

Biofuel – Lowering GHG emissions without changing anything else

Learn how biofuels are produced and how it may support your logistics' decarbonisation goals and get familiarised with Maersk's policy on green fuels.

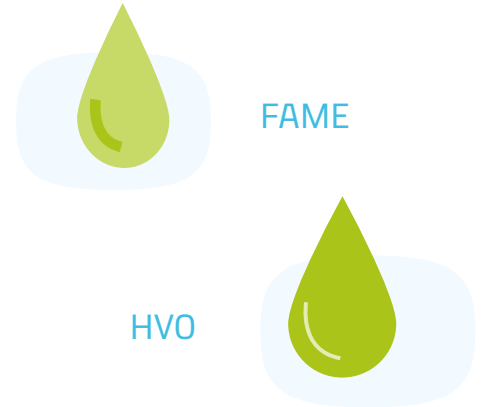
What are biofuels?

Biofuel is a fuel that is produced over a short time span from feedstocks, rather than by the slow natural processes involved in the formation of fossil fuels, such as oil. Biofuels emit fewer greenhouse gases when burned in an engine and are generally considered carbon neutral as the climate emitted has been captured from the atmosphere by the crops used in the production process.

Types of biofuels – FAME vs HVO

There are two types of biofuels used in shipping - FAME (Fatty Acid Methyl Esters) and Hydrotreated Vegetable Oil (HVO).

FAME is considerably less expensive than HVO and the residuals from its production can also be used in our vessel engines with high savings. Additionally, FAME used for shipping requires less processes without affecting the emissions savings as well. On the other hand, HVO has high production costs and a limited number of suppliers globally. Hence, Maersk ECO Delivery uses FAME as the biofuel of its choice.



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Maersk policy on green fuels

Maersk has a stringent policy for biofeedstocks and biofuels used for ECO Delivery and is governed by three pillars:

1. Certification and proof of sustainability

- All biofuels must be certified by a 3rd party to ensure its credibility.
- All fuels must have a proof of sustainability (POS) under a RSB or ISCC mass balance to support any emission saving claims made against a fuel.
- Maersk accepts RSB and ISCC certified biofuels with preference for RSB. The ISCC PLUS certification must have the additional GHG add-on (205-01).

2. Feedstocks

- Maersk only accepts wastes, residues and by-products as feedstocks with preference for the feedstocks for advanced biofuels in Annex IX of the EU Renewable Energy Directive (2018/2001) (with some exceptions). Forestry waste and residues must originate from FSC certified forest or equivalent.
- Maersk does not accept any first-generation crops (e.g., corn, soy, rapeseed, palm, sugar cane, sugar beet, sunflower, energy crops) or feedstock commonly used for feed purposes.
- Maersk does not accept any first-generation woody biomass (e.g., roundwood).
- Maersk does not accept any feedstock related to palm oil including waste and residue feedstocks derived from palm oil production (e.g., palm oil mill effluent (POME), empty fruit bunches, palm fatty acid Distillate (PFAD), spent bleach earth oil).



3. Lifecycle GHG savings

- Fuels must meet the minimum reductions in Article 29(10) of the EU Renewable Energy Directive (2018/2001) which is about 65-70% depending on production plant age compared to fossil reference fuel.

Future of biofuels

Technologies are being developed to enable more scalable and competitive methods of producing biofuels such as methanol (bio-methanol and e-methanol), ammonia (Green Ammonia) and lignin fuels (new biofuel based on lignin-alcohol blends). These biofuels can be used for ECO Delivery because they are fully zeroemission fuels and can be produced at scale from renewable electricity alone. We are excited about these developments and are keeping a keen eye on them to find the next best fuel for our fleet.

For any further queries regarding biofuels in shipping, do get in touch with our experts. [Contact us](#)