

- IDEALFUEL -

Lignin as a feedstock for renewable marine fuels

GRANT AGREEMENT No. 883753

HORIZON 2020 PROGRAMME - TOPIC LC-SC3-RES-23-2019

“Development of next generation biofuel and alternative renewable fuel technologies for aviation and shipping”



Deliverable Report

D5.5 – Safety onboard



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Publishable summary

IDEALFUEL aims to develop an efficient and low-cost chemical pathway to convert lignocellulosic biomass into a **Biogenic Heavy Fuel Oil (Bio-HFO)** with ultra-low sulphur levels that can be used as **drop-in fuel** in the **existing maritime fleet**. The safety analysis carried out in task 5.4 serves to ensure safety compatibility at the pilot scale (TRL5) of the Bio-HFO over the whole blending range for usage in current maritime fuel systems for assessment by the relevant regulatory bodies. This is achieved by using input from other work packages in the project, in particular WP3 and 4 with regards to composition and physico-chemical properties of the newly produced fuel and its blends. This information is then subsequently compared to a reference system (provided by an industry partner) and current safety standards (ISO 8217) to assess potential safety hazards such as lower auto-ignition temperatures and higher evaporation rates (lower evaporation pressure) which can hinder successful introduction into the market. As an outcome of the deliverable, possible safety related risks are mentioned to the extent that the fuel could be evaluated in the context of conditions presents on board.

5. Acknowledgement

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Project partners:

#	Partner short name	Partner Full Name
1	TUE	Technische Universiteit Eindhoven
2	VERT	Vertoro BV
3	T4F	Tec4Fuels
4	BLOOM	Bloom Biorenewables Ltd
5	UNR	Uniresearch B.V.
6	WinGD	Winterthur Gas & Diesel AG
7		(Formerly SeaNRG, is now GOODFUELS #12)
8	TKMS	Thyssenkrupp Marine Systems GMBH
9	OWI	OWI – Science for Fuels gGmbH
10	CSIC	Agencia Estatal Consejo Superior De Investigaciones Cientificas
11	VARO	Varo Energy Netherlands BV
12	GOOD	GoodFuels B.V.



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