

REG Bio-Residual[™] Oil

A new sustainable solution for generating heat or power, or for use in other industrial applications.

As the nation's largest producer of biodiesel, REG offers a consistent supply of high-performing bio-residual oil for use as a clean-burning alternative to traditional fuel oils.

High Performance to Meet Your Specifications

REG Bio-Residual Oil, a co-product of the biodiesel refining process, offers exceptional BTU performance when burned for heat or power generation. Whether used as a straight replacement for fuel oil, sprayed onto a traditional fuel source or blended with conventional heating oils, REG Bio-Residual Oil provides up to 135,000 BTUs per gallon while reducing emissions. REG Bio-Residual Oil is an exceptional and renewable alternative to fuel oil, coal, natural gas and even other biomass fuel sources, providing many valuable benefits:

Better BTU performance

- ▶ REG Bio-Residual Oil provides up to 135,000 BTUs per gallon.
- ▶ Advanced production technology means REG Bio-Residual Oil contains minimal amounts of water or methanol.
- ▶ REG Bio-Residual Oil offers a higher BTU value than coal or wood-fiber material, with approximately 100–125% more energy per pound than wood chips or pellets.

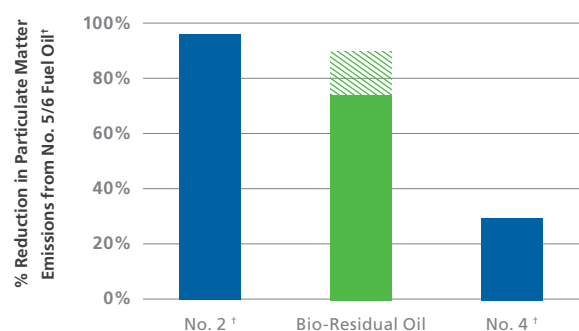
Cleaner burning

- ▶ REG Bio-Residual Oil burns cleanly and produces less particulate matter than other fuel sources.
- ▶ REG Bio-Residual Oil has the lowest carbon intensity of any commercially available liquid fuel.

Renewable

- ▶ REG Bio-Residual Oil is produced from recycled fats and oils such as used cooking oil, distillers corn oil, animal fat and other vegetable oils — renewable and plentiful resources. It is an affordable way to meet your company's sustainability goals.
- ▶ Fuel quality is guaranteed, regardless of feedstock.
- ▶ In certain areas of the country, REG Bio-Residual Oil is eligible for Renewable Energy Certificates (RECs) and RINs, depending on the usage.
- ▶ REG Bio-Residual Oil offers a significant reduction in greenhouse gas emissions compared to alternative fuel oils.

Particulate Matter Emission Reductions



*Adapted from the EPA AP-42 Compilation of Air Pollutant Emission Factors.

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Volume and Logistics to Meet Your Demands

REG Bio-Residual Oil is flexible and readily available. This high-viscosity product can be stored and handled like other residual fuels. If your operation is equipped to burn a heavy fuel oil, it requires no infrastructure changes or special storage needs. If you burn solid fuel, take advantage of enhanced BTU performance by applying REG Bio-Residual Oil to your fuel source.

Property	Unit	REG Bio-Residual Oil	No. 6 Fuel Oil
Gross Heating Value	BTU/lb	130,000-135,000	144,00-152,000
Ash	% wt	0.01-0.05	0.04-0.15
Sulfur	% wt	<0.05	0.5-3.5
Moisture	% wt	0.01-0.15	0.3-0.5
Viscosity @ 40C (mm ² /s)	mm ² /s	9-500	250-720
Viscosity @ 100C (mm ² /s)	mm ² /s	2.5-25	5-50
Carbon Residue	% wt	<1	<20
Vanadium	ppm	0	<450

More than 10 million gallons of annual production capacity

- ▶ REG Bio-Residual Oil can be used in a wide variety of markets, including power generation, district heating and industrial applications.
- ▶ Domestic and international transportation is available.



For more information, please contact:

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REG makes no claims as to the suitability for a particular purpose.
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