

## COLD FLOW MANAGEMENT



All diesel fuel – including petroleum diesel and biodiesel – must be managed to ensure proper cold weather performance. Cloud Point and Cold Filter Plugging Point (CFPP) are commonly used to indicate cold temperature properties.

## WHAT IS CLOUD POINT?



The Cloud Point of a diesel fuel is the temperature below which wax forms, giving the fuel a cloudy appearance. This parameter is an important property of the fuel since the presence of solidified waxes can clog filters and negatively impact engine performance.



## DID YOU KNOW?

Biodiesel blends up to 20% are being used successfully throughout the nation. If properly managed, blends of ultra-low sulfur diesel and biodiesel of any feedstock can be used successfully in challenging winter climates.

## B5 CLOUD POINT



A fuel containing 5% biodiesel (or B5) typically has a cloud point similar to or the same as that of 100% No. 2 petroleum diesel.

## B20 CLOUD POINT



A fuel containing 20% biodiesel (or B20) can have a cloud point approximately 2°– 7° F higher than that of 100% No. 2 petroleum diesel.

## BIODIESEL COLD WEATHER MANAGEMENT



Like petroleum diesel, biodiesel blends can be enhanced for cold weather performance using field proven additives and proactive tank management determined by knowledge of climatic conditions. These steps will ensure optimum winter operability as benchmarked by CFPP testing, which is the universal measurement of diesel fuel operability.

## NYC USES B20 YEAR-ROUND

New York City requires city vehicles to use B20 biodiesel from April through November, and B5 from December through March. Biodiesel has performed so successfully that many agencies use B20 all year long. Even NYC snowplows run on B20 in the winter! In fact, NYC vehicles use more than 6 million gallons of B20 annually without any cold weather issues.



## WHAT IS **BIOHEAT** FUEL?

Bioheat® fuel is the economical, environmentally sustainable choice for millions of homeowners in the Northeast and Mid-Atlantic region that rely upon low-carbon liquid fuels to provide home comfort. Like biodiesel applications, Bioheat® fuel is being used at blends of B20–B50 and is managed for cold weather operability equally successfully. For more information about Bioheat® fuel, visit [www.mybioheat.com](http://www.mybioheat.com)

## B20 BIOHEAT® FUEL IS 100% WINTER COMPATIBLE

Field surveys from Bioheat® fuel dealers and industry leaders report Bioheat® fuel blends up to B20 perform as expected in heating systems, with no biodiesel-related technical challenges and no need for equipment modifications. Furthermore, according to that survey, more than 35,000 homes use B10-B40, and nearly 400 use B80-B100. Approximately 250 million gallons a year of B20 are now warming families while reducing GHG emissions and carbon intensity.



### ABOUT BIODIESEL AND BIOHEAT® FUEL



Made from plant-based oils, used cooking oils, and animal fats



Clean-burning



Can be used in any equipment without modification



Commercially available nationwide



Today's solution for heavy-duty trucking, emergency vehicles, bus fleets, and farm equipment

## SOURCES

U.S. Department of Energy, Alternative Fuels Data Center

U.S. Department of Energy Biodiesel Handling and Use Guide,  
November 2016

B20 to B100 Blends as Heating Fuels,  
Dr. Thomas A Butcher,  
Brookhaven National Laboratory,  
November, 2018

Presentation by Keith T. Kerman,  
NYC Chief Fleet Officer Deputy Commissioner,  
Department of Citywide Administrative Services  
Arsenal, Central Park,  
July 26, 2021

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