

New Analytical Reference Materials in 2004

by Katia May, Ph.D., Senior R&D Chemist

- Environmental mixes: volatiles - semivolatiles - pesticides/herbicides - petroleum products.
- Miscellaneous mixes: deactivation reagent - drinking water odor standard.
- Custom mixes and packaging always available.

Restek's chemists worked hard during 2004 to introduce many new reference mixes.

For your convenience, we've listed them all here, because they are not included in our 2004 general catalog. They also are available on our website. Look for many more new Restek mixes in 2005.

Volatile Organics

Drinking Water VOA MegaMix™, 524.2

Rev. 4.1 (73 components)

Each	5-pk.	10-pk.
2,000µg/mL each in P&T methanol, 1mL/ampul		
30601	30601-510	—
w/data pack		
30601-500	30601-520	30701

Ketones Mix, 524.2 Rev. 4.1

acetone 2-hexanone
2-butanone (MEK) 4-methyl-2-pentanone (MIBK)
1,1-dichloro-2-propanone

Each	5-pk.	10-pk.
5,000µg/mL each in 90% P&T methanol:10% water, 1mL/ampul		
30602	30602-510	—
w/data pack		
30602-500	30602-520	30702

524 Internal Standard/Surrogate Mix

Each	5-pk.	10-pk.
2,000µg/mL each in P&T methanol, 1mL/ampul		
30201	30201-510	—
w/data pack		
30201-500	30201-520	30301

524.2 Surrogate Standard

Each	5-pk.	10-pk.
2,000µg/mL in P&T methanol, 1mL/ampul		
30607	30607-510	—
w/data pack		
30607-500	30607-520	30707

Volatiles MegaMix™ with Gases

(60 components)

Each	5-pk.	10-pk.
200µg/mL each in P&T methanol, 1mL/ampul		
30603	30603-510	—
w/data pack		
30603-500	30603-520	30703

Formaldehyde-DNPH Mix

Each	5-pk.
500µg/mL in acetonitrile, 1mL/ampul	
31837	31837-510

free literature

Optimizing the Analysis of Volatile Organic Compounds

72-page guide to analyzing volatile compounds in environmental samples, with many example chromatograms. An excellent resource for the new or experienced analyst. Request lit. cat.# 59887A from your Restek representative.

Semivolatile Organics

8270 MegaMix™ (76 components)

Each	5-pk.	10-pk.
1,000µg/mL each (except where noted) in methylene chloride, 1mL/ampul		
31850	31850-510	—
w/data pack		
31850-500	31850-520	31950

Each	5-pk.	10-pk.
200µg/mL each in methylene chloride, 5mL/ampul**		
31851	31851-510	—
w/data pack		
31851-500	31851-520	31951

*3-methylphenol and 4-methylphenol concentration is 500µg/mL.
†1,2-diphenylhydrazine (8270-listed analyte) decomposes to azobenzene (mix component).
‡N-nitrosodiphenylamine (8270-listed analyte) decomposes to diphenylamine (mix component).

8270 Matrix Spike Mix (76 components)

same list as 8270 MegaMix™ above

Each	5-pk.	10-pk.
200µg/mL each in methylene chloride, 5mL/ampul**		
31851	31851-510	—
w/data pack		
31851-500	31851-520	31951

**3-methylphenol and 4-methylphenol concentration is 100µg/mL.

1,4-Dioxane

Each	5-pk.	10-pk.
2,000µg/mL in methylene chloride, 1mL/ampul		
31853	31853-510	—
w/data pack		
31853-500	31853-520	31953

8270 Benzidines Mix

Each	5-pk.	10-pk.
2,000µg/mL in methylene chloride, 1mL/ampul		
31852	31852-510	—
w/data pack		
31852-500	31852-520	31952

PAH Mixes

EPA Method 8310 Quality Control Check*

(18 components)

acenaphthene	100µg/mL	dibenzo(a,h)anthracene	10
acenaphthylene	100	fluoranthene	10
anthracene	100	fluorene	100
benzo(a)anthracene	10	indeno(1,2,3-cd)pyrene	10
benzo(a)pyrene	10	1-methylnaphthalene	100
benzo(b)fluoranthene	10	2-methylnaphthalene	100
benzo(g)h)perylene	10	naphthalene	100
benzo(k)fluoranthene	5	phenanthrene	100
chrysene	10	pyrene	10

Each	5-pk.	10-pk.
In acetonitrile, 1mL/ampul		
31843	31843-510	—
	w/data pack	
31843-500	31843-520	31943

Sonicate before using.

