

Rxi-PAH GC Column

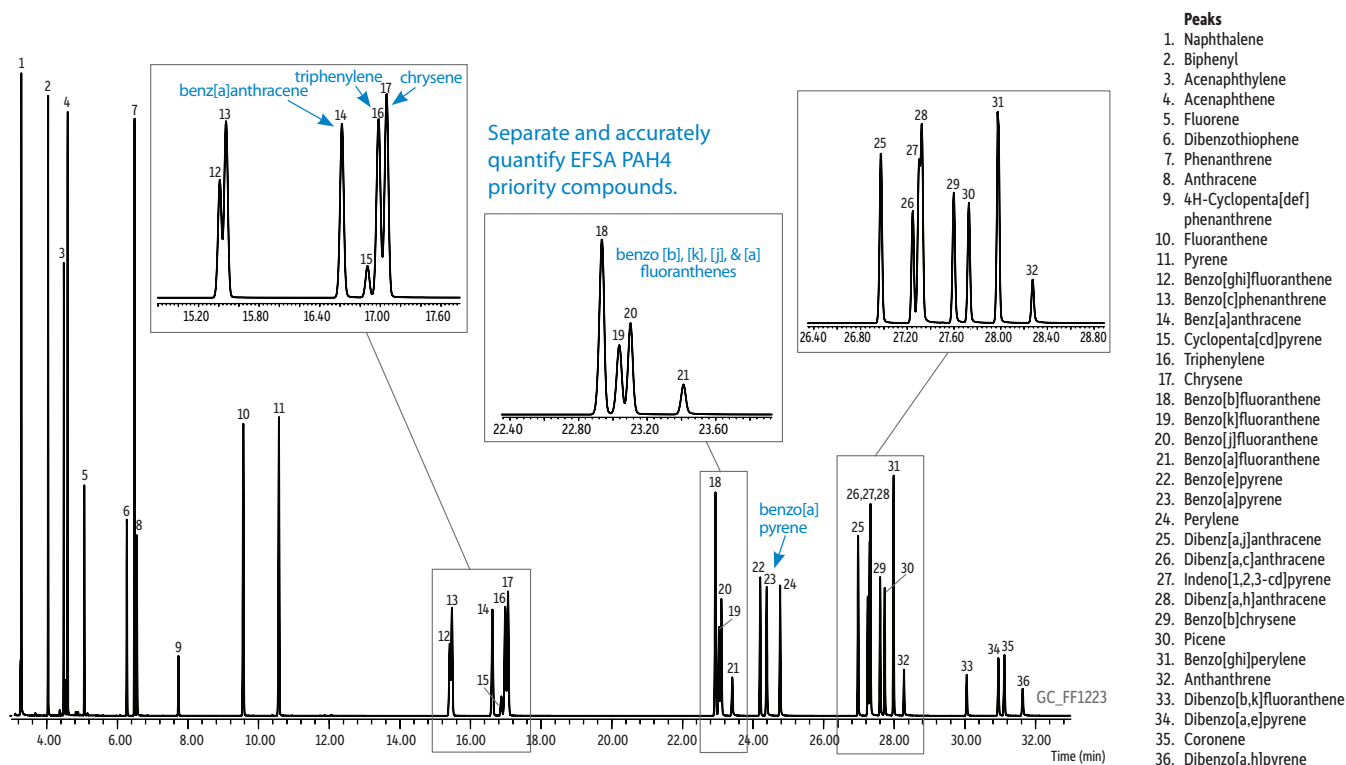
Resolve Important Isobaric Polycyclic Aromatic Hydrocarbons for Food Safety Methods

- Separation of **all** EFSA PAH4 compounds: benz[a]anthracene, chrysene, benzo[b]fluoranthene, and benzo[a]pyrene.
- **Best resolution** of chrysene from interfering PAHs; triphenylene; and cyclopenta[cd]pyrene.
- **Complete separation** of benzo [b], [k], [j], and [a] fluoranthenes.
- 360 °C thermal stability allows analysis of low volatility dibenzo pyrenes.



Rxi-PAH GC columns were designed by Restek with a higher phenyl-content stationary phase that provides a unique selectivity to separate important polycyclic aromatic hydrocarbons (PAHs) for food safety that cannot be distinguished by mass spectrometry. Even difficult priority compounds, such as the European Food Safety Authority (EFSA) PAH4, are easily separated and accurately quantified, results that cannot be achieved on typical GC columns. Arylene modification and surface bonding of the stationary phase increase thermal stability and ruggedness so relatively nonvolatile, higher molecular weight PAHs can be analyzed routinely without interference from column bleed. Excellent column efficiency means that the column can be trimmed for maintenance purposes many times without losing critical PAH separations.

Figure 1: A 40 m x 0.18 mm x 0.07 µm Rxi-PAH column produces excellent resolution of critical peaks in less than 33 minutes!



