

## **A Database of Pure-Component and Mixture Data for Biofuel-Related Compounds**

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Pure-component and mixture data for biofuel-related compounds are important for process design and development involving these compounds. To help fulfill this need, a database has been developed that currently includes about 35 compounds. These include some sugars, triglycerides (as well as their associated fatty acid methyl & ethyl esters), and a few other biofuel compounds. The database includes values for 50 pure-component properties, both constant properties such as melting point and critical point and temperature-dependent properties such as vapor pressure and liquid density. Additionally, available mixture VLE, LLE, and VLLE data extracted from the literature are included for binary and ternary mixtures. The data have been critically evaluated using DIPPR<sup>®</sup> 801 project procedures. These evaluations include tests for thermodynamic consistency, family comparisons and the use of best-available prediction techniques to supply values where no experimental data exist.