

New Reference Materials for Environmental Analyses

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US EPA Method 8270 Mixes in 100% Methylene Chloride

- Better peak shape for early eluting semivolatiles, compared to methylene chloride/benzene solvent.
- Methanol-free methylene chloride enhances stability.
- Calibration mix and matrix spike mix.

Most complex mixes for US EPA Method 8270 are prepared in combinations of methylene chloride/benzene solvent. The primary reason for using benzene, a high boiling solvent, is the belief that polyaromatic hydrocarbons are not readily soluble in methylene chloride. Benzene, however, can contribute to poor peak shape and low responses for early eluting compounds such as pyridine, N-nitrosomethylamine, N-nitrosomethylethylamine, 1,4-dioxane, and 2-picoline. Restek chemists have studied the solubility of polyaromatic hydrocarbons and determined that our unique method of preparing our Method 8270 MegaMix™ calibration mix (cat.# 31850) allows us to exclude benzene as a solvent.

US EPA Method 524 Surrogates Standard

- Separate mixes for surrogates and internal standard.
- Fortification solution combines surrogates and internal standard.
- Calibration mixes and all other quality control mixes also available.

US EPA Method 524 requires a surrogates standard, an internal standard, and the surrogates and internal standard combined in a fortification solution. We have offered the fortification solution (cat.# 30201) and the internal standard (cat.# 30030); we now offer the surrogates mix, described here. Use the new mix to monitor method performance by combining it with the sample before extraction. Together with Drinking Water VOA MegaMix™ 524.2 Rev. 4.2 calibration mix (cat.# 30601, see page 11), Ketones Mix 524.2 Rev. 4.2 (cat.# 30602, see

Methylene chloride alone is an effective solvent for these analytes; methanol-free methylene chloride enhances the stability of the product. Our new 8270 MegaMix™ in methylene chloride is a direct replacement for the older mix, but allows better chromatography.

Similarly, we offer new 8270 Matrix Spike Mix (cat.# 31851), 8270 Benzidines Mix (cat.# 31852), and 1,4-Dioxane (cat.# 31853) in 100% methylene chloride. Equivalents of these three mixes are available in methanol/methylene chloride/benzene (cat.# 31687) or methanol (cat.# 31688, cat.# 30287), respectively.

page 11), and additional calibration and quality control mixes listed in our catalog, the new mix completes our set of reference materials for Method 524.

524.2 Surrogate Standard

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

Drinking Water Odor Standard

- New reference mix of the two most common odor-causing compounds.
- Convenient concentration for purge and trap analysis: 100µg/mL in methanol.

Unpleasant odor in drinking water is associated with the growth and decay of microorganisms. Blue-green algae, green algae, diatoms, and flagellates are the four groups responsible for most common odor problems. Geosmin, produced by blue-green algae, has an earthy, musty smell. Actinomyces, mold-like bacteria also present in surface water, produce another common odor compound: 2-methylisoborneol.

The threshold value for these compounds is low (10ppt) and purge and trap analyses usually are used to quantify them. To help monitor the quality of drinking water, Restek's researchers have developed this convenient new reference mix.

Drinking Water Odor Standard

Each	5-pk.
100µg/mL each in P&T methanol, 1mL/ampul	
30608	30608-510

Searching for the Perfect Solution?

Let Restek create the perfect reference mixture—to your exact specifications. Contact the Technical Service Team, or your Restek representative, or visit us online at www.restek.com/solutions

new!

new!

new!

8270 MegaMix™ (76 components)

acenaphthene	2,4-dinitrophenol
acenaphthylene	2,4-dinitrotoluene
aniline	2,6-dinitrotoluene
anthracene	di- <i>n</i> -butyl phthalate
azobenzene ¹	di- <i>n</i> -octyl phthalate
benzo(a)anthracene	diphenylamine ²
benzo(a)pyrene	fluorene
benzo(b)fluoranthene	fluoranthene
benzo(g)hijperylene	hexachlorobenzene
benzo(k)fluoranthene	hexachlorobutadiene
benzyl alcohol	hexachlorocyclopentadiene
benzyl butyl phthalate	hexachloroethane
bis 2-ethylhexyl adipate	indeno(1,2,3- <i>cd</i>)pyrene
bis(2-chloroethoxy)methane	isophorone
bis(2-chloroethyl)ether	1-methylnaphthalene
bis(2-chloroisopropyl)ether	2-methylnaphthalene
bis(2-ethylhexyl)phthalate	2-methylphenol
4-bromophenyl phenyl ether	3-methylphenol*
carbazole	4-methylphenol*
4-chloroaniline	naphthalene
4-chloro-3-methylphenol	2-nitroaniline
2-chloronaphthalene	3-nitroaniline
2-chlorophenol	4-nitroaniline
4-chlorophenyl phenyl ether	nitrobenzene
chrysene	2-nitrophenol
dibenzo(a,h)anthracene	4-nitrophenol
dibenzofuran	N-nitrosodimethylamine
1,2-dichlorobenzene	N-nitroso-di- <i>n</i> -propylamine
1,3-dichlorobenzene	pentachlorophenol
1,4-dichlorobenzene	phenanthrene
2,4-dichlorophenol	phenol
diethyl phthalate	pyrene
dimethyl phthalate	pyridine
2,4-dimethylphenol	2,3,4,6-tetrachlorophenol
1,2-dinitrobenzene	2,3,5,6-tetrachlorophenol
1,3-dinitrobenzene	1,2,4-trichlorobenzene
1,4-dinitrobenzene	2,4,5-trichlorophenol
4,6-dinitro-2-methylphenol	2,4,6-trichlorophenol

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

*3-methylphenol and 4-methylphenol at 500µg/mL.

¹1,2-diphenylhydrazine (8270-listed analyte) decomposes to azobenzene (mix component).

²N-nitrosodiphenylamine (8270-listed analyte) decomposes to diphenylamine (mix component).

8270 Matrix Spike Mix (76 components)

Same components as 8270 MegaMix™, but at lower concentration for spiking.

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 at 100µg/mL.

8270 Benzidines Mix

benzidine	3,3'-dimethylbenzidine
3,3'-dichlorobenzidine	

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

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