

Massachusetts

**MA VPH Standard with Surrogate Rev. 1.1 (July 2004)**

(16 components)

benzene	<i>n</i> -nonane (C9)
<i>n</i> -butylcyclohexane	<i>n</i> -pentane (C5)
<i>n</i> -decane (C10)	toluene
2,5-dibromotoluene (SS)	1,2,4-trimethylbenzene
ethylbenzene	2,2,4-trimethylpentane (isooctane)
2-methylpentane	<i>m</i> -xylene
methyl <i>tert</i> -butyl ether (MTBE)	<i>o</i> -xylene
naphthalene	<i>p</i> -xylene

10,000µg/mL in P&T methanol, 1mL/ampul  
cat. # 30604 (ea.)

**MA VPH Matrix Spike Mix with Surrogate Rev. 1.1 (July 2004)**

(16 components)

benzene	<i>n</i> -nonane (C9)
<i>n</i> -butylcyclohexane	<i>n</i> -pentane (C5)
<i>n</i> -decane (C10)	toluene
2,5-dibromotoluene (SS)	1,2,4-trimethylbenzene
ethylbenzene	2,2,4-trimethylpentane (isooctane)
2-methylpentane	<i>m</i> -xylene
methyl <i>tert</i> -butyl ether (MTBE)	<i>o</i> -xylene
naphthalene	<i>p</i> -xylene

50µg/mL in P&T methanol, 1mL/ampul  
cat. # 30605 (ea.)

**MA Volatile Petroleum Hydrocarbon (VPH) Standard**

(13 components)

<i>n</i> -pentane (C5)	1,000µg/mL	naphthalene	1,000
<i>n</i> -nonane (C9)	1,000	toluene	1,500
benzene	500	1,2,4-trimethylbenzene	1,000
ethylbenzene	500	<i>m</i> -xylene	1,000
isooctane	1,500	<i>o</i> -xylene	1,000
2-methylpentane	1,500	<i>p</i> -xylene	1,000
methyl <i>tert</i> -butyl ether (MTBE)	1,500		

In P&T methanol, 1mL/ampul  
cat. # 30434 (ea.)

**MA VPH Standard with Surrogate (14 components)**

<i>n</i> -pentane (C5)	1,000µg/mL	methyl <i>tert</i> -butyl ether (MTBE)	1,500
<i>n</i> -nonane (C9)	1,000	naphthalene	1,000
benzene	500	toluene	1,500
2,5-dibromotoluene (SS)	1,000	1,2,4-trimethylbenzene	1,000
ethylbenzene	500	<i>m</i> -xylene	1,000
isooctane	1,500	<i>o</i> -xylene	1,000
2-methylpentane	1,500	<i>p</i> -xylene	1,000

In P&T methanol, 1mL/ampul  
cat. # 30452 (ea.)

**MA VPH Matrix Spike Mix with Surrogate (14 components)**

<i>n</i> -pentane (C5)	methyl <i>tert</i> -butyl ether (MTBE)
<i>n</i> -nonane (C9)	naphthalene
benzene	toluene
2,5-dibromotoluene (SS)	1,2,4-trimethylbenzene
ethylbenzene	<i>m</i> -xylene
isooctane	<i>o</i> -xylene
2-methylpentane	<i>p</i> -xylene

2,500µg/mL each in P&T methanol, 1mL/ampul  
cat. # 30454 (ea.)

**MA VPH Surrogate Standard**

2,5-dibromotoluene	
1,000µg/mL in P&T methanol, 1mL/ampul	cat. # 30435 (ea.)
10,000µg/mL in P&T methanol, 1mL/ampul	cat. # 30453 (ea.)

**Massachusetts APH Mix (26 components)**

benzene	<i>p</i> -isopropyltoluene
1,3-butadiene	methyl <i>tert</i> -butyl ether
butylcyclohexane	1-methyl-3-ethylbenzene
cyclohexane	naphthalene
<i>n</i> -decane	<i>n</i> -nonane
2,3-dimethylheptane	<i>n</i> -octane
2,3-dimethylpentane	toluene
<i>n</i> -dodecane	1,2,3-trimethylbenzene
ethylbenzene	1,3,5-trimethylbenzene
<i>n</i> -heptane	<i>n</i> -undecane
<i>n</i> -hexane	<i>o</i> -xylene
isopentane	<i>m/p</i> -xylene (combined)
isopropylbenzene	

**Cylinder Construction:** aluminum  
**Cylinder Fitting:** CGA-180 outlet



1ppm in nitrogen, 104 liters @ 1,800psi  
cat. # 34540 (ea.)  
140-450ppb in nitrogen, 90 liters @ 1,500psig (Pi-marked Cylinder)  
cat. # 34540-PI (ea.)

Requires a high-purity VOC single-stage regulator. See page 433.  
No data pack available.  
Quantity discounts not available.

**MA EPH Aromatic Hydrocarbon Standard (17 components)**

acenaphthene	dibenzo(a,h)anthracene
acenaphthylene	fluoranthene
anthracene	fluorene
benzo(a)anthracene	indeno(1,2,3-cd)pyrene
benzo(a)pyrene	2-methylnaphthalene
benzo(b)fluoranthene	naphthalene
benzo(k)fluoranthene	phenanthrene
benzo(ghi)perylene	pyrene
chrysene	

1,000µg/mL each in methylene chloride, 1mL/ampul  
cat. # 31458 (ea.)

**MA EPH Aliphatic Hydrocarbon Standard (14 components)**

<i>n</i> -nonane (C9)	<i>n</i> -eicosane (C20)
<i>n</i> -decane (C10)	<i>n</i> -docosane (C22)
<i>n</i> -dodecane (C12)	<i>n</i> -tetracosane (C24)
<i>n</i> -tetradecane (C14)	<i>n</i> -hexacosane (C26)
<i>n</i> -hexadecane (C16)	<i>n</i> -octacosane (C28)
<i>n</i> -octadecane (C18)	<i>n</i> -triacontane (C30)
<i>n</i> -nonadecane (C19)	<i>n</i> -hexatriacontane (C36)

1,000µg/mL each in hexane, 1mL/ampul  
cat. # 31459 (ea.)

**MA EPH Matrix Spike Mix (10 components)**

<i>n</i> -nonane (C9)	acenaphthene
<i>n</i> -tetradecane (C14)	anthracene
<i>n</i> -nonadecane (C19)	chrysene
<i>n</i> -eicosane (C20)	naphthalene
<i>n</i> -octacosane (C28)	pyrene

250µg/mL each in acetone, 1mL/ampul  
cat. # 31460 (ea.)