

# { BIODIESEL USAGE }

## CHECKLIST

**Basic Terminology:** Biodiesel is the pure, or 100 percent, biodiesel fuel. It is referred to as B100 or “neat” biodiesel.

A biodiesel blend is pure biodiesel blended with petrodiesel. Biodiesel blends are referred to as Bxx. The xx indicates the amount of biodiesel in the blend (i.e., a B20 blend is 20 percent by volume biodiesel and 80 percent by volume petrodiesel ).

- ▶▶ Ensure the biodiesel meets the ASTM specification for pure biodiesel (ASTM D 6751) before blending with petrodiesel.

The specification for biodiesel is designed to ensure that consumers will not experience operational problems from the fuel’s use. Make sure that biodiesel meets this specification and that the fuel supplier will warrant this fact. Quality fuel will provide the consumer with improved air quality and enhanced operability. Purchase fuel only from a reputable source.

- ▶▶ Check fuel filters on the vehicles and in the delivery system frequently upon initial biodiesel use, and change them as necessary.

Biodiesel and biodiesel blends have excellent solvent properties. In some cases the use of petrodiesel, especially #2 petrodiesel, leaves a deposit in the bottom of fuel lines, tanks, and delivery systems over time. The use of biodiesel can dissolve this sediment and result in the need to change filters more frequently when first using biodiesel until the whole system has been cleaned of the deposits left by the petrodiesel. This same phenomenon has been observed when switching from #2 to #1 petrodiesel.

Be aware of biodiesel's cold weather properties and take precautions as with #2 petrodiesel use in cold weather.

- ▶▶ A 20 percent blend of biodiesel with petrodiesel raises the cold weather properties at least 3° F (pour point, cloud point, cold filter plugging point). In most cases, this has not been an issue. Twenty percent biodiesel blends have been used in the upper Wisconsin area and in Iowa during -25° F weather without issues. Solutions to biodiesel winter operability problems are the same solutions used with conventional #2 petrodiesel (use a pour point depressant, blend with #1diesel, use engine block or fuel filter heaters on the engine, store the vehicles near or in a building, etc.).



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- ▶▶ Wipe painted surfaces immediately when using biodiesel.

Since biodiesel is a good solvent, it can, if left on a painted surface long enough, dissolve certain types of paints. Therefore, it is recommended to wipe any biodiesel or biodiesel blend spills from painted surfaces immediately.

- ▶▶ Store biodiesel or biodiesel blend soaked rags in a safety can to avoid • spontaneous combustion.

Biodiesel soaked rags should be stored in a safety can or dried individually to avoid the potential for spontaneous combustion. Biodiesel is made from vegetable oils or animal fats that can oxidize and degrade over time. This oxidizing process can produce heat. In some environments a pile of oil-soaked rags can develop enough heat to result in a spontaneous fire.

- ▶▶ Use stored biodiesel within six months.

All fuels, including #2 and #1 petrodiesel, have a shelf life. This is also true with biodiesel and biodiesel blends. Industry experts recommend that biodiesel be used within six months of purchase to ensure that the quality of the fuel is maintained. Storage time does not impact biodiesel distribution given biodiesel's production logistics. Biodiesel is generally not stored for long periods of time. Production levels and rates are established to meet demand (similar to "just in time" inventory methods).

The National Biodiesel Board is available to answer additional questions regarding the transition to biodiesel fuel use.

**ALL INFORMATION PROVIDED BY THE NATIONAL BIODIESEL BOARD**

