names: tbc

Taxation: Un-dyed ("white")- always taxed at the rate due for road use (see special note below)

Intended purpose: Road vehicles obliged to pay UK road fuel duty

FAME content: 1% to 6%

Maximum sulphur content: tbc

Minimum density: tbc

Minimum flash point: tbc

Comments: This is what you should expect to buy at a UK roadside filling station.

Availability: all UK refineries

NOTES

Trade names: I am aware that other trade names are in use and would appreciate additional information.

Taxation: There are two types of tax on diesel fuel in the UK, Excise Duty and VAT (Value Added Tax). Diesel fuel in its "natural" state is almost clear or "white". In the UK red dye is added to denote that the fuel may be sold at lower rates of excise duty, and this is universally known as "red diesel". Some European countries prohibit the use or carriage of red diesel and some customs officers in Belgium have fined boat owners for having it aboard. Current UK rates of duty were published [here](#) (at 23 October 2017). VAT is charged at two rates, a low rate for domestic and residential use which in practice means diesel heaters and generators, and a higher rate for propulsion. A concession by HMRC is that recreational motor boats may pay both excise duty and value added tax at the volumetric rates of 60% propulsion/40% domestic which results in an overall lower rate of tax. Some boat owners have reported being able to take on a supply of red diesel for winter heating and generating purposes at the lower rate of duty and tax for the whole supply.

FAME content: Most boat owners know about biodiesel because of the risk that when both biodiesel and water are present in a fuel tank there is a risk of bacterial growth at the oil/water interphase which can clog fuel filters. Because the standards all permit some FAME content those boat owners who wish to ensure there is no biodiesel in their fuel need to obtain written confirmation that this is the case.

Maximum sulphur content: further research needed for some products

Minimum density: further research needed for some products

Minimum flash point: further research needed for some products

Availability: refers to refineries and refiners' loading points (known as racks). It does NOT refer to retailers or road tanker operators. For example, the Esso refinery at Fawley supplies fuel via a pipeline to its loading rack at Hythe where road tankers bearing the brands of many UK retailers can load fuel. In addition to the principal UK branded retailers there is a diminishing number of specialist retailers who supply agricultural, construction, home heating and marine customers in smaller tankers.

Additives: Retail filling stations and most marinas usually receive deliveries in tankers branded with an oil company name, and the same applies to many marine fuel outlets, but as explained above the branding on the tanker does not tell you where the fuel was refined. The only information which the tanker branding may provide concerns fuel additives which each retail brand adds to the fuel, either in tankage at the refinery or when loading a road tanker. Other additives are available for individual users to purchase. In the UK the market-leading additives are biocides, not lubricity enhancers. Some marine fuel retailers claim to add biocides or other additives to their fuel.

OTHER NOTES RELEVANT TO MARINE DIESEL FUEL

Suppliers: Most marinas will supply "red" diesel priced per litre at the 60/40 rate of duty and VAT, but few are able or willing to answer questions about their rate of turnover or average age of the diesel in their tanks or even whether the diesel is FAME-free or not. Some ports have specialist fuel barges or other refuelling points and some of these will be able to provide this information. The only way to be certain of obtaining fuel of a known standard and age is to buy a tanker load from a fuel distributor who will provide written

confirmation of the standard to which the fuel conforms and discharge the fuel direct from the tanker into the vessel. The number of places where this is possible is very limited. The best opportunities are found in locations where large fishing vessels refuel from road tankers routinely.

OTHER NOTES NOT RELEVANT TO MARINE USE OF DIESEL

"Roads" and "Highways": Road vehicle rates of duty are paid in most (not all) instances where a vehicle is used on a public road. HMRC define a public road as one which is maintained at the public expense. Such a road is not necessarily a highway under the Highways Act 1980.