

Glossary of Technical Terms

Aniline Point:	Provides an estimate of the aromatic hydrocarbon content of hydrocarbon mixture
API Gravity:	See Specific Gravity
Asphaltenes:	The high molecular weight hydrocarbon components (asphalts and bitumens) which are soluble in carbon disulfide, aromatic solvents, and trichloroethylene, but not in paraffinic Naphtha.
Ash:	Non-combustible residue of fuel or lubricating oils. This material is in the form of soluble metallic additives and abrasive solids. Ash deposits can impair efficiency and contribute to component wear.
Bromine Number:	The magnitude of Bromine Number is an indication of the quantity of bromine-reactive constituents and also a measure of olefinic unsaturation.
Carbon Residue:	A measure of coked material remaining after a sample has been subjected to a high temperature in the absence of air. This is an approximation of the tendency for a fuel to form carbon deposits.
Cetane Number:	Expresses the ignition quality (resistance to burn) of a diesel fuel. A high Cetane Number indicates shorter ignition lag and a cleaner burning fuel.
Cloud Point:	The temperature at which a cloud or haze of wax crystals forms within a sample. The Cloud Point relates to the tendency for filter plugging at cold temperatures.
Color:	The comparison of the color of a fuel to known standards gives an indication of contamination or oxidation.
Compatibility:	A measure of compatibility of a residual fuel with respect to a specific distillate fuel. Results are expressed in an assigned numerical value (compatibility ratio).
Copper Corrosion:	The measure of a fuel's tendency to corrode cuprous materials which is important information when copper, bronze, or brass components are utilized.
Distillation:	A measure of the range of the volatility characteristics of a fuel as a sample is progressively boiled under controlled heating
Doctor Test:	Is performed in order to determine whether a sample is sweet or sour. Sulfur compounds cause sourness.
Flash Point:	The lowest temperature at which a fuel (vapor) will ignite above a liquid when exposed to an open flame.
Gum:	A measure of oxidation (residue) particles which may form in a fuel during storage. High gum levels can lead to the development of a sludge or to varnish deposits.
Micro-organism Culture:	A study for determining the presence of microbiological growth within a fuel.
Neutralization Number, Base Number:	A measure of acid levels in an oil.
Pour Point:	The lowest temperature at which a fuel is observed to flow when cooled under controlled temperature

Specific Gravity: The ratio of the mass of a given volume of fuel and the mass of an equal volume of water at the same temperature. The standard temperature is 60°F. The higher the Specific Gravity, the heavier the product.

Gravity may also be formulated and defined as AP Gravity.

API Gravity (degrees) = $(141.5 / \text{Specific Gravity}) - 131.5$ at 60/60°F

Spot Test, Olienses: A measure of the homogeneity or heterogeneity of the product

Sulfur: A common natural constituent of petroleum products. High sulfur content may be undesirable since it can cause corrosion or create an environmental hazard when burned.

Vapor Pressure: The force which must be exerted on the liquid to prevent it from vaporizing

Viscosity: The measure of a fuel's resistance to flow (in relation to time) at a given temperature. Kinematic viscosity is measured in capillaries or glass tubes and is reported in centistokes (cSt) or Saybolt Universal Seconds (SUS). Absolute Dynamic Viscosity is measured in centipoises (cP) or Poise (P) or in Pascal-seconds (Pa-s). Kinematic viscosity is related to the dynamic viscosity through the density of the fluid. Some viscometers can only give a relative viscosity.

Viscosity Index: An empirical number which indicates the effect of change of temperature on the viscosity of oil. A high viscosity index or VI denotes a low rate of change of viscosity with temperature.

Water and Sediment (BS&W): The determination of water and sediment by means of centrifugation. The results are reported in percent by volume.

Water Separometer Index: A measure of the tendency of jet fuels to retain fine particles and water droplets in suspension. A high index indicates a low tendency.

NOTE: For more detailed listing of terminology relating to petroleum products and lubricants, please refer to ASTM D 4175