\*\*\* Techno-economic feasibility of Olive-residue based biohubs for marine biofuel production: A capability-sensitive and context-specific approach in the Mediterranean region \*\*\*

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\*\*\*General Introduction\*\*\*

This dataset contains data collected during simulations and assessments as part of Sivaramakrishnan Chandrasekaran's PhD project. The data was collected from 2021-2024.

It is being made public both to act as supplementary data for publications and the PhD thesis of Sivaramakrishnan Chandrasekaran, and in order for other researchers to use this data in their own work.

The data in this dataset were collected in the section Biotechnology and Society of the Delft University of Technology - Faculty of Applied Sciences, between October 2021 and December 2024.

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\*\*\*Purpose of the Simulation\*\*\*

The purpose of these Aspen simulations was to develop process models of the HTL process using crude olive pomace residues. The Process simulations generated the mass and energy balances for steady-state operating conditions obtained from experimental data for the HTL process from the Literature. The mass and energy balances were further used to perform techno-economic analysis, as mentioned in “.xlsx” files.

\*\*\*Process simulations and Techno-economic analysis\*\*\*

All simulations were performed in Aspen Plus v12.0 software. The techno-economic analysis was performed in MS Excel.

\*\*\*Description of the data in this data set\*\*\*

The data included in this dataset has been organised per processing capacity of the biorefinery. The files follow the nomenclature system: HTL olive pomace\_status of the Aspen file\_date recently modified\_processing capacity\_\_special operating conditions.