



Type 1 - Soy Based

ASTM International Specification

D6751: Standard Specification for biodiesel fuel

In 2002, ASTM International issued a standard specification for biodiesel. All World Energy products strictly meet finished quality requirements set forth in Table 1.

TABLE 1: Detailed Requirements for Biodiesel (B100)

Property	Test Method	Limits	Units
Flash point (closed cup)	D 93	130.0 min	°C
Water and sediment	D 2709	0.050 max	% volume
Kinematic viscosity, 40°C	D 445	1.9-6.0	mm ² /s
Sulfated ash	D 874	0.020 max	% mass
Sulfur	D 5453	0.05 max	% mass
Copper strip corrosion	D 130	No. 3 max	
Cetane number	D 613	47 min	
Cloud point	D 2500	Report to customer*	°C
Carbon residue	D 4530	0.050 max	% mass
Acid number	D 664	0.80 max	mg KOH/g
Free glycerin	D 6584	0.020	% mass
Total glycerin	D 6584	0.240	% mass
Phosphorus content	D 4951	0.001 max	% mass
Distillation temperature, atmospheric equiv. temp	D 1160	360 max	°C

*Cloud point varies depending on feedstock. Please contact World Energy for the exact specifications of your product.

Always purchase ASTM product.

World Energy only sells biodiesel meeting ASTM specifications; in fact, it is the only form of biodiesel legal for resale. Buyers should be aware, however, that a number of startups are likely to enter the biofuel market with products that may not hold to the specification. For commercial operations, bulk-produced product meeting ASTM standards is the only option.

Making biodiesel at home is something individuals do at their own risk for personal equipment, but homemade biodiesel generally does not meet the ASTM specification and may create operational hazards.

Check your source before making any purchase.

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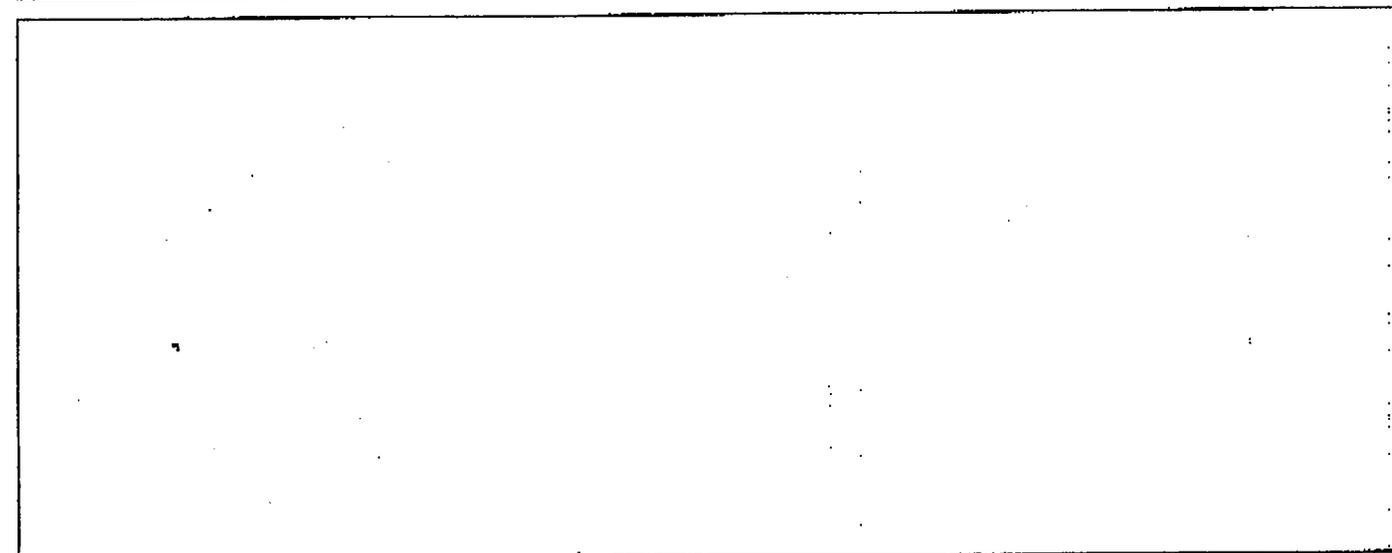
Materials Safety
Data Sheet

SECTION I IDENTITY Trade Name ENVIRODIESEL®, B100 Issue Date: 12/8/98

CHEMICAL IDENTITY Methyl Esters CAS Number 67762-38-3

SECTION II		PHYSICAL DATA	
Boiling Point	@760 mm Hg Over 400° F	Specific Gravity @25/25 C	(H2O = 1.0) 0.86
Vapor Pressure	72° F Less than 1 mm Hg	Percent Volatile by Volume (%)	Not known
Vapor Density	Not Known	Evaporation Rate	Not known
Solubility in Water	72° F Negligible		

SECTION III		FLAMMABILITY & EXPLOSIVENESS DATA	
Flash Point (Method)	>300° F (PMCC)	Explosive Limits	(Lower) (Upper) N/A N/A
Extinguishing Media	Use CO 2 or dry chemical for small fires. Use foam for large fires.		
Special Fire Fighting procedures	Wear self-contained breathing apparatus and protective clothing		
Unusual Fire and Explosive Hazards	Oily rags and other combustibles will start fires due to spontaneous combustion. Store oily rags and other combustibles only in approved containers.		



Data Supplied is for use only in connection with occupational safety and health.
The submission of the MSDS may be required by law but this is not an assertion that this substance is hazardous when used in accordance with proper safety practices and normal handling procedures. submission of the MSDS may be required by law but this is not an assertion that this substance is hazardous when used in accordance with proper safety practices and normal handling procedures.

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<u>SECTION V</u>		<u>REACTIVITY DATA</u>		<u>SE 1885</u>
Stability	Unstable	Stable		X
Incompatibility (Materials to Avoid)				
Reacts with strong base to produce methanol.				
Hazardous Decomposition Products				
Does not decompose up to 350° F				
Hazardous Polymerization	May occur.	Will not occur		X
<u>SECTION VI</u>		<u>SPILL OR LEAK PROCEDURES</u>		
Steps to be taken in case material is released or spilled.				
Neutralization not required. Soak up with absorbent material such as paper, rags, or sawdust. Dispose as any grease or oily material.				
Waste Disposal Method				
Dispose of according to Federal, State, and/or local requirements.				
<u>SECTION VII</u>		<u>PROTECTION INFORMATION</u>		
Respiratory Protection	A NIOSH/MSHA approved respirator should be used if a mist or vapor is generated.			
Ventilation	Local Exhaust	Mechanical (General)	Acceptable	
	Special			
	Other			
Eye Protection	Goggles	Protective Gloves - Nitrile		
Other Protective Equipment	None required.			
<u>SECTION VIII</u>		<u>PRECAUTIONS</u>		
HANDLING AND STORAGE	Can be stored in most common storage vessels including carbon steel, aluminum, fiberglass and stainless steel.			
LABELING	None required.			

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