EPA Method 8310 PAH Mixture*

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

Each	5-pk.	10-pk.
500µg/mL each in acetonitrile, 1mL/ampul		
31841	31841-510	—
	w/data pack	
31841-500	31841-520	31941

Sonicate before using.

EPA Method 8310 Surrogate Standard

decafluorobiphenyl

Each	5-pk.	10-pk.
1,000µg/mL in acetonitrile, 1mL/ampul		
31842	31842-510	—
	w/data pack	
31842-500	31842-520	31942

Phthalate and Adipate Mixes

506 Laboratory Performance Check Mix

benzyl butyl phthalate	250µg/mL	di-n-octyl phthalate	650
bis(2-ethylhexyl)adipate	1200	diethylphthalate	100
bis(2-ethylhexyl)phthalate	250	dimethylphthalate	100
di-n-butylphthalate	100		

Each	5-pk.	10-pk.
In P&T methanol, 1mL/ampul		
31844	31844-510	—
	w/data pack	
31844-500	31844-520	31944

506 Calibration Mix

benzyl butyl phthalate	di-n-octyl phthalate
bis(2-ethylhexyl)adipate	diethylphthalate
bis(2-ethylhexyl)phthalate	dimethylphthalate
di-n-butylphthalate	

Each	5-pk.	10-pk.
1,000µg/mL in isoctane, 1mL/ampul		
31845	31845-510	—
	w/data pack	
31845-500	31845-520	31945



Why choose Restek reference mixes?

- Carefully formulated for dependability and long shelf life.
- Convenient, economical one-stop shopping: columns, supplies, reference mixes.
- Plus 1[™] service, always.

Pesticide and Herbicide Mixes

Phenylurea Pesticide Mixture

diflufenzuron	propanil
diuron	siduron
fluometuron	tebuthiuron
linuron	thidiazuron

Each	5-pk.	10-pk.
200µg/mL each in acetonitrile:acetone, 1mL/ampul		
32434	32434-510	—
	w/data pack	
32434-500	32434-520	32534

Phenylurea Surrogate Mixture

carbazole	monuron
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Each	5-pk.	10-pk.
500µg/mL each in methanol:acetonitrile, 1mL/ampul		
32433	32433-510	—
	w/data pack	
32433-500	32433-520	32533

531.2 Carbamate Pesticide Calibration Mixture

aldicarb	methiocarb
aldicarb sulfone	methomyl
aldicarb sulfoxide	1-naphthol
carbaryl (sevin)	oxamyl
carbofuran	propoxur (baygon)
3-hydroxycarbofuran	

Each	5-pk.	10-pk.
100µg/mL in acetonitrile, 1mL/ampul		
32435	32435-510	—
	w/data pack	
32435-500	32435-520	32535

Paraquat & Diquat Calibration Mix

diquat dibromide	paraquat dichloride
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Each
1,000µg/mL each in water, 1mL/ampul
32437
w/data pack
32437-500

Ultra Quat Reagent Solution

Each	10-pk.
In water, 20mL/ampul	
32441	32541

Petroleum Reference Standards

MA VPH Standard with Surrogate (Revised)

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

Each	5-pk.	10-pk.
10,000µg/mL in P&T methanol, 1mL/ampul		
30604	30604-510	—
	w/data pack	
30604-500	30604-520	30704

MA VPH Matrix Spike Mix with Surrogate (Revised)

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

Each	5-pk.	10-pk.
50µg/mL in P&T methanol, 1mL/ampul		
30605	30605-510	—
	w/data pack	
30605-500	30605-520	30705

Hydraulic Oil Standard

Each	5-pk.	10-pk.
50,000µg/mL in methylene chloride, 1mL/ampul		
31839	31839-510	—
	w/data pack	
31839-500	31839-520	31939

Creosote Oil Standard

Each	5-pk.	10-pk.
50,000µg/mL in methylene chloride, 1mL/ampul		
31838	31838-510	—
	w/data pack	
31838-500	31838-520	31938

Other Mixes

Dimethyldichlorosilane (DMDCS)

Each	5-pk.
Neat, 20mL/ampul	
31840	31840-510

Drinking Water Odor Standard

(+/-)-geosmin	2-methylisoborneol
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Each	5-pk.
100µg/mL in P&T methanol, 1mL/ampul	
30608	30608-510

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