

FUEL SECTION



**Midwest
Laboratories[®]**

CATALOG | 2021 EDITION



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FUEL





Fuel BIODIESEL

	Required Sample Size	Turnaround Time	Price
GLYCERIN PACKAGE	100mL	3 - 5 BD	\$350.00

Ash, Glycerol, Methanol, Moisture (Karl Fischer), MONG (material organic non glycerol), Specific Gravity, Weight (lbs/gal)



Fuel ETHANOL

BIOGAS	--	5 - 7 BD	\$60.00
Methane (tedlar bag)			

ROAD SILT	--	5 - 7 BD	\$25.00
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DENATURANT TESTING	1L	5 - 7 BD	\$325.00
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ASTM D4052 Specific Gravity

ASTM D5191 Vapor Pressure

ASTM D5580 Aromatics and Benzene

ASTM D5453 Sulfur

ASTM D6650 Olefins

ASTM D86

Distillation Curve to include: initial boiling point, 10% recovery, 20% recovery, 50% recovery, 90% recovery, and end point.

CALCULATED API DEGREES

VISUAL APPEARANCE

DENATURED ETHANOL D4806 PACKAGE	1L	5 - 7 BD	\$260.00
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ASTM D381 Gum (washed/unwashed)

ASTM D1688 Copper

ASTM D4052 Specific Gravity

ASTM D5453 Sulfur

ASTM D5501 Ethanol & Methanol by GC

ASTM D6423 pHe

ASTM D7319 Chloride & Sulfate by IC

ASTM D7795 Acidity

ASTM E1064 Water

HYDROMETER Proof

VISUAL APPEARANCE

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		Required Sample Size	Turnaround Time	Price
ETHANOL TESTING (D5798 – E85)		1L	5 – 7 BD	\$325.00
ASTM D381	Gum (washed/unwashed)	ASTM D6423	pHe	
ASTM D1688	Copper	ASTM D7328	Chloride & Sulfate by IC	
ASTM D4052	Specific Gravity	ASTM D7795	Acidity	
ASTM D5191	Vapor pressure	ASTM E1064	Water	
ASTM D5453	Sulfur	VISUAL APPEARANCE		
ASTM D5501	Ethanol & Methanol by GC			

ETHANOL TESTING CANADIAN PACKAGE		1L	5 – 7 BD	\$713.00
ASTM D381	Gum (washed)	ASTM D7319	Chloride & Sulfate by IC	
ASTM D1125	Conductance	ASTM D7795	Acidity	
ASTM D1688	Copper	ASTM E1064	Moisture	
ASTM D3231	Phosphorus	CAN/CGSB-3.0 NO. 14.3	Ethanol, Methanol & Total Higher Alcohols	
ASTM D4052	Specific Gravity	CAN/CGSB-3.0 NO. 14.3	Benzene & Total Aromatics	
ASTM D5453	Sulfur	NACE TM-0172	Iron Corrosion, after blending	
ASTM D6423	pHe			

ETHANOL TESTING EUROPEAN PACKAGE (EN15376)		1L	5 – 7 BD	\$445.00
EN 15486	Sulfur	EN 15691	Involatile Material	
EN 15487	Phosphorus	EN 15721	Methanol	
EN 15488	Copper	EN 15721	Ethanol & Higher Alcohols	
EN 15489	Water	EN 15721	Volatile Impurities	
EN 15491	Acidity	EN 15769	Visual Appearance	
EN 15492	Sulfate	EN 15938	Conductance	
EN 15492	Chloride			

	<i>Required Sample Size</i>	<i>Turnaround Time</i>	<i>Price</i>
DENATURANT INDIVIDUAL COMPONENTS			
ASTM D86 Distillation Curve to include: initial boiling point 10% recovery, 20% recovery, 50% recovery, 90% recovery, and end point.	200ml	5 - 7 BD	\$90.00
ASTM D4052 Specific Gravity	40ml	5 - 7 BD	\$35.00
ASTM D5191 Vapor Pressure	1L	5 - 7 BD	\$65.00
ASTM D5453 Sulfur	40ml	5 - 7 BD	\$60.00
ASTM D5580 Aromatics	50ml	5 - 7 BD	\$150.00
ASTM D6650 Olefins	40ml	5 - 7 BD	\$150.00
NACE TM-0172 Iron Corrosion	500ml	5 - 7 BD	\$90.00