Column: Rxi-PAH, 40 m, 0.18 mm ID, 0.07 µm (cat.# 49316); **Sample:** NIST SRM 2260a PAH mix; **Diluent:** Toluene; **Conc.:** 0.2 - 2 µg/mL (SRM 2260a PAH mix was diluted 5x in toluene); **Injection:** 0.5 µL pulsed splitless (hold 0.58 min); **Liner:** Premium 2 mm single taper w/wool (cat.# 23316.1); **Inj. Temp.:** 275 °C; **Pulse Pressure:** 80 psi (551.6kPa); **Pulse Time:** 0.6 min; **Purge Flow:** 40 mL/min; **Oven:** 110 °C (hold 1 min) to 210 °C at 37 °C/min to 260 °C at 3 °C/min to 350 °C at 11 °C/min (hold 4.5 min); **Carrier Gas:** He, constant flow; **Flow Rate:** 1.4 mL/min; **Detector:** MS; **Mode:** SIM; **Transfer Line Temp.:** 350 °C; **Analyzer Type:** Quadrupole; **Source Temp.:** 350 °C; **Quad Temp.:** 200 °C; **Solvent Delay Time:** 3.00 min; **Tune Type:** PFTBA; **Ionization Mode:** EI; **Instrument:** Agilent 7890A GC & 5975C MSD. For SIM program and quant ion information, visit www.restek.com and enter GC_FF1223 in the search.



Rxi-PAH GC Columns: Perfect for EFSA PAH4 Priority Compounds!

Whether you want more resolution or faster analysis times, Rxi-PAH columns have the selectivity and efficiency you need. Choose the configuration that is best for your separation.

Cat.#	Length	ID	df	Description
49316	40 m	0.18 mm	0.07 µm	Narrow inside diameter, thinner film, faster analysis, excellent separation of important PAHs, less sample loading capacity
49317	60 m	0.25 mm	0.10 µm	0.25 mm inner diameter, better sample loading capacity, highest resolution of important PAHs, longer analysis than 0.18 mm column, thin film allows elution of dibenzo pyrenes
49318	30 m	0.25 mm	0.10 µm	0.25 mm inside diameter, better sample loading capacity, faster analysis time than 60 m column, adequate resolution of important PAHs, lower cost column

Recommended for PAH Analysis

Topaz GC Inlet Liners



Patented

Topaz 2.0 mm ID Single Taper Inlet Liner

for Agilent GCs equipped with split/splitless inlets

Suggested for
0.18 mm ID columns.

ID x OD x Length	Packing	qty	cat.#
2.0 mm x 6.5 mm x 78.5 mm	-	5-pk.	23315
2.0 mm x 6.5 mm x 78.5 mm	Quartz Wool	5-pk.	23316

Topaz 4.0 mm ID Single Taper Inlet Liner

for Agilent GCs equipped with split/splitless inlets

Suggested for
0.25 mm ID columns.

ID x OD x Length	Packing	qty	cat.#
4.0 mm x 6.5 mm x 78.5 mm	-	5-pk.	23302
4.0 mm x 6.5 mm x 78.5 mm	Quartz Wool	5-pk.	23303

Dual Vespel Ring Inlet Seals

Washerless, Leak-Tight Seals for Agilent GCs



- Does not require a separate washer.
- Requires less torque to seal.
- Does not require retightening of reducing nut after several oven cycles.
- Extends column lifetime by preventing oxygen from reaching the column.
- Same price as the regular inlet seals with washers.
- Gold plating provides enhanced inertness versus stainless steel.

ID	Instrument	Material	qty.	cat.#
0.8 mm	for Agilent GCs	Stainless Steel	10-pk.	21239
0.8 mm	for Agilent GCs	Gold-Plated	10-pk.	21241
0.8 mm	for Agilent GCs	Siltek-Treated	10-pk.	21243
1.2 mm	for Agilent GCs	Stainless Steel	10-pk.	21245
1.2 mm	for Agilent GCs	Gold-Plated	10-pk.	21247
1.2 mm	for Agilent GCs	Siltek-Treated	10-pk.	21249

Patented



Visit www.restek.com/rxi-pah
for easy online ordering.

RESTEK
Pure Chromatography

Questions? Contact us or your local Restek representative (www.restek.com/contact-us).

Restek patents and trademarks are the property of Restek Corporation. (See www.restek.com/Patents-Trademarks for full list.) Other trademarks in Restek literature or on its website are the property of their respective owners. Restek registered trademarks are registered in the U.S. and may also be registered in other countries. To unsubscribe from future Restek communications or to update your preferences, visit www.restek.com/subscribe To update your status with an authorized Restek distributor or instrument channel partner, please contact them directly.

© 2022 Restek Corporation. All rights reserved. Printed in the U.S.A.

www.restek.com



Lit. Cat.# FSS51718A-UNV