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GC Accessories Tech Tip



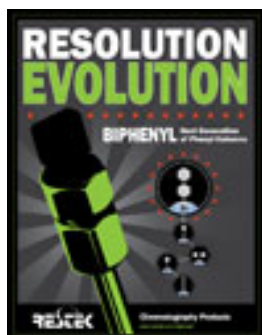
below Links are **INACTIVE ASK for PDF Copies**

[Ultra II™ LC Columns: The Column Line Designed for Optimal Chromatography on ANY LC System, Based on Highly Inert Restek Silica](#)

Added June 2009

Ultra II™ is the first LC column line specifically designed for universal application and completely scalable chromatography, from conventional to ultra-high pressure systems. Available in a wide range of phases, including traditional and unique chemistries.

[lit. cat.# GNTS1177](#) (393kb PDF)

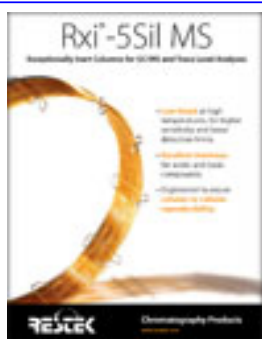


[Resolution Evolution: Biphenyl—Next Generation of Phenyl Columns](#)

< [Flyer](#)

Biphenyl columns provide both high hydrophobic retention and aromatic selectivity in the same column. Orthogonal separations can be achieved with simple mobile phase changes, giving markedly better separations for a wide variety of molecules.

[lit. cat.# GNFL1096](#) (523kb PDF)



[Rxi®-5Sil MS:](#)

[Exceptionally Inert Columns for GC/MS and Trace Level Analyses](#)

< [Flyer](#)

Rxi®-5Sil MS columns show lower bleed profiles and greater inertness than competitor columns, resulting in higher signal-to-noise ratios and lower detection limits—ideal for trace level work and sensitive GC/MS applications.

[lit. cat.# GNFL1061](#) (455kb PDF)



[GC Columns](#)

< [Minicatalog](#)

This 100-page comprehensive mini-catalog covers our extensive collection of GC columns and provides valuable overviews on topics such as column selection, column installation, guard column/retention gap comparison, and fast GC.

[lit. cat.# GNMC1034](#) (3.86mb PDF)



[Restek Electronic Leak Detector](#)

< Fast Facts

Restek's rugged new handheld electronic leak detector detects common laboratory gases at trace levels and offers enhanced features for user convenience and reliable performance. This 2-page note describes the unit's many features and benefits.

[lit. cat.# GNPC1078](#) (256kb PDF)

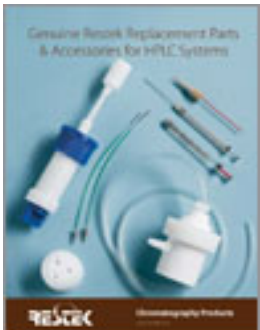


[Simplify Sample Prep and Protect Analytical Equipment using Syringe Filters](#)

< Fast Facts

Filtering sample extracts with syringe filters will greatly extend the life of costly chromatographic columns and replacement parts, particularly for HPLC systems. This 2-page fact sheet includes helpful membrane, porosity, and size selection guides.

[lit. cat.# GNFF1072](#) (103kb PDF)



[Genuine Restek Replacement Parts and Accessories for HPLC Systems](#)

< Flyer

Genuine Restek Replacement Parts meet or exceed original equipment components. This 8-page publication lists a wide selection of Restek parts for Agilent, Beckman, Hitachi, PerkinElmer, Shimadzu, Thermo Separation Products, and Waters instruments.

[lit. cat.# GNFL1059](#) (366kb PDF)



[Liner Anatomy Wall Chart](#)

[< Wall Chart](#)

Use this attractive poster to understand liner features and quickly determine which inlet liner is right for your application. Easy-to-read, informative comparisons of packing options, geometries, deactivations, and dimensions.

[lit. cat.# GNWC1014](#) (224kb PDF)

To request your Liner Anatomy wall chart by mail, click on the send request button.

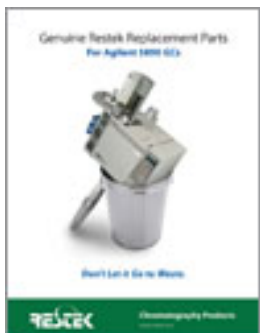


[Inlet Solutions](#)

[< Minicatalog](#)

Change inlet liners, septa, and ferrules regularly, to avoid unanticipated downtime. Our pocket-sized 68-page guide lists liners, seals, septa, ferrules, and other necessities for Agilent, Varian, Shimadzu, PerkinElmer, and Thermo Scientific systems.