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	Required Sample Size	Turnaround Time	Price
ETHANOL INDIVIDUAL COMPONENTS			
ASTM D156 Saybolt Color	300mL	5 - 7 BD	\$45.00
ASTM D381 Gum (washed/unwashed)	400mL	5 - 7 BD	\$35.00
ASTM D1125 Conductance	200mL	5 - 7 BD	\$20.00
ASTM D1613 Acidity	400mL	5 - 7 BD	\$55.00
ASTM D1688 Copper	40mL	5 - 7 BD	\$60.00
ASTM D1722 Water Miscibility	100mL	5 - 7 BD	\$15.00
ASTM D3231 Phosphorus	200mL	5 - 7 BD	\$27.00
ASTM D4052 Specific Gravity	30mL	5 - 7 BD	\$35.00
ASTM D5191 Vapor Pressure	800mL	5 - 7 BD	\$65.00
ASTM D5453 Sulfur	30mL	5 - 7 BD	\$60.00
ASTM D5501 Ethanol & Methanol by GC	100mL	5 - 7 BD	\$150.00
ASTM D6423 pHe	250mL	5 - 7 BD	\$15.00
ASTM D7319 Chloride & Existent Sulfate by IC	40mL	5 - 7 BD	\$35.00
ASTM D7319 Potential Sulfate	80mL	5 - 7 BD	\$40.00
NACE TM-0172 Iron Corrosion	750mL	5 - 7 BD	\$90.00
ASTM D7667 Silver Corrosion	120mL	5 - 7 BD	\$60.00
ASTM D7795 Acidity	500mL	5 - 7 BD	\$55.00
ASTM E1064 Water	40mL	5 - 7 BD	\$35.00
CAN/CGSB-3.0-14.3 Canadian Hydrocarbons	100mL	5 - 7 BD	\$325.00
EN 15487 Phosphorus	200mL	5 - 7 BD	\$21.50
HYDROMETER Proof	400mL	5 - 7 BD	\$35.00



Fuel ANIMAL FEEDS

	Required Sample Size	Turnaround Time	Price
AMINO ACID PROFILE PACKAGE	50g	7 - 10 BD	\$300.00
<i>Requires Protein.</i> Aspartic Acid, Valine, Histidine, Threonine, Methionine, Lysine, Serine, Isoleucine, Agrinine, Glutamic Acid, Leucine, Proline, Glycine, Tyrosine, Cystine, Alanine, Phenylalanine, Tryptophan			
ANTIBIOTIC RESIDUES (LC/MS/MS)			
For formulations, we must have expected values.			
Chlortetracycline residue	Doxycycline residue	Erythromycin residue,	
Oxytetracycline residue	Penicillin residue	Streptomycin residue	
Tetracycline residue	Tylosin residue	Virginiamycin residue	
Any one (1) of the above	100g	7 - 10 BD	\$150.00
Any two (2) of the above	100g per test	7 - 10 BD	\$220.00
Any three (3) of the above	100g per test	7 - 10 BD	\$310.00
Full Screen (as many as are available)	100g per test	7 - 10 BD	\$550.00
CORN PACKAGE	250g	3 - 5 BD	\$65.00
Moisture, Crude Protein, Crude Fat, Total Starch			
CORN PACKAGE WITHOUT STARCH	100g	3 - 5 BD	\$29.00
Moisture, Crude Protein, Crude Fat			
CORN OIL			
FFA	25mL	3 - 5 BD	\$30.00
KF Moisture	25mL	3 - 5 BD	\$35.00
MIU	25mL	3 - 5 BD	\$55.00
Phosphorus	25mL	3 - 5 BD	\$75.00
Sulfur	25mL	3 - 5 BD	\$60.00
CORN QA/QC PACKAGE	50g	3 - 5 BD	\$53.00
Moisture, Crude Protein, Total Starch			
CORN QA/QC PACKAGE WITHOUT STARCH	50g	3 - 5 BD	\$17.00
Moisture, Crude Protein			

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	Required Sample Size	Turnaround Time	Price
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DRIED DISTILLERS GRAIN WITH SOLUBLES (DDGS) PACKAGE

250g	3 - 5 BD	\$64.00
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Moisture, Crude Protein, Crude Fat, Acid Detergent Fiber (ADF), Crude Fiber, Neutral Detergent Fiber (NDF), Ash, Color (L* Value), Total Digestible Nutrients (TDN), Net Energies (NEL, NEM, NEG), Digestible Energy, Metabolizable Energy, Sulfur, Phosphorus, Potassium, Magnesium, Manganese, Copper, Calcium, Sodium, Iron, Zinc

