## MAGELLAN• <br> D Grade High Cetane \#2 Ultra Low Sulfur Diesel Fuel Specifications

| Product Property | Method | Minimum | Maximum | Deliveries ${ }^{1 /}$ |
| :---: | :---: | :---: | :---: | :---: |
| Gravity, ${ }^{\circ} \mathrm{API}$ | D287 | Report |  |  |
| Color | D1500 |  | 2.0 | 2.5 |
| Distillation ${ }^{5 /}$ | D86, D2887 |  |  |  |
| IBP, ${ }^{\circ} \mathrm{F}$ |  | 340 |  |  |
| 50\% Recovered, ${ }^{\circ} \mathrm{F}$ |  | 460 |  |  |
| 90\% Recovered, ${ }^{\circ} \mathrm{F}$ |  | 540 | 640 |  |
| Copper Corrosion | D130 |  | 1 |  |
| Cetane |  |  |  |  |
| Cetane Number Or | D613 | 48 |  |  |
| Cetane Index, A or B | D4737 | 48 |  |  |
| Cetane Index ${ }^{2 /}$ | D976 | 40 |  |  |
| Flash Point, ${ }^{\circ} \mathrm{F}$ | D93 | 140 |  | 140 |
| Stability |  |  |  |  |
| Thermal, \% reflectance (W or Y) | D6468 (W) | 75 |  |  |
|  | D6468 (Y) | 82 |  |  |
| Aging Period (Minutes) | D6468 | 90 |  |  |
| Carbon Residue on 10\% Bottoms, wt \% | D524 |  | 0.20 |  |
| Cloud Point, ${ }^{\circ}{ }^{3 /}$ | D2500 |  |  |  |
| Pour Point, ${ }^{\circ} \mathrm{F}^{3 /}$ | D97 |  |  |  |
| Viscosity, cSt at $104{ }^{\circ} \mathrm{F}$ | D445 | 1.9 | 4.1 |  |
| Ash, wt \% | D482 |  | 0.01 |  |
| Haze Rating ${ }^{4 /}$ | D4176 |  | 2 | 3 |
| NACE Corrosion | TM0172, D7548 | B+ |  |  |
| Sulfur, ppm | D2622 |  | 11 |  |

## MAGELLAN• <br> D Grade High Cetane \#2 Ultra Low Sulfur Diesel Fuel Specifications (continued)

## Foot Notes:

1/ Delivered products meet all applicable requirements at time and place of delivery
2/ ASTM D976 result is required for ultra-low sulfur diesel fuel to demonstrate aromatics compliance per 40 CFR 1090.305.

3/ Month
January
February
Pour Point ${ }^{\circ}$ F, max
Cloud Point ${ }^{\circ}$ F, max

March
$0 \quad+14$
April $+10 \quad+20$
May $+10 \quad+20$
June $+10 \quad+20$
July $+10 \quad+20$
August $0 \quad+14$
September $0 \quad+14$
October $0 \quad+14$
November $0 \quad+14$
December $0 \quad+14$
4/ Compliance with ASTM D4176 will be determined using Procedure 2 at $77^{\circ} \mathrm{F}$ or tank temperature at the time of sampling, whichever is lower.

5/ ASTM D2887 Simulated Distillation results must be reported after D86 correlation.

Notes:

- D-grade complies with the ULSD standards of 40 CFR 1090.305
- D-grade is designated as ULSD in accordance with 40 CFR 1090.1015


## Additional Requirements:

Biodiesel: The presence of biodiesel is prohibited.

Dyes: D-grade shipments may not be dyed.