[lit. cat.# GNMC1004](#) (1.29mb PDF)



[Genuine Restek Replacement Parts for Agilent 5890 GCs](#)

[< Minicatalog](#)

An extensive catalog of consumer-replaceable instrument parts, tools, accessories, and supplies needed to keep an Agilent 5890 GC running at top performance. Many items are designed to save time or improve results, and are exclusive to Restek.

[lit. cat.# 580216](#) (971kb PDF)

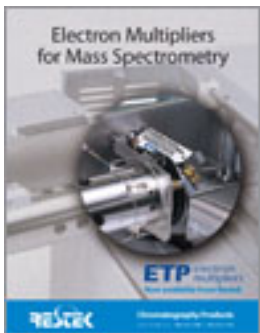


[Dual Vespel® Ring Inlet Seals: Trouble-Free, Leak-tight, and Highly Inert](#)

[< Flyer](#)

Restek's Dual Vespel® Ring inlet seal gives you a better seal with fewer parts. Data show that the soft Vespel® material has a much lower leak rate than a metal seal. Also, since less torque is required for installation, user variability is reduced.

[lit. cat.# 580186](#) (265kb PDF)



[Electron Multipliers for Mass Spectrometry](#)

[< Flyer](#)

The multi-dynode approach of all ETP electron multipliers results in longer lifetimes and better sensitivity compared with channel multipliers. This 4-page note describes the features and benefits of ETP electron multipliers.

[lit. cat.# GNFL1000](#) (398kb PDF)



[Thermal Desorption: A Practical Applications Guide](#)

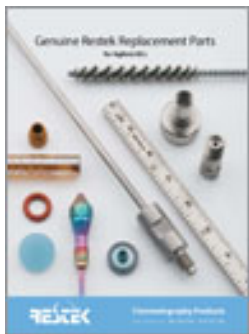
[Residual Volatiles and](#)

[Materials Emissions Testing](#)

[< Technical Guide](#)

Thermal desorption is a convenient, fully automated alternative to solvent extraction for measuring residual volatiles. This 32-page publication from Markes International Ltd. details the testing of a wide variety of products using thermal desorption.

[lit. cat.# GNTG1035](#) (1.4mb PDF)



[Genuine Restek Replacement Parts for Agilent GCs](#)

[< Minicatalog](#)

An extensive catalog of consumer-replaceable instrument parts, tools, accessories, and supplies needed to keep an Agilent GC running at top performance. Many items are designed to save time or improve results, and are exclusive to Restek.

[lit. cat.# 59627F](#) (1.3mb PDF)



[Genuine Restek Replacement Parts for PerkinElmer GCs](#)

[< Minicatalog](#)

An extensive catalog of consumer-replaceable instrument parts, tools, accessories, and supplies needed to keep a PerkinElmer GC running at top performance. Many items are designed to save time or improve results, and are exclusive to Restek.

[lit. cat.# 580038](#) (946kb PDF)



[Genuine Restek Replacement Parts for Shimadzu GCs](#)

[< Minicatalog](#)

An extensive catalog of consumer-replaceable instrument parts, tools, accessories, and supplies needed to keep a Shimadzu GC running at top performance. Many items are designed to save time or improve results, and are exclusive to Restek.

[lit. cat.# 580037](#) (963kb PDF)



[Genuine Restek Replacement Parts for Thermo Scientific GCs](#)

< [Minicatalog](#)

An extensive catalog of consumer-replaceable instrument parts, tools, accessories, and supplies needed to keep a Thermo GC running at top performance. Many items are designed to save time or improve results, and are exclusive to Restek.

[lit. cat.# 580039](#) (974kb PDF)



[Genuine Restek Replacement Parts for Varian GCs](#)

< [Minicatalog](#)

An extensive catalog of consumer-replaceable instrument parts, tools, accessories, and supplies needed to keep a Varian GC running at top performance. Many items are designed to save time or improve results, and are exclusive to Restek.

[lit. cat.# 59224A](#) (988kb PDF)



[Instrument Tube Fitting Installation Manual](#)

< [Technical Guide](#)

An excellent reference tool for chromatographers who install fluid line systems. In addition to the "do" and "do not" recommendations for cutting tubing and installing fittings, the 76-page guide includes a wealth of background information. Published by Parker Hannifin Corporation.

[lit. cat.# 59612A](#) (1.3mb PDF)



[Operating Hints for Using Split/Splitless Injectors](#)

< Technical Guide

Learn about the advantages of these commonly used sample injection techniques—and their disadvantages—to obtain the best results and avoid problems. This 36-page guide is focused on system optimization, maintenance, and troubleshooting. An extensive selection of inlet liners and other products is included.

