

Question & Answer Session

ID	Question	Answer
12	What is the total carbon footprint of HVO production (including sourcing and associated transport and collection processes) compared to 'traditional' Diesel production?	Considering well to wheel analysis, the main difference between HVO and diesel fuel lies in the combustion phase. CO ₂ emitted during the combustion of HVO is considered to be zero, because it is the same CO ₂ that was previously absorbed by the biomass to grow. For Enilive production in 2025 the average GHG saving of HVO compared with fossil mix was 79,5%.
13	HVO used in test was comparable with EN590 Diesel fuel, or was different (e.g. higher cetane number)?	HVO used in test fulfils EN 15940 specification, that is different from Diesel fuel specification (EN 590). HVO has a greater cetane number, lower aromatic and sulphur content and lower density.
14	Could you please comment on the price and cost components of HVO compared with FAME and conventional diesel? And finally on the total cost?	Currently, in Italy, HVO is priced at the pump at the same level as conventional diesel fuel.
15	<p>You explained very clearly that the absence of aromatics is one of the key characteristics of this fuel. However, not all applications in the railway sector are designed as native HVO systems. If this fuel is used in non-native HVO applications, are there any risks for seals that have already been operating with standard diesel? If so, what types of degradation or compatibility issues should be expected?</p> <p>This aspect is particularly critical from a safety perspective, as any seal deterioration could potentially lead to fuel leaks and an increased risk of fire.</p> <p>Additionally, are there any potential risks or compatibility concerns related to the catalytic systems?</p>	If the vehicle is not validated for the use of HVO (EN 15940 specification), we recommend consulting the manufacturer who knows all the details of the vehicle.

16	Thank you for your answer to the UN number question. As there are three entries for UN1202, I suppose you use "DIESEL FUEL complying with standard EN 590:2013 + A1:2017 or GAS OIL or HEATING OIL, LIGHT with a flash-point as specified in EN 590:2013 + A1:2017". In RID this has a different packing instruction then the other two entries fro 1202 and a different tank code then the third 1202 option needs to be equipped with a "breather device, according to 6.8.2.2.6, fitted with a device protecting against the propagation of a flame; or explosion pressure shock resistant tank.	You can find this detailed information in the Safety data Sheet.
17	What is the prospect of a reduction in the use of vegetable oils for HVO production, and what feedstocks could be used for HVO production in the future?	HVO producers are always looking for new and more sustainable raw materials suitable for HVO production.
18	Can mineral oils be used to produce HVO?	No, the HVO production process only transforms vegetable oils, that have a different chemical structure than mineral oil.
19	What are your suggestions for testing HVO on engines that are not approved for use by the manufacturer?	In general use of pure HVO in substitution to standard fossil diesel fuel doesn't have counterindications, noting that HVO for its nature is totally comparable to the fossil one. Anyway, is recommended to contact the specific OEM to avoid unexpected strange behaviours, or damages
20	Can HVO help reduce reducing agent consumption in exhaust gas post-treatment systems?	HVO reduces the frequencies of DPF regeneration, due to the different nature of particulate matter produced during combustion, and this contribute to avoid oil dilution problems related to extra post injection. In general, there aren't scientific proofs that HVO could influence the ageing of the ATF system
21	Can HVO degrade fuel system seals, or accelerate their degradation compared to diesel?	No. HVO doesn't deteriorate fuel system seals. In some cases, older sealings, it could influence the swelling behaviours due to the absence of aromatic components into HVO
22	Can HVO be produced using hydrogen or ammonia?	The HVO production process uses hydrogen
23	Can the use of HVO cause sludge and sediment to detach from the bottom of tanks or fuel lines, causing filter clogging?	No, there is no proof the HVO has a cleaning or detergent action.
24	Can HVO contribute to increased fuel filter degradation?	Not at all. HVO doesn't contain elements that could affect diesel fuel filters