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TECHNEWS

Marathon Petroleum Company LLC No.1 Diesel Fuel Must Not be Used as Kerosene

Marathon Petroleum Company LLC (MPC) currently offers the following No.1 and K-1 distillate products at our terminals:

- No.1 Ultra Low Sulfur Diesel (S 15)
- No.1 Low Sulfur Diesel (S 500)
- K-1 Kerosene

We are aware that some customers are buying clear or dyed No.1 Diesel and reselling it as clear or dyed K-1 Kerosene.

This practice is a misrepresentation of the product unless the No.1 Diesel is recertified as K-1 Kerosene before resale.

There are several differences between the No.1 Diesel specifications (ASTM D 975) and the K-1 Kerosene specifications (ASTM D 3699):

- ASTM D 86 10% maximum distillation temperature is 205°C for K-1, but there is no specification for No.1 Diesel.
- ASTM D 445 viscosity maximum is 1.9 mm²/s for K-1, but 2.4 mm²/s for No.1 Diesel.
- ASTM D 1266 sulfur maximum is 0.04% for K-1, but 0.05% for No.1 Diesel (S 500).

- ASTM D 156 Saybolt color minimum is 16 for K-1. There is no such specification for No.1 Diesel.

Additionally, the ASTM specification for Kerosene (ASTM D 3699) states “It is recommended that K-1 Kerosene used in unvented, wick-fed applications like space heaters be clear and undyed. Red dye can mask the presence of contaminants like diesel. Some of these contaminants may adversely affect the performance of unvented, wick-fed space heaters. Elevated sulfur content, higher aromatics and olefin content, associated with diesel contamination, are known to increase performance problems with wick-fed, unvented applications and can be detrimental to health. Additionally, insufficient health testing on red-dyed K-1 for use in unvented, wick-fed applications (like K-1 space heaters), has also resulted in a recommendation for the exclusion of red-dyed K-1 usage at this time.”