[lit. cat.# 59880A](#) (425kb PDF)

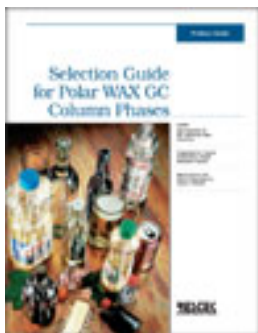


[A Guide to Direct and On-column Flash Vaporization Injection](#)

< Technical Guide

This 24-page guide discusses the advantages and disadvantages of direct injection, compared to other techniques, and examines considerations such as modifying a splitless inlet, retrofitting a packed column injection port, and the need for make-up gas. Operating parameters such as flow rates and sample injection volume are reviewed.

[lit. cat.# 59882A](#) (285kb PDF)

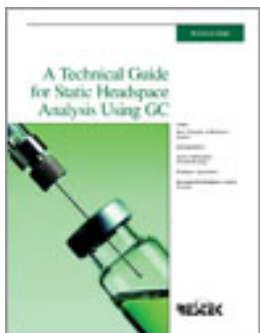


[Selection Guide for Polar WAX GC Column Phases](#)

< Technical Guide

Restek PEG-based capillary columns are designed for specific categories of applications, for low bleed, excellent inertness, and unsurpassed column-to-column reproducibility. This 16-page guide discusses the performance characteristics of and applications for Restek PEG-based columns.

[lit. cat.# 59890](#) (702kb PDF)



[A Technical Guide for Static Headspace Analysis Using GC](#)

< [Technical Guide](#)

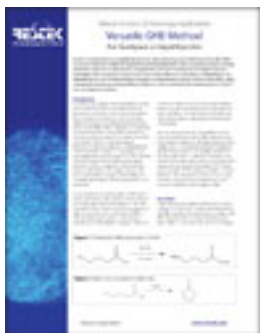
Static headspace analysis will save you time and money when assaying a variety of sample matrices—and often is easier than alternative sampling approaches. This 20-page guide discusses basic principles, instrumentation, applications, and troubleshooting.

[lit. cat.# 59895A](#) (634kb PDF)

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[CLINICAL/FORENSICS ARTICLE](#)

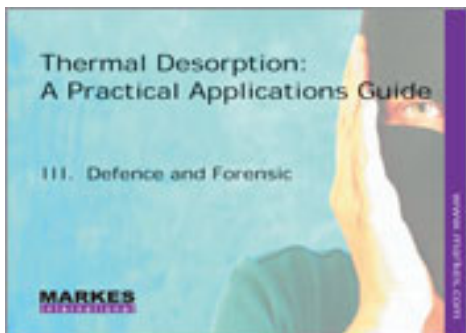


[Versatile GHB Method for Headspace or Liquid Injection](#)

< [Application Note: Added February 2009](#)

The headspace (HS) analysis of gamma-hydroxybutyrate (GHB) described here reduces contamination and eliminates time-consuming derivatization. Confirmation testing using an Rtx®-5MS column, provides definitive results in less than 7 minutes.

[lit. cat.# CFAN1107](#) (209kb PDF)



HROMalytic +61(0)3 9762 2034
ECHnology Pty Ltd

Australian Distributors; Importers & Manufacturers

< [Technical Guide](#)

Thermal desorption is used extensively for forensic science. This 16-page publication from Markes International Ltd. presents several key applications including drugs, arson accelerants, trace explosives, shotgun propellant, and inks.

[lit. cat.# CFTG1036](#) (665kb PDF)



[Clinical/Forensics Products & Applications for GC & HPLC](#)

< [Minicatalog](#)

Clinical applications include analgesics, antihistamines, cardiac drugs, cold medications, steroids, and more; forensic applications include arson accelerants, barbiturates, blood alcohol, butyrolactone, cannabinoids, cocaine, opiates, and more.

[lit. cat.# 59989A](#) (1.7mb PDF)



[Blood Alcohol Testing Ethanol Analytical Reference Materials](#)

< [Fast Facts](#)

Results of a blood alcohol analysis must be reliable. This 2-page publication describes carefully prepared, NIST-traceable, reference materials for this application, and lists GC columns that will complete the analysis in less than 3 minutes.

[lit. cat.# 59382C](#) (79.6kb PDF)



[Identification of Cocaine Adulterants Using GC and HPLC](#)

< [Application Note](#)

GC and LC methods can be used to "fingerprint" cocaine samples for law enforcement purposes. Here we show the analysis of simulated cocaine samples by both techniques and give column and instrument conditions for successful analysis.

