

SATISFY

THE RIGOROUS DEMANDS OF EPA 8270D

The Measure of Confidence

Agilent J&W DB-UI 8270D Ultra Inert GC Columns for EPA Method 8270D

Agilent J&W DB-UI 8270D Ultra Inert GC columns deliver excellent peak shape performance for active semivolatiles targeted by EPA Method 8270D, so you can perform environmental trace-level analysis with the utmost confidence.

Agilent J&W DB-UI 8270D GC columns support your most difficult semivolatiles analysis with:

- **Industry leading Ultra Inert deactivation and manufacturing:** Agilent's leading-edge manufacturing process – combined with optimized chemistries and design advancements – improve both inertness and trace-level sensitivity with proven column-to-column reproducibility. This is accomplished with no trade-offs in bleed or stationary phase selectivity.
- **Unmatched testing protocol:** Agilent J&W DB-UI 8270D GC columns are individually tested with the most probative active compounds of any GC column sold for semivolatiles analysis – such as propanoic acid, pyridine, 1,2 butanediol and 1-chloro-2-fluorobenzene, meta and para-xylene at low temperature (45 °C) – to ensure excellent peak shape performance at low levels (5-10 ng on-column).
- **Convenient, economical multi-packs:** Available for high-throughput labs. *Get six for the price of five!**



Open a QR code reader application on your SmartPhone and scan this code for additional product information.

Ordering Information

Part Number	Description
121-9723	DB-UI 8270D 20 m x 0.18 mm id, 0.36 µm
122-9732	DB-UI 8270D 30 m x 0.25 mm id, 0.25 µm
122-9736	DB-UI 8270D 30 m x 0.25 mm id, 0.50 µm
Economical 6-Packs*	
621-9723	DB-UI 8270D 20 m x 0.18 mm id, 0.36 µm 6-pack
622-9732	DB-UI 8270D 30 m x 0.25 mm id, 0.25 µm 6-pack

*Available only in the U.S.

As part of our industry-leading Ultra Inert GC column family, Agilent J&W DB-UI 8270D GC columns help you achieve excellent peak shapes for problematic compounds – plus reliable quantitation at trace-levels – so you can get the right answers the **first time**.

To complete your ultra inert solution, Agilent Ultra Inert Inlet liners provide a robust, reproducible and reliable inert flow path, even when containing wool.



Agilent Technologies

Proof of EPA 8270D compliance

Semivolatiles analysis with DB-UI 8270D GC columns

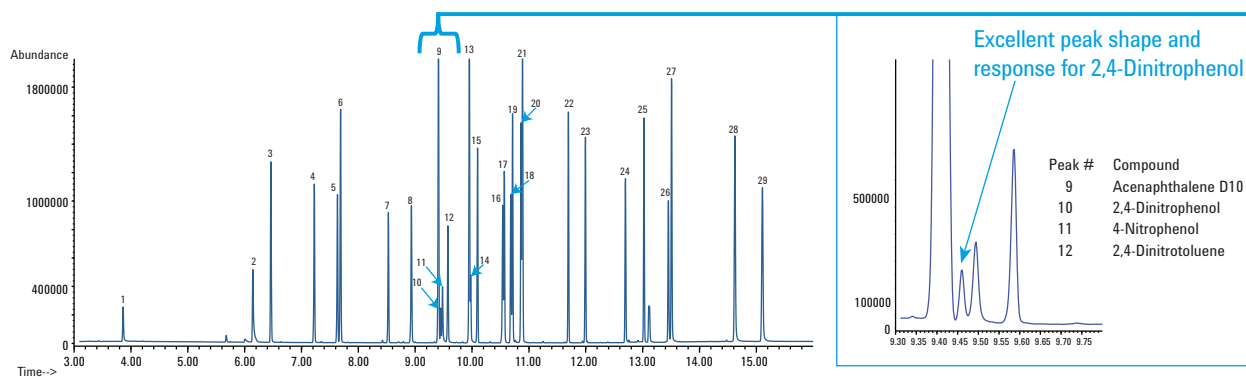
To determine how well Agilent J&W DB-UI 8270D Ultra Inert GC columns measure up to method 8270D standards, we designed semivolatile test mixes using demanding test probes relevant to method 8270D.

Acid and base behavior, aromatic isomer, and halogen selectivity were simultaneously evaluated, and testing was performed under stringent conditions to thoroughly probe for inertness, highest resolving power, and other key chromatographic parameters.

See below, the resolution of a 29-component semivolatiles mix demonstrating excellent peak shapes for all components. Results were obtained in less than 16 minutes using an Agilent J&W 20 m x 0.18 mm, 0.36 μ m DB-UI 8270D GC column.

Note that sharp, symmetrical peaks were achieved for both early-eluting analytes, such as N-Nitrosodimethylamine and late-eluting analytes, such as Perylene-d12. Also, an excellent peak shape was achieved for 2,4-Dinitrophenol which is one of the most challenging active target compounds.

10 ng/ μ L semivolatile checkout standard on an Agilent J&W 20 m x 0.18 mm, 0.36 μ m DB-UI 8270D capillary GC column using an Ultra Inert liner with wool



Example chromatogram of a 29-component mix on an Agilent J&W 20 m x 0.18 mm, 0.36 μ m DB-UI 8270D capillary GC column (Agilent p/n 121-9723).

2,4 Dinitrophenol expanded view

1. N-Nitrosodimethylamine	7. Hexachlorocyclopentadiene	13. Flourene	19. Terbufos	25. 4,4'-DDT
2. Aniline	8. Mevinphos	14. 4,6-Dinitro-2-methyl phenol	20. Chlorothanlonil	26. 3,3'-Dichlorobenzidine
3. 1,4-Dichlorobenzene-d4	9. Acenaphthene-d10	15. Trifluralin	21. Phenanthrene-d10	27. Chrysene d-12
4. Isophorone	10. 2,4-Dinitrophenol	16. Simazine	22. Aldrin	28. Benzo[b]fluoranthene
5. 1,3-Dimethyl-2-nitrobenzene	11. 4-Nitrophenol	17. Atrazine	23. Heptachlor epoxide	29. Perylene-d12
6. Naphthalene	12. 2,4-Dinitrotoluene	18. Pentachlorophenol	24. Endrin	

See how Agilent J&W DB-UI 8270D GC columns have raised the bar for semivolatile analysis in Agilent Application Note 5991-0250EN [Semivolatile Analysis with Specially Designed Agilent J&W DB-UI 8270D Ultra Inert GC Columns]

To order now, visit www.agilent.com/chem/UI8270D

To learn more about Agilent Ultra Inert GC Solutions, please visit www.agilent.com/chem/ultraintert

Or find your local Agilent Representative or Agilent Authorized Distributor at www.agilent.com/chem/wheretobuy

This information is subject to change without notice.

© Agilent Technologies, Inc. 2012
Printed in U.S.A., June 22, 2012
5991-0228EN

