

If you could do something improve your child's health, wouldn't you? Biodiesel is a cleaner burning diesel fuel that significantly reduces the air pollution inside school buses. Biodiesel will work in any diesel school bus with few or no modifications, so schools can begin to mitigate health and air quality concerns quickly and relatively inexpensively for an immediate solution to air quality concerns.



Biodiesel Fact Sheet Biodiesel in School Buses

Why do school districts want to use biodiesel for their buses?

Health Benefits: Pollution from diesel buses has health implications for everyone, especially the children inside them. In 2002 the U.S. Environmental Protection Agency released a health assessment of diesel engine exhaust. The assessment concluded that long term inhalation exposure is likely to pose a lung cancer hazard, and other lung damage. Also, there is evidence that diesel exhaust inhalation exacerbates existing allergies, bronchitis, and asthma symptoms because of its significant levels of particulate matter. Studies also show that children riding in school buses are subject "self-pollution", which occurs when diesel exhaust enters the passenger cabin and becomes trapped and concentrated. Children are more susceptible to the particulate matter (and subsequent health risks) than healthy adults because children breathe faster, and their respiratory systems are not fully developed.

Economic Benefits: Under Pennsylvania's Act 178, the State will pay for the incremental cost of using biodiesel for fleets belonging to entities such as school districts, municipalities and non-profits. This means that fleets can use biodiesel at no added cost, regardless of the difference in fuel prices.

Biodiesel increases the lubricity of the fuel, which leads to longer engine life, protection against fuel injector failure, lower maintenance costs and less equipment downtime. Ultimately these equipment improvements have a very positive economic impact for school districts that use biodiesel.

What should I expect when my school bus switches to biodiesel?

You won't notice any changes in how your bus operates once you switch to biodiesel- you should experience similar horsepower, torque and mileage. You will notice significant reductions in soot and noise, as well as a less noxious exhaust smell. School bus passengers and drivers generally experience fewer headaches and asthmatic attacks, and school officials report few complaints about diesel fumes making staff and students feel ill.

St. Johns Public Schools in Michigan use biodiesel to power their 31 school buses and 10 diesel support vehicles. According to Wayne Hettler, the head mechanic, *"We have experienced very positive results with B20. The B20 not only solved our lubrication problem, but we have reduced costs in fuel pump injector repair. We now extend our oil services another 10 percent. Our buses don't have the exhaust soot on the back that has to be scrubbed off. The fleet average fuel mileage has increased from 8.1 to 8.8 miles per gallon. When all of these things are added up, we are seeing about \$7500 savings per year."*

The Medford School District in New Jersey began using B20 in 1997. According to Joe Biluck, Director of Operations and Technology, the fuel has performed well even in temperatures as low as eleven degrees below zero. *"Biodiesel offers the best option to increase our reliance on domestic, renewable fuels while producing significant results in terms of emission reduction. Biodiesel's primary attraction is its ease of integration coupled with the fact it is a technology that is not capital intensive and can be applied to older units as well as today's vehicles."*



Greater Philadelphia Clean Cities

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