[lit. cat.# 580033](#) (294kb PDF)

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[Environmental Article](#)



[Environmental Products:](#)

[Innovative Solutions, Comprehensive Support](#)

< [Flyer: Added October 2009](#)

Chromatograms, technical tips, and products for GC and LC environmental methods. Focuses on semivolatiles, volatiles, organochlorine pesticides, carbamates, PAHs, and explosives. Includes recommended accessories, consumables, and sample prep products.

[lit. cat.# EVFL1192](#) (1.54mb PDF)

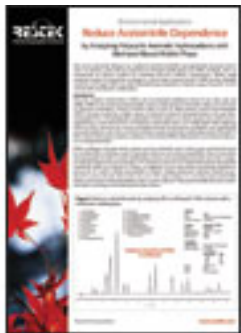


[Analysis of Explosives by Liquid Chromatography](#)

< [Application Note: Added May 2009](#)

Ultra II Aromax and Ultra C8 columns were determined to provide better separations for the routine analysis of explosives by LC than conventional phases.

[lit. cat.# EVAN1176](#) (149kb PDF)



[Reduce Acetonitrile Dependence by Analyzing Polycyclic Aromatic Hydrocarbons with Methanol-Based Mobile Phase](#)

< **Application Note: Added May 2009**

Switching to a methanol-based mobile phase for polycyclic aromatic hydrocarbon analysis—using the method shown here—is an effective way to save money by reducing acetonitrile consumption.

[lit. cat.# EVAN1164](#) (119kb PDF)



[Restek Airmail, Vol.2](#)

< **Newsletter**

This 4-page newsletter includes new applications for monitoring total reduced sulfurs at ppbv levels and air can sampling of microbial volatile organic compound (VOC) for testing by GC/MS. Also features new air sampling products.

[lit. cat.# GNFL1067](#) (306kb PDF)

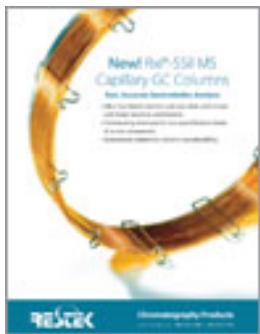


[Thermal Desorption Tubes: Versatile Air Sampling for a Wide Range of Applications](#)

< **Flyer**

This flyer gives an overview of TD sampling and describes many applications that can be sampled using this versatile technique. Includes a comparison of tube and canister sampling, to help you determine which VOC sampling technique is best for you.

[lit. cat.# EVFL1065](#) (176kb PDF)



[Rxi®-5Sil MS Capillary GC Columns: Fast Accurate Semivolatiles Analysis](#)

< [Flyer](#)

Rxi®-5Sil MS columns show excellent sensitivity and resolution for semivolatiles, even difficult PAHs such as benzo(b) & benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene & dibenzo(a,h)anthracene. Basic and acidic compounds show good low-level response.

[lit. cat.# EVFL1024](#) (619kb PDF)



[Whole Air Sampling for Vapor Intrusion](#)

< [Tear Sheet](#)

This 2-page note describes the features and benefits of our popular TO-Can® air monitoring canisters (SUMMA® can equivalents), our new canister air sampling timer, and our convenient, reliable passive air sampling kits.

[lit. cat.# EVTS1023](#) (206kb PDF)



[Restek Airmail, Vol.1](#)

< [Newsletter](#)

This 4-page newsletter includes informative articles on how to prolong canister life and how to compare thermal desorption tubes vs. canister sampling to determine which VOC sampling technique is right for you. Also features new air sampling products.

[lit. cat.# GNFL1015](#) (143kb PDF)



[Air Monitoring Products](#)

< Minicatalog

This 32-page minicatalog covers our extensive collection of air sampling products. Includes detailed listings for air sampling canisters, thermal desorption unit tubes, gas sampling bags, sample cylinders, gas standards, accessories, and more.

[lit. cat.# GNMC1062](#) (1.18mb PDF)



[Analyze Chlorinated Pesticides, PCBs, and Chlorinated Herbicides using Rtx®-CLPesticides and Rtx®-CLPesticides2 Fused Silica Columns](#)

< Flyer

Rtx®-CLPesticides and Rtx®-CLPesticides2 columns are ideal for multiple environmental ECD methods. Here we demonstrate the effectiveness of this column pair for chlorinated pesticides, PCBs as Aroclors, and chlorinated herbicides.

[lit. cat.# EVFL1013](#) (647kb PDF)



[Underground Storage Tanks: Compliance Monitoring with Restek Analytical Reference Materials](#)

< Flyer

Restek develops analytical standards for underground storage tank testing. This flyer includes UST fuel composite standards, single source fuel standards, fuel surrogate and internal standards, and standards blended for specific state methods.

