

Nova's biodiesel distillation process ensures consistent removal of impurities resulting in superior product quality.

Moisture Content

- Nova's distilled biodiesel exceeds European and ASTM standards
- The ASTM Specification for water and sediment is 0.05% of volume. This is a very liberal standard considering the negative effect that water can have on fuel. The presence of these materials generally indicates poor fuel quality. Water and sediment will shorten filter life or plug fuel filters, which can lead to engine fuel starvation. In addition, water promotes fuel system corrosion and microbial growth.

Glycerin

- If glycerin remains in the finished biodiesel, or biodiesel fuel blend, it can result in fuel separation, material incompatibility, engine deposits and engine durability concerns. Nova's distillation ensures glycerin and glyceride removal.
- Mono-glycerides are impurities present in Biodiesel via the manufacturing process. It has been cited in the field that mono-glycerides promote the separation of themselves and other impurities during storage at either blended material or as B100. This separation thereby creates tank bottoms that are unusable as diesel fuel. This specification is presently under consideration with the EN and ASTM groups, and Nova's process ensures an acceptable level of this impurity. .

Methanol

- The higher the Flash Point, the less methanol in the biodiesel. The flash point temperature is the minimum temperature at which the fuel will ignite (flash) on application of an ignition source under specified conditions. Flash point minimum temperatures are required for proper safety and handling and Nova's distillation process results in very low methanol levels and very high flash points.

Cold Soak Filtration (*New Requirement effective 10/08*)

- Added October 13, 2008 to ASTM standard D6751 and all biodiesel must meet this standard.
- Nova's biodiesel meets requirements for cold weather biodiesel per this test (<200 second filtration)
- The intent of the new specification is to prevent fuel line freeze ups during winter months within cooler climates. The time measured in the Cold Soak Filtration test is representative of the time it takes the Biodiesel to pass through an equivalent fuel filter. The longer the filtration time the greater the probability of a fuel filter plugging.

Sulfur and Phosphorous

- Phosphorus has been shown to damage the ability of after-treatment systems to reduce exhaust emissions as intended.
- Nova's refineries consistently remove phosphorous and sulfur to levels well below 5 ppm and 15 ppm, respectively.