

Sub-Octane Unleaded Gasoline Specifications
Grades: V3, V3S 82.0 Octane Unleaded Gasoline

(Conventional Gasoline - This product does not meet the requirements for reformulated gasoline and may not be used in any reformulated gasoline covered area.)

The following parameter applies before blending with 10% denatured fuel ethanol.

Product Property	Test Method	Origin		Deliveries ^{1/}
		Minimum	Maximum	
Gravity, °API	D287		Report	
Color			Undyed	
Volatility ^{2/}				
E200 (vol %)	D86		Report	
E300 (vol %)	D86		Report	
Benzene, vol %	D3606		4.9	
Aromatics (vol %)	D1319		Report	
Olefins (vol %)	D1319		Report	
Mercaptan Sulfur, wt % ^{3/}	D3227		0.003	
Copper Corrosion	D130		1	
Silver Corrosion	D7667, D7671		1	
Gum, Existent, mg/100 ml	D381		4	5
Oxidation Stability, minutes	D525	240		
Phosphorus, g/gal	D3231		0.003	0.005
Lead, g/gal	D3237		0.010	0.05
Sulfur, ppm	D2622		80	
Oxygenates, vol %	D4815, D5599		0.05	
Haze Rating ^{4/}	D4176		2	3
NACE Corrosion	TM0172, D7548	B+		
Odor ^{5/}			Nonoffensive	

The following parameters apply either before or before and after blending with denatured fuel ethanol at 10%

Octane	Method	Base Gasoline		
RON, min	D2699	Report		
MON, min	D2700	79.0		
(R+M)/2, min		83.0		
Octane		Base Gasoline	and	Blended with 10% Ethanol
RON, min	D2699	Report		Report
MON, min	D2700	Report		Report
(R+M)/2, min		82.0		86.0

The following parameters apply after blending with denatured fuel ethanol at 10%

<u>Product Property</u>	<u>Method</u>	<u>Origin</u>			
Distillation,	D86				
10% Evap (T10), °F		Report			
20% Evap (T20), °F		Report			
50% Evap		150°F			
(T50), °F, min					
RVP ^{6/}	D5191	Report			
Vapor to Liquid Ratio	<u>Class 1</u>	<u>Class 2</u>	<u>Class 3</u>	<u>Class 4</u>	<u>Class 5</u>
D5188, min ^{2/7/}	129	122	116	107	102

- 1/ Delivered products meets all applicable requirements at time and place of delivery.
- 2/ Refer to Magellan’s Seasonal Gasoline Volatility Classes and Schedule of Origin Volatility requirements.
- 3/ Mercaptan Sulfur determination is waived if the result of the Doctor Test ASTM D4952 is negative.
- 4/ Compliance with ASTM D4176 will be determined using Procedure 2 at the following temperatures, adjusted seasonally:

February 16 – September 30	55 °F max
October 1– February 15	45 °F max
- 5/ Any gasoline exhibiting an offensive odor and/or containing more than 0.30 wt % dicyclopentadiene will not be accepted for shipment.
- 6/ RVP limits on ethanol blended gasoline are controlled by various federal and state regulations and waivers, which are generally greater than the limits for base gasoline.
- 7/ D5188 is the referee test method. The alternate equation in D 4814 may also be used.