[lit. cat.# EVF](#)





[Thermal Desorption: A Practical Applications Guide](#)

[Environmental Air](#)

[Monitoring and](#)

[Occupational Health and](#)

[Safety](#)

< [Technical Guide](#)

Thermal desorption is now recognized as the technique of choice for environmental air monitoring and occupational health & safety. This 28-page publication from Markes International Ltd. presents several real world thermal desorption applications.

[lit. cat.# EVTG1034](#) (1.11mb PDF)



[Guide to Preparing and Analyzing Semivolatile Organic Compounds](#)

< [Technical Guide](#)

Analyses of semivolatile organic compounds in environmental samples hold many challenges. At the same time, quality assurance/quality control requirements can be rigorous. This 28-page guide offers valuable information across the entire scope of the analysis: sample extraction and cleanup, column selection, GC analysis (including hints for reducing discrimination in the injection port), and quantification.

[lit. cat.# 59411A](#) (845kb PDF)



[Optimizing the Analysis of Volatile Organic Compounds](#)

< [Technical](#)



This 72-page guide offers a concise, but thorough, overview to analyzing volatile organic compounds in environmental samples. Sections describe purge and trap theory, adsorbents and traps, troubleshooting purge and trap systems, GC system configurations for narrow-bore or wide-bore capillary columns, and detection systems and how they work. A large selection of chromatograms is included.

[lit. cat.# 59887A](#) (961kb PDF)

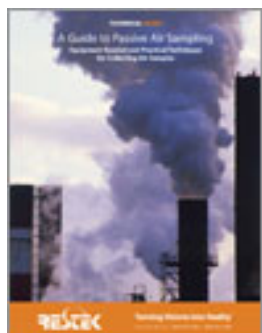


[A Guide to Preparing and Analyzing Chlorinated Pesticides](#)

< [Technical Guide](#)

Analyses of chlorinated pesticides can be difficult because samples often are contaminated with non-target compounds (e.g., lipids), and the method can require rigorous quality control. Our 24-page guide covers sample extraction methodology, sample cleanup, and chromatography. A chromatographic analysis of widely used chlorinated herbicides also is illustrated.

[lit. cat.# 59892](#) (571kb PDF)



[A Guide to Passive Air Sampling](#)

< [Technical Guide](#)

Collecting a representative sample of ambient air for analysis, analyzing the sample, and readying the sampling equipment for collecting another sample is not difficult, but the processes involved must be followed carefully. This 20-page guide describes the components of a passive sampling train, then presents step-by-step procedures for sampling, cleaning the sampling train and canister, and certifying the train and canister clean.

[lit. cat.# 59977B](#) (719kb PDF)

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[Food, Flav](#)





[QuEChERS Products:](#)

[Fast, Simple Sample Prep for Multi-Residue Pesticide Analysis](#)

< Flyer: Added July 2009

Learn how to use the QuEChERS approach for faster, easier preparation of samples for multiresidue pesticide analysis. QuEChERS saves time, money, and materials, compared to modified Luke methods.

[lit. cat.# FFFL1183](#) (622kb PDF)



[Comprehensive Pesticide Residue Analysis by LC/MS/MS](#)

< Fast Fact: Added June 2009

Analysis of pesticide residues in foods is complicated by the large number of target compounds. LC/MS/MS analysis using an Aqueous C18 column provides more comprehensive results than GC alone.

[lit. cat.# FFFF1185](#) (654kb PDF)



[GC/MS Analysis of Melamine and Cyanuric Acid Below 1µg/g in Infant Formula](#)

< Application Note: Added February 2009

The new 1µg/g safety threshold for melamine in infant foods has led to an immediate need for more sensitive methods. Here we established GC/MS conditions for highly reproducible analyses of melamine and cyanuric acid at 1µg/g in infant formula.

[lit. cat.# FFAN1137](#) (453kb PDF)



[Fast, Simple QuEChERS Extraction and Cleanup of Pesticide Residue Samples](#)

< Application Note

QuEChERS dSPE methods simplify extract cleanup, reduce material costs, and improve sample throughput. Here we demonstrate the effectiveness of QuEChERS sample cleanup using a multiresidue analysis of pesticides on strawberries.

[lit. cat.# GNAN1097A](#) (157kb PDF)



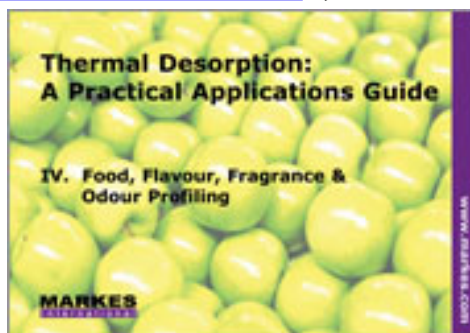
[Q-sep™ QuEChERS Products:](#)

[Fast, Simple Sample Prep for Multi-Residue Pesticide Analysis](#)

< Tear Sheet

Q-sep™ QuEChERS solid phase extraction cartridges. SPE tubes, columns, and reference standards for fast, simple extraction, cleanup, and analysis of pesticide residue samples from food products. Designed for AOAC and European methods.

