

Bio-oil is a liquid fuel made from biomass, such as sawdust and bagasse. It is environmentally friendly and sustainable.

Section: BIOFUELS
Bio-oil Characteristics

Tests	Methods	Results	Units
Water Content	Karl Fisher	2.0	%wt
pH	Phmeter	2.2	
Density @ 15°C	ASTM D4052	1.207	Kg/L
High Heating Value	DIN51900	17.57 (7,554 BTU/lb)	MJ/Kg
Low Heating Value	DIN51900	15.83 (6,806 BTU/lb)	MJ/Kg
Solids Content	Insolubles in Ethanol	0.06	%wt
Ash Content	ASTM D482	0.0034	%wt
Pour Point	ASTM D97	-30	
Flash Point	STM D93	48.0	
Conradson Carbon	ASTM D189	16.6	%wt
Kinematic Viscosity			
@ 20°C	ASTM D445	47.18	mm ² /s
@ 50°C	ASTM D445	9.726	mm ² /s
Carbon	ASTM D5291	42.64	%wt
Hydrogen	ASTM D5291	5.83	%wt
Nitrogen	ASTM D5291	0.10	%wt
Sulphur	ASTM	0.01	%wt
Chlorine	ASTM	0.012	%wt
Alkali Metals	ICP	<0.003	%wt

Source:

<http://www.dynamotive.com/assets/resources/PDF/PIB-BioOil.pdf>

Note:

%wt = percent by weight; Kg = kilogram; L = liter; MJ = megajoule
 mm²/s = square milimeter per second; BTU/lb = British thermal unit per pound.