# REFERENCE STANDARDS COLUMN TEST MIXES

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#### GC

# Rxi®-5Sil MS/XLB Column Test Mix (8 components)

4-chlorophenol 1-methylnaphthalene dicyclohexylamine n-tetradecane (C14) 2-ethylhexanoic acid n-tridecane (C13) 1,6-hexanediol 1-undecanol



 $350\mu {\rm g/mL}$  each in methylene chloride, 1mL/ampul cat. # 35226 (ea.)

# Q-BOND and U-BOND Column Test Mix (7 components)

acetone n-hexane (C6)
diethyl ether (ethyl ether) methanol
ethanol n-pentane (C5)
ethyl acetate



0.1% vol/vol each in heptane, 1mL/ampul

cat. # 35202 (ea.)

# Grob Test Mix (12 components)

For use with temperature programmed conditions.

nC10-FAME	0.42mg/mL	2,6-dimethylphenol	0.32
nC11-FAME	0.42	2-ethylhexanoic acid	0.38
nC12-FAME	0.41	nonanal	0.40
2,3-butanediol	0.53	1-octanol	0.36
dicyclohexylamine	0.31	undecane (C11)	0.29
2,6-dimethylaniline	0.32	decane (ClO)	0.28

In methylene chloride, 1mL/ampul

cat. # 35000 (ea.)

No data pack available.

#### Amine Column Test Mix (8 components)

For Stabilwax®-DB, Rtx®-5Amine, and Rtx®-35Amine columns.

1,2-butanediol	0.60mg/mL	diethanolamine	1.20
pyridine	0.60	2-nonanol	0.60
decane (C10)	0.60	2,6-dimethylaniline	0.60
diethylenetriamine	1.20	dodecane (C12)	0.60

In methylene chloride:methanol (1:1), 1mL/ampul cat. # 35002 (ea.)

No data pack available.

#### Isothermal Column Test Mix (10 components)

1,2-hexanediol	0.46mg/mL	1-octanol	0.36
decane (C10)	0.29	nonanal	0.40
undecane (C11)	0.29	2,6-dimethylaniline	0.32
dodecane (C12)	0.29	2,6-dichlorophenol	0.57
tridecane	0.29	naphthalene	0.32

In methylene chloride, 1mL/ampul

cat. # 35003 (ea.)

No data pack available.



For Restek's complete line of column test mixes, visit our website at:

www.restek.com/testmixes





# GC cont'd

#### **OQ Response Linearity Test Standard** (6 components)

n-heptadecane (C17)  $1.5\mu \rm{g/mL}$  n-docosane (C22) 1,000 n-octadecane (C18) 10 n-tetracosane (C24) 10,000 n-nonadecane (C19) 2 n-eicosane (C20) 100 In isooctane, 1mL/ampul

In isooctane, 1mL/ampul cat. # 33906 (ea.)

# FID Performance Evaluation Standard (3 components)

*n*-tetradecane (C14) *n*-hexadecane (C16) *n*-pentadecane (C15)

0.03 w/w% each in hexane, 1mL/ampul

cat. # 33908 (ea.)

#### **OQ/PV Headspace Standard** (3 components)

1,2-dichlorobenzene tert-butyl disulfide nitrobenzene

 $2,000\mu$ g/mL each in ethanol, 1mL/ampul

cat. # 33909 (ea.)

#### **HPLC**

#### **HPLC Normal Phase Test Mix #1** (4 components)

benzene benzene benzeldehyde 1.00mg/mL benzyl alcohol 3.00 benzeldehyde 0.04 4-methoxybenzyl alcohol 2.00 In hexane, 1mL/ampul

in nexame, init/ ampui

cat. # 35004 (ea.)

No data pack available.

#### HPLC Reversed Phase Test Mix #1 (4 components)

benzene	3.00mg/mL	naphthalene	0.50
uracil	0.02	biphenyl	0.06
In methanol:water (75:25), 1mL/ampul			
cat. # 35005 (ea.)			

No data pack available.

#### **HPLC Performance Test Mix** (5 components)

The National Institute of Standards and Technology (NIST) has formulated a mixture that is highly effective for characterizing HPLC columns for efficiency, void volume, methylene selectivity, retentiveness, and activity toward chelators and organic bases. Results can be used for column classification, for column selection, for monitoring column performance over time, or for quality control. We test our material against the NIST 870 standard.

amitriptyline hydrochloride ethylbenzene	2,800µg/mL 1,700	quinizarin toluene uracil	94 1,400 28
In methanol, 1mL/ampul			
cat. # 31699 (ea.)			

#### HPLC cont'd

#### Carbohydrate HPLC Performance Check Mix (5 components)

Performance qualification (PQ) determines the precision of the HPLC system. Our performance check mix for HPLC/RI consists of five simple sugars in varied concentrations. We prepare the reference material in water, lyophilize it, and pack it dry for enhanced stability.

 glucose
 2.0mg
 maltose
 4.5

 fructose
 2.1
 sucrose
 4.0

 lactose
 4.4

Dry components in 4mL screw-cap vial. Reconstitute in 1mL acetonitrile:water (75:25) to 2.0, 2.1, 4.4, 4.5, 4.0mg/mL, respectively.

cat. # 31809 (ea.)

No data pack available.

#### **HPLC OQ Linearity Test Mix Kit**

Linear detector responses to concentration variations are an important part of operation qualification (OQ) for HPLC instruments. Our kit of five aqueous solutions of caffeine can be used to generate simple plots of UV response versus concentration. Certificate of Analysis includes caffeine concentration, calculated variance in preparing each mixture, a linearity plot, and coefficient of determination (r²) for the linear plot.

Caffeine at 5, 25, 125, 250,  $500\mu$ g/mL in water in a five ampul kit.

nic each of these mixtures.

cat. # 31805 (kit)

No data pack available. Quantity discounts not available.



Individual ampuls of caffeine are available on page 444.

### **Deactivating Agent**

## **Dimethyldichlorosilane (DMDCS) Deactivating Agent**

Restek offers dimethyldichlorosilane (DMDCS), for deactivating liners and other glassware. Simply dilute the neat material to a 5% solution in toluene, soak the glass item(s) in the solution for 15 minutes, and rinse with toluene and methanol. DMDCS reacts with active hydroxyl groups on the glass surface to produce a deactivated surface. A detailed procedure is included with the product.

dimethyldichlorosilane (DMDCS) Neat, 20mL/ampul

cat. # 31840 (ea.)





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