[lit. cat.# FFTS1199](#) (208kb PDF)



[Thermal Desorption: A Practical Applications Guide](#)

[Food, Flavour, Fragrance](#)

[and Odour Profiling](#)

< Technical Guide

Thermal desorption is used extensively for measuring volatile and semivolatile components in foods, flavors, fragrances, and odors. This 28-page publication from Markes International Ltd. presents several key applications.

[lit. cat.# FFTG1037](#) (1.90mb PDF)

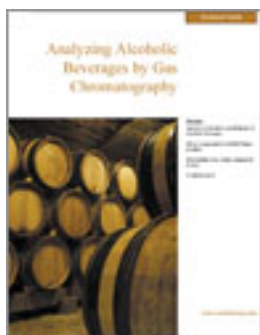


[Foods, Flavors, Fragrances](#)

< [Minicatalog](#)

This 64-page guide is a good overview of the foods-flavors-fragrances applications for which Restek GC columns, HPLC columns, and analytical reference mixes have been used. Includes a handy index of retention times for many flavor and fragrance compounds on several Restek GC stationary phases.

[lit. cat.# 59260A](#) (1.9mb PDF)

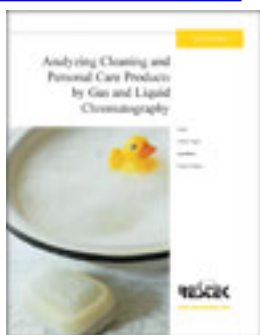


[Analyzing Alcoholic Beverages by Gas Chromatography](#)

< [Technical Guide](#)

Volatile component profiles of alcoholic beverages reveal a wide range of compounds: acids, alcohols, aldehydes, and others. This 16-page guide describes packed column GC and capillary GC approaches to monitoring these complex mixtures of analytes. A separate section is devoted to detailed information about quantifying trace sulfur compounds in beer.

[lit. cat.# 59462](#) (360kb PDF)



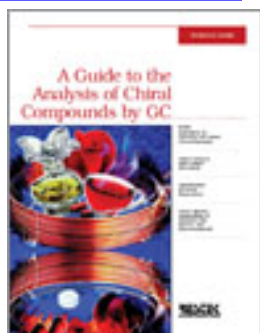
[Analyzing Cleaning and Personal Care Products by Gas and Liquid Chromatography](#)

< [Technical Guide](#)

Many components of household cleaners and personal care products are effectively monitored by GC and/or HPLC. Sometimes either approach can be used for the same purpose, but one will offer advantages over the other. This 16-page guide presents numerous examples of GC and

HPLC analyses of these diverse products.

[lit. cat.# 59738](#) (424kb PDF)



[A Guide to the Analysis of Chiral Compounds by GC](#)

< [Technical Guide](#)

In some analyses, particularly with pharmaceutical or flavor and fragrance compounds, enantiomer pairs must be resolved for separate quantification. Restek chiral capillary GC columns offer a unique range of selectivities, to enable you to accomplish these separations. Many example chromatograms in this 24-page guide will help you find the best column—or columns—for your particular need.

[lit. cat.# 59889](#) (461kb PDF)

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[Chemical/Petrochemical Article](#)



[New Solutions for Your Petro Analyses](#)

< [Flyer: Added October 2009](#)

Chromatograms, technical tips, and products developed specifically for petrochemical testing. Detailed recommendations for simulated distillation, PLOT column applications, DHA, D3606, biodiesel, permanent gases and hydrocarbons.

[lit. cat.# PCFL1195](#) (804kb PDF)



[Stabilized GC PLOT Columns](#)

< Flyer: Added October 2009

New bonded PLOT columns from Restek offer significantly reduced particle release, which extends column lifetime and gives highly reproducible retention times. This flyer illustrates improved flow and chromatography for various gases and solvents.

[lit. cat.# PCFL1163A](#) (413kb PDF)



[Increase Productivity: Get More Runs from Your SimDist Setup Using Next Generation MXT®-1HT Columns](#)

< Flyer: Added October 2009

New MXT®-1HT SimDist GC columns are shown to outperform competitors, allowing more productive D6352 analyses. Low bleed levels ensure accurate data and longer column lifetime. High efficiency improves resolution, assuring more samples can be run within method specifications.