MASH PACKAGE

150g	5 - 7 BD	\$100.00
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Conductivity, Zinc, Potassium, pH, Copper, Phosphorus, Ammonical-N, Manganese, Sulfur, Nitrogen, Sodium, Sulfate, TKN, Calcium, Sulfite

MYCOTOXIN ANALYSIS BY LC/MS/MS

Aflatoxin (B1, B2, G1, G2)	100g	5 - 7 BD	\$75.00
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Aflatoxin (M1)	100g	5 - 7 BD	\$75.00
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DON (Vomitoxin)	100g	5 - 7 BD	\$75.00
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Fumonisin (B1, B2, B3)	100g	5 - 7 BD	\$75.00
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Ochratoxin A	100g	5 - 7 BD	\$75.00
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T2 Toxin	100g	5 - 7 BD	\$75.00
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Zearalenone	100g	5 - 7 BD	\$75.00
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Full Screen (except M1)	100g	5 - 7 BD	\$260.00
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Patulin (not included in Full Screen)	100g	5 - 7 BD	\$150.00
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STARCH

10g	3 - 5 BD	\$36.00
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SYRUP PACKAGE

250g	3 - 5 BD	\$52.00
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Moisture, Crude Protein, Acid Detergent Fiber (ADF), Ash, Total Digestible Nutrients (TDN), Net Energies (NEL, NEM, NEG), Digestible Energy, Metabolizable Energy, Acid Hydrolysis Fat, Sulfur, Phosphorus, Potassium, Magnesium, Manganese, Calcium, Sodium, Iron, Zinc

WET DISTILLERS GRAIN WITH SOLUBLES (WDGS) PACKAGE

250g	3 - 5 BD	\$64.00
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Moisture, Crude Protein, Crude Fat, Acid Detergent Fiber (ADF), Crude Fiber, Neutral Detergent Fiber (NDF), Ash, Total Digestible Nutrients (TDN), Net Energies (NEL, NEM, NEG), Digestible Energy, Metabolizable Energy, Sulfur, Phosphorus, Potassium, Magnesium, Manganese, Copper, Calcium, Sodium, Iron, Zinc



Fuel

PETROLEUM CONTAMINATION

	Required Sample Size	Turnaround Time	Price
FUEL FINGERPRINT	150mL	5 - 7 BD	\$90.00
OIL PACKAGES			
Fuel Oil – Sulfur, BTU, Low & High Heating Value, Specific Gravity	250mL	5 - 7 BD	\$140.00
New Oil – BTU, Specific Gravity, Sulfur, Moisture	250mL	5 - 7 BD	\$175.00
Used Oil – Total Halogens, Arsenic, Cadmium, Chromium, Flash Point, Lead	500mL	5 - 7 BD	\$250.00
SULFUR TOTAL IN FUEL (ASTM D5453)	25mL	5 - 7 BD	\$60.00
UNDERGROUND STORAGE TANKS AND SURFACE SPILLS			
OA-1 (BTEX, Hexane, MTBE and TPH for gasoline)	Water: (3) 40mL Vials Soil: 8oz. jar	5 - 7 BD	\$75.00
OA-2 (as gasoline, diesel, waste oil)	Water: 3L Soil: 8oz. jar	5 - 7 BD	\$85.00
Gasoline-range Organics (GRO)	Water: (3) 40mL Vials Soil: 8oz. jar	5 - 7 BD	\$85.00
Diesel-range Organics (DRO)	Water: 3L Soil: 8oz. jar	5 - 7 BD	\$110.00
WASTE OIL/PETROLEUM			
BTUs	100g	5 - 7 BD	\$40.00
Flash Point (Closed Cup)	200mL	5 - 7 BD	\$90.00
Total Halogens (as Chlorine)	250mL	5 - 7 BD	\$110.00
INDIVIDUAL ANALYSIS			
AOM/OSI (Oxidation Stability Index)	100g	3 - 5 BD	\$85.00
British Thermal Units (BTU)	100g	2 - 3 BD	\$45.00
Moisture (Karl Fischer)	50mL	5 - 7 BD	\$35.00
API Specific Gravity	100mL	5 - 7 BD	\$35.00
Specific Gravity	100mL	5 - 7 BD	\$35.00
Sulfur	25mL	5 - 7 BD	\$60.00
Flashpoint	200mL	5 - 7 BD	\$90.00

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