

# UL91

## Technical Data Sheet

UL 91 is an unleaded fuel that conforms to strict aviation standards. It is intended for piston engine aircrafts.

### Qualification

- Unleaded Aviation Gasoline

### Typical Properties

Property	Unit	Test Method	Test Results
Net heat of combustion	MJ/kg	ASTM D 3338-09	<b>43.50</b>
Motor octane number	-	ASTM D 2700-17a	<b>91.8</b>
Sulfur	mg/kg	ASTM D 5453-19a	<b>1.4</b>
Tetraethyl lead <sup>* Note 2</sup>	g/L	ASTM D 3341-16	<b>LT 0.026</b>
Vapor pressure equivalent at 37.8°C	kPa	ASTM D 5191-20	<b>43.9</b>
Density at 15°C	kg/m <sup>3</sup>	ASTM D 4052-18a	<b>723.3</b>
Distillation	-	ASTM D 86-19	
Initial boiling point	°C		
10% recovered	°C		
40% recovered	°C		<b>37.5</b>
50% recovered	°C		<b>68.4</b>
90% recovered	°C		<b>99.0</b>
Final boiling point	°C		<b>104.0</b>
Sum of 10% + 50% evaporated temperatures	°C		<b>112.2</b>
Recovery	°C		<b>135.3</b>
Residue	°C		<b>170.5</b>
Loss	volume %	<b>97.9</b>	
	volume %	<b>0.9</b>	
	volume %	<b>1.2</b>	
Freezing point	°C	ASTM D 2386-19	<b>LT-65.0</b>
Corrosion copper strip at 100°C, 2 hrs	-	ASTM D 130-19	<b>1a</b>

Oxidation stability (5h aging)	-		
Potential gum	mg/100mL	ASTM D 873-12	<b>2.0</b>
Precipitate	mg/100mL		<b>Nil</b>
Water reaction	-		
Change in volume	mL	ASTM D 1094-07	<b>0.0</b>
Condition of interface	-		<b>1</b>
Degree of separation	-		<b>(1)</b>
Electrical conductivity	pS/m	ASTM D 2624-15	<b>17</b>