

## Separate a Wide Variety of Polar Analytes with a Raptor Polar X Hybrid Column

- No time-consuming derivatization or complex ion pairing.
- Switch between retention modes with simple mobile phase changes and short equilibration times.
- Ideal for increasing sensitivity and selectivity in LC-MS analyses.



**Raptor**  
LC Columns  
*Selectivity Accelerated*



**Latest  
Innovations and  
Reliable Favorites**

## Get a Quicker Cleanup: Resprep SLE Cartridges and 96-Well Plates

- Just load, wait 5 min, then elute.
- Removes proteins, phospholipids, and salts.



## New Rxi-65TG Columns Ensure Accurate, Reliable GC Analysis of Triglycerides in Edible Oils

High-temperature stability ensures consistent results and fewer column changes.



# Quickly and Precisely Verify Vacuum/Pressure Flow Rates Before Going into the Field—Alicat Whisper Flow Calibrators

- Real-time calibration of controllers, passive sampling kits, canisters, pumps, and more.
- Measure absolute pressure, mass flow, volumetric flow, and temperature for 98 different gases.
- Available in lab-based and portable models.

Description	Certification/ Compliance	Dimensions	Flow Capacity	Type	qty.	cat.#
Portable Mass Flow Calibrator, Whisper Series	CE, NIST	5.7" h x 2.4" w x 1.1" d	0–50 sccm	Color Display	ea.	27330
	CE, NIST	5.7" h x 2.4" w x 1.1" d	0–50 sccm	Monochrome Display	ea.	27331
	CE, NIST	5.7" h x 2.4" w x 1.1" d	0–500 sccm	Color Display	ea.	27332
	CE, NIST	5.7" h x 2.4" w x 1.1" d	0–500 sccm	Monochrome Display	ea.	27333
Lab-Based Mass Flow Calibrator, Whisper Series	CE, NIST	4.1" h x 2.4" w x 1.1" d	0–50 sccm	Color Display	ea.	27334
	CE, NIST	4.1" h x 2.4" w x 1.1" d	0–50 sccm	Monochrome Display	ea.	27335
	CE, NIST	4.1" h x 2.4" w x 1.1" d	0–500 sccm	Color Display	ea.	27336
	CE, NIST	4.1" h x 2.4" w x 1.1" d	0–500 sccm	Monochrome Display	ea.	27337



View more product details and a list of programmed gases at [www.restek.com/alicat](http://www.restek.com/alicat)

## Extend Air Canister and Valve Lifetime—RAVEqc Valves

*No Wrenches Mean  
No Overtightening or  
Cross-Threading Damage*



- Simplify your workflow—tool-free design makes it fast and easy for anyone to make consistent, quality connections.
- Check status at a glance—if the parts are connected, the valve is open; if they're apart, it's closed.
- Great for attaching air canisters to the wide variety of devices used to sample and analyze air samples.

### RAVEqc Quick-Connect Air Valves

Description	Material	Similar to Part #	cat. # / ea.
Male RAVEqc Valve to 1/4"	Stainless Steel	Entech MQT-400	27367
Male Compression Fitting	Siltek Treated	Entech MQT-400S	27368
Female RAVEqc Valve to 1/4"	Stainless Steel	Entech FQT-400	27369
Male Compression Fitting	Siltek Treated	Entech FQT-400S	27370
Male RAVEqc Valve to 1/4"	Stainless Steel	Entech MQT-T400	27371
Tube End Fitting, Extended (1.58")	Siltek Treated	Entech MQT-T400S	27372
Male RAVEqc Valve to 1/4"	Stainless Steel	Entech MQT-ST400	27373
Tube End Fitting, Short (1.23")	Siltek Treated	Entech MQT-ST400S	27374
Female RAVEqc Valve to 1/4"	Stainless Steel		27365
NPT Fitting	Siltek Treated		27366

## Remove Impurities from Your Supply Gas with Our High-Quality Filters

### Carbon Dioxide Trap

Fittings	Dimensions	cat.# / ea.
1/8" Brass	13" x 1.5" (33 x 3.8 cm)	23816
1/4" Brass	13" x 1.5" (33 x 3.8 cm)	23817
1/8" Stainless Steel	13" x 1.5" (33 x 3.8 cm)	23818
1/4" Stainless Steel	13" x 1.5" (33 x 3.8 cm)	23819



### Indicating Moisture Trap

Fittings	Dimensions	cat.# / ea.
1/8" Brass	13" x 2" (33 x 5.1 cm)	22014
1/4" Brass	13" x 2" (33 x 5.1 cm)	22015
1/8" Stainless Steel	13" x 1.5" (33 x 3.8 cm)	23806
1/4" Stainless Steel	13" x 1.5" (33 x 3.8 cm)	23807



