

ASTM Methods

ASTM Method D4059-96 (PCB Standards in Oil)

ASTM Method D4059-96 is used for determining PCB concentrations in various types of transformer oil, using GC/ECD detection. The analyst must dilute transformer oil samples in a solvent prior to injection. The oil in the sample has been shown to quench the ECD. Calibration mixtures of PCBs in transformer oil must be prepared and diluted identically to eliminate the detector quenching bias resulting when samples are analyzed.

We prepare these solutions in a mineral oil-based transformer oil (Exxon® Univolt® N-61), which has been tested to ensure it is PCB-free.

PCB-Free Transformer Oil

Neat, 5mL	cat. # 32424 (ea.)
Neat, 50mL	cat. # 32425 (ea.)

No data pack available.

Aroclor Standards

Volume is 1mL/ampul.

Compound	Solvent	Conc.	cat.# (ea.)	price
Aroclor 1016	TO	50mg/kg	32075	
Aroclor 1016	TO	500mg/kg	32076	
Aroclor 1221	TO	50mg/kg	32077	
Aroclor 1221	TO	500mg/kg	32078	
Aroclor 1232	TO	50mg/kg	32079	
Aroclor 1232	TO	500mg/kg	32080	
Aroclor 1242	TO	50mg/kg	32081	
Aroclor 1242	TO	500mg/kg	32082	
Aroclor 1248	TO	50mg/kg	32083	
Aroclor 1248	TO	500mg/kg	32084	
Aroclor 1254	TO	50mg/kg	32085	
Aroclor 1254	TO	500mg/kg	32086	
Aroclor 1260	TO	50mg/kg	32087	
Aroclor 1260	TO	500mg/kg	32088	

TO = transformer oil (PCB-free)

ASTM Method D6352-98 (Polywax® Standards)

These high molecular weight hydrocarbon waxes are useful for simulated distillation and other high-temperature GC work.

Volume is 1mL/ampul.

Compound	qty.	cat.# (ea.)	price
Polywax 500	1g	36224	
Polywax 655	1g	36225	
Polywax 850	1g	36226	
Polywax 1000	1g	36227	

No data pack available.

ASTM Method D6584-00 and EN14105 (Biodiesel)

Determining Free and Total Glycerin in B100 Biodiesel Methyl Esters by GC

In the manufacture of biodiesel fuel, triglycerides are split into their monoalkyl ester components via transesterification. The fatty acid monoalkyl esters can be used as fuel in diesel engines. Amounts of free glycerin and total glycerin indicate the quality of the conversion of the oil or fat to monoalkyl esters. D6584-00 is a test method for quantitative determination of free glycerin, total glycerin, and mono-, di-, and triglycerides in biodiesel fuel methyl esters by GC, after silylation of the sample with N-methyl-N-(trimethylsilyl) trifluoroacetamide (MSTFA).

(s)-(-)-1,2,4-Butanetriol

1,000µg/mL in pyridine, 1mL/ampul

cat. # 33024 (ea.)

1,000µg/mL in pyridine, 5mL/ampul

cat. # 33032 (ea.)

ASTM Method D6584-00 and EN14105 (Biodiesel) cont'd

Diolein (1,3-di[*cis*-octadecenoyl]glycerol)

5,000µg/mL in pyridine, 1mL/ampul

cat. # 33022 (ea.)

Glycerin

500µg/mL in pyridine, 1mL/ampul

cat. # 33020 (ea.)

Monolein (1-mono[*cis*-9-octadecenoyl]-rac-glycerol)

5,000µg/mL in pyridine, 1mL/ampul

cat. # 33021 (ea.)

Monopalmitin

5,000µg/mL in pyridine, 1mL/ampul

cat. # 33026 (ea.)

Tricaprin

8,000µg/mL in pyridine, 1mL/ampul

cat. # 33025 (ea.)

8,000µg/mL in pyridine, 5mL/ampul

cat. # 33033 (ea.)

Triolein

5,000µg/mL in pyridine, 1mL/ampul

cat. # 33023 (ea.)

Diesel/Biodiesel 80:20 Blend Standard

The biodiesel component is methyl soyate.

5,000µg/mL in methylene chloride, 1mL/ampul

cat. # 31880 (ea.)

ASTM Method D6730-01 (Determination of Individual Components in Spark Ignition Engine Fuels)

ASTM method D6730-01 is specifically designed for the determination of the individual hydrocarbons present in spark ignition fuels, as well as fuel blends containing oxygenates such as methyl *tert*-butyl ether, ethyl *tert*-butyl ether, *tert*-butanol, ethanol, etc.

Oxy Set-Up Blend (30 components)

Gravimetrically prepared and NIST-traceable.

benzene	1.00%	1-methylcyclopentene	0.50%
<i>tert</i> -butanol	0.50%	1-methyl-2-ethylbenzene	0.50%
cyclohexane	28.9%	1-methylnaphthalene	0.25%
<i>n</i> -decane	1.00%	5-methylnonane	0.20%
2,3-dimethylbutane	0.50%	naphthalene	0.50%
<i>trans</i> -1,2-dimethylcyclopentane	0.50%	<i>n</i> -nonane	2.00%
2,3-dimethylheptane	0.20%	<i>n</i> -octane	2.00%
dodecane	0.25%	<i>n</i> -pentane	2.00%
ethanol	8.00%	1,2,3,5-tetramethylbenzene	0.25%
ethylbenzene	25.0%	toluene	7.00%
3-ethylpentane	0.20%	tridecane	0.25%
<i>n</i> -heptane	2.00%	2,2,3-trimethylpentane	0.52%
<i>n</i> -hexane	2.00%	2,3,3-trimethylpentane	0.50%
2-methyl-2-butene	2.50%	undecane	0.50%
methyl <i>tert</i> -butyl ether	10.0%	<i>p</i> -xylene	1.00%

2mL prescored ampul

cat. # 33034 (ea.)