[lit. cat.# PCFL1201](#) (348kb PDF)

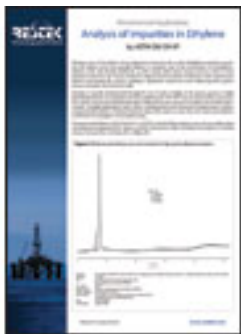


[17 Minute D2712 Analysis of Impurities in Propylene Using PLOT Columns](#)

< Application Note: Added October 2009

When analyzing hydrocarbon impurities in propylene by ASTM D2712, using an Rt®-Alumina BOND Na₂SO₄ PLOT column instead of a packed column setup provides the greatest degree of resolution in the least amount of time.

[lit. cat.# PCFL1163A](#) (413kb PDF)



[Analysis of Impurities in Ethylene by ASTM D6159-97](#)

< **Application Note: Added August 2009**

When testing for impurities in ethylene using ASTM D6159-97, the combination of an Rt®-Alumina BOND column coupled to an Rtx®-1 column provides the best resolution of the most common hydrocarbon contaminants.

[lit. cat.# PCAN1174](#) (176kb PDF)



[Detailed Hydrocarbon Analysis Featuring Rtx®-1PONA Columns](#)

< **Flyer: Added January 2009**

This 8-page flyer demonstrates the performance of Rtx®-1 PONA capillary GC columns for detailed hydrocarbon analysis. These columns meet or exceed all ASTM D6730 and Canadian General Standards Board method requirements, includes chromatograms.

[lit. cat.# PCFL1007](#) (373kb PDF)

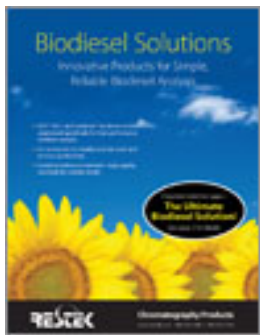


[Air Sampling Cylinders and Valves for a Rugged, Highly Inert Surface](#)

< **Tear Sheet**

Using Sulfinert® treated gas sampling equipment ensures that sulfur and other active compounds will be stable during transport and storage. This 2-page note describes the features and benefits of Sulfinert® treated sampling cylinders and valves.

[lit. cat.# PCTS1022](#) (175kb PDF)



[Biodiesel Solutions:](#)

[Innovative Products for Simple, Reliable Biodiesel Analysis](#)

< Flyer

This flyer includes data demonstrating the performance of recommended GC columns for the analysis of total glycerin, fatty acid methyl esters (FAMES), and residual methanol in biodiesel. Features a comparison of metal and fused silica columns.

[lit. cat.# 580207](#) (742kb PDF)



[A High-Temperature Polydimethylsiloxane-Phase Column for ASTM D-6352-98 Simulated Distillation Analyses](#)

< Application Note

Simulated distillation by ASTM D6352 requires a column that is stable up to 430°C. Metal MXT®-1 HT Sim Dist columns meet all method criteria and have higher thermal stability than fused silica. Data for 400 injections at 430°C demonstrate column performance.

[lit. cat.# 59479A](#) (98kb PDF)



[High-Performance Molecular Sieve 5A and 13X Packed Columns for Gas Chromatography Separations](#)

< Application Note

Restek has optimized molecular sieve 5A and 13X columns for trace analyses, including difficult analytes like oxygen and carbon monoxide. Example chromatograms in this 2-page note show sharp, symmetric peaks for permanent gases.



[lit. cat.# 59538A](#) (89kb PDF)



[OPN and n-Octane on Res-Sil C Packing, for the Separation of Hydrocarbons](#)

< Application Note

Res-Sil support is an excellent replacement for discontinued Poracil® C. Stringent testing of the bonded packing ensures reproducible separations and retention times for C1-C5 hydrocarbons, including difficult-to-separate saturated and unsaturated C4 compounds.

[lit. cat.# 59549A](#) (99kb PDF)

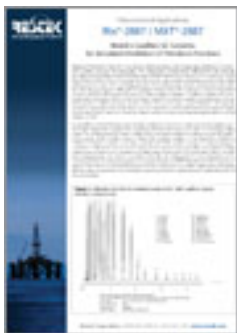


[GC Analysis of Petroleum Products by Simulated Distillation, Using MXT® Sim Dist Columns](#)

< Application Note

MXT®-1 Sim Dist and MXT®-500 Sim Dist columns meet all ASTM D6352 criteria. MXT®-500 Sim Dist columns have lower bleed and longer lifetimes, but calculated boiling points for aromatics are higher (closer to true values); MXT®-1 Sim Dist columns offer polarity that matches published data.

