



Cenex® Gasoline Specifications for Glendive MT, Missoula MT and Minot ND



| | ASTM Method | Specifications | |
|------------------------------------|-------------|----------------|----------------------|
| | | Min | Max |
| Corrosion 3 hours at 122°F | D130 | | No. 1 |
| Mercaptan Sulfur, Wt. % | D3227 | | 0.002 ⁽¹⁾ |
| ASTM Gum, mg/100 ml | D381 | | 4.0 |
| Oxidation stability, minutes | D525 | 240 | |
| Sulfur wt. % | D2622/D5453 | | 0.008 |
| Lead, Grams/Gal. | D3237 | | 0.010 |
| Phosphorus, Grams/Gal. | D3231 | | 0.003 |
| Benzene, Wt. % | D3606 | | 4.9 |
| Silver Corrosion | D130 mod | | No. 1 |
| <u>OCTANE GRADE (R+M/2)</u> | D2699/2700 | | |
| Unleaded | | 87.0 | |
| Premium Unleaded | | 91.0 | |

FUEL VOLATILITY (2)(5)

| | May, June, July, Aug, Sept 1-15 | Sept 16-30 | April & Oct | Nov thru March | |
|------------------------------|---------------------------------------|------------|-------------|----------------|------------|
| RVP Max. | 8.9 ⁽³⁾ | 11.5 | 13.5 | 15.0 | ASTM D5191 |
| V/L of 20 at °F, Min | 133 | 116 | 116 | 105 | Calc |
| Driveability Index, Max | 1250 | 1230 | 1220 | 1200 | ASTM D4814 |
| Distill. Evap. of °F, 760 mm | | | | | ASTM D86 |
| 10% Max. | 158 | 140 | 131 | 122 | |
| 50% Min. | 170 | 170 | 170 | 150 | |
| 50% Max. | 250 | 240 | 235 | 230 | |
| 90% Max. | 374 | 365 | 365 | 365 | |
| End Point Max. | 437 | 437 | 437 | 437 | |
| Residue Max., Vol. % | 2 | 2 | 2 | 2 | |
| COLOR: | Unleaded | Undyed | | | |
| | Premium | Undyed | | | |
| | Unleaded | | | | |

NOTES:

- (1) May be waived if Doctor negative by ASTM D4952
- (2) Indicates when product should be available at terminal
- (3) Absolute Max. RVP 9.0 as determined by EPA methods
- (4) Max 430 FBP for delivery of fuel into the Magellan, Seminole and Yellowstone Pipeline system

Driveability index= 1.5xT10% +3.0xT50% +1.0xT90%+2.5x%ethanol ; T=evaporated temperatures