[lit. cat.# 59551A](#) (112kb PDF)



[Restek's Capillary Column for Simulated Distillation of Petroleum Fractions](#)

< Application Note

ASTM D2887-01a is used to monitor petroleum products, excluding gasoline, with final boiling points of less than 538°C. Metal MXT®-2887 columns and fused silica Rtx®-2887 columns offer lower bleed, faster analysis times, and longer column lifetimes.

[lit. cat.# 59567B](#) (76kb PDF)

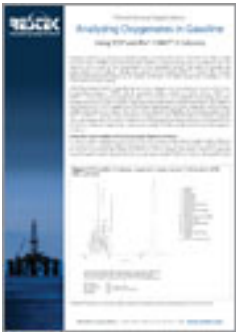


[Rtx®-1: A New Bonded Packed Column for Simulated Distillation](#)

< [Application Note](#)

The stationary phase in Rtx®-1 Sim Dist columns is bonded to a highly deactivated silica support, ensuring inertness, stability, and column lifetime characteristics superior to conventional packed columns for Sim Dist analysis (ASTM Methods D2887, D3710).

[lit. cat.# 59570A](#) (136kb PDF)



[Analyzing Oxygenates in Gasoline](#)

< [Application Note](#)

Two methods are used to quantify individual alcohols and ethers in gasoline: a single column OFID method (e.g., ASTM Method D5599-94) and dual-column ASTM Method D4815-93. Restek offers columns, standards, and accessories to support both approaches.

[lit. cat.# 59587A](#) (75kb PDF)

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This 12-page reference includes a review of headspace fundamentals, the revised USP <467> method (July, 2008), chromatography for Procedures A, B, and C, and technical tips for optimization. Guidance on fast, effect method development is given.

[lit. cat.# PHFL1018](#) (483kb PDF)



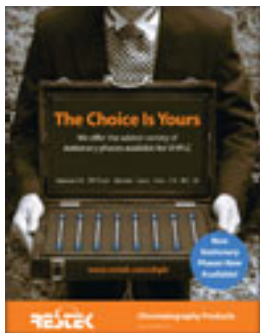
[Optimize Selectivity & Efficiency in UHPLC Separations](#)

[With More Stationary Phase Choices on 1.9µm Pinnacle® DB HPLC Columns](#)

< Application Note

Here we demonstrate the importance of stationary phase choice in UHPLC separations. By optimizing selectivity for your analytes of interest, faster separations can be achieved without compromising resolution.

[lit. cat.# 580202](#) (277kb PDF)



[The Choice Is Yours:](#)

[We offer the widest variety of stationary phases available for UHPLC](#)

< Flyer

Restek offers the widest variety of stationary phases on UHPLC columns. Here we show how proper stationary phase choice translates into faster, highly selective results. Includes chromatograms and instructions on how to scale HPLC methods down to UHPLC.

[lit. cat.# PHFL1009](#) (727kb PDF)



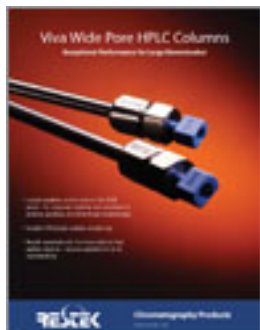
[Systematic Transfer of HPLC Methods to UHPLC](#)



< Application Note

Scaling HPLC methods down to UHPLC is an effective way to obtain shorter analysis times and increase sample throughput. Here we review factors that must be considered when scaling down an existing method using a sulfonamides method as an example.

[lit. cat.# GNAN1033](#) (222kb PDF)



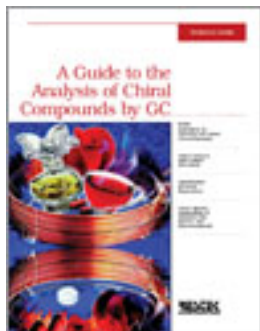
[Viva Wide Pore HPLC Columns:](#)

[Exceptional Performance for Large Biomolecules!](#)

< Tear Sheet

Viva Wide Pore HPLC columns offer the largest surface area available in 250-350Å pores, giving maximum retention and resolution of proteins, peptides, and other large biomolecules. Includes product info. and chromatography for the PEGylation of oxytocin.

[lit. cat.# PHTS1008](#) (445kb PDF)



[A Guide to the Analysis of Chiral Compounds by GC](#)

< Technical Guide

In some analyses, particularly with pharmaceutical or flavor and fragrance compounds, enantiomer pairs must be resolved for separate quantification. Restek chiral capillary GC columns offer a unique range of selectivities, to enable you to accomplish these separations. Many example chromatograms in this 24-page guide will help you find the best column—or columns—for your particular need.

[lit. cat.# 59889](#) (461kb PDF)

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