### Indicating Oxygen Trap

Fittings	Dimensions	cat.# / ea.
1/8" Brass	10" x 1 1/4" (25.4 x 3.2 cm)	22010
1/4" Brass	10" x 1 1/4" (25.4 x 3.2 cm)	22011
1/8" Stainless Steel	13" x 1.5" (33 x 3.8 cm)	23804
1/4" Stainless Steel	13" x 1.5" (33 x 3.8 cm)	23805



### Indicating Detector Gas Purifier

Fittings	Dimensions	cat.# / ea.
1/8" Brass	13" x 1.5" (33 x 3.8 cm)	23813
1/4" Brass	13" x 1.5" (33 x 3.8 cm)	23812
1/8" Stainless Steel	13" x 1.5" (33 x 3.8 cm)	23815
1/4" Stainless Steel	13" x 1.5" (33 x 3.8 cm)	23814



### Indicating Carrier Gas Purifier

Fittings	Dimensions	cat.# / ea.
1/8" Brass	1.5" x 13"	23809
1/4" Brass	1.5" x 13"	23808
1/8" Stainless Steel	1.5" x 13"	23811
1/4" Stainless Steel	1.5" x 13"	23810



## Get a Quicker Cleanup: Resprep SLE Cartridges and 96-Well Plates

- Just load, wait 5 min, then elute.
- Removes proteins, phospholipids, and salts.



Description	qty.	cat.#
Resprep SLE cartridges, 200 mg/3 mL cartridge	50-pk.	28302
Resprep SLE cartridges, 400 mg/3 mL cartridge	50-pk.	28303
Resprep SLE 96-well plates, 200 mg/2 mL each well	1-pk.	28304
Resprep SLE 96-well plates, 400 mg/2 mL each well	1-pk.	28305

Learn more at [www.restek.com/ResprepSLE](http://www.restek.com/ResprepSLE)

## Resprep Quick-Replace SPE Vacuum Manifolds



Description	Size	qty.	cat.#
Resprep QR-12 Quick-Replace vacuum manifold	12-port	kit	28298-VM
Resprep QR-24 Quick-Replace vacuum manifold	24-port	kit	28299-VM

Order today at [www.restek.com/ResprepQR](http://www.restek.com/ResprepQR)

## Resprep Polymeric SPE Offers an Alternative to Silica-Based Sorbents.

- Silica-free, bonded polymeric material.
- High surface area.
- Stable over a wide pH range (0–14).

### Five distinct packings:

- HLB—for general purpose
- MAX—for acids
- MCX—for bases
- WAX—for strong acids
- WCX—for strong bases

**Cartridges**  
for high loading capacity  
30 mg/1 mL  
60 mg/3 mL  
200 mg or 150 mg, 6 mL  
500 mg/6 mL

**96-Well Plates**  
for high throughput  
and automation  
10 mg/2 mL  
30 mg/2 mL



Find our full selection  
of Resprep Polymeric  
SPE products at  
[www.restek.com/resprep](http://www.restek.com/resprep)

**Resprep**

## Simultaneously Remove Phospholipids and Proteins in One Resprep PLR Procedure

- Prevent signal suppression.
- No analyte-specific method development.
- Minimize contamination and maintenance.

Description	qty.	cat.#
Resprep PLR SPE Cartridge, 25 mg/1 mL cartridge	100-pk.	28300
Resprep PLR SPE 96-Well Plate, 25 mg/2 mL each well	ea.	28301

Novel co-sintered frit and  
sorbent design prevents  
channeling for high well-to-  
well flow rate consistency.

Learn more about  
Resprep PLR products at  
[www.restek.com/PLR](http://www.restek.com/PLR)

## PTFE-Free Vials and Caps Ideal for PFAS Analysis

Vials fit all 2.0 mL, 12 x 32 mm  
vial-based autosamplers.



### 2.0 mL, 9 mm Solid-Top Polyethylene Caps

Type	Cap Size	Color	qty.	cat.#
Screw-Thread	9 mm	Clear	100-pk.	23244
Screw-Thread	9 mm	Clear	1,000-pk.	23247

### Limited-Volume 2.0 mL, 9 mm Screw-Thread Polypropylene Vials



Type	Volume	Color	Size	qty.	cat.#
9 mm Screw-Thread	1.5 mL	Clear	12 x 32 mm	100-pk.	23242
9 mm Screw-Thread	1.5 mL	Clear	12 x 32 mm	1,000-pk.	23245
9 mm Screw-Thread	700 µL	Clear	12 x 32 mm	100-pk.	23243
9 mm Screw-Thread	700 µL	Clear	12 x 32 mm	1,000-pk.	23246

Analyzing PFAS? Visit [www.restek.com/PFAS](http://www.restek.com/PFAS)



## Faster Trace-Level Analysis of Acrylamide in Drinking Water and Food with Allure Acrylamide LC Columns

Unique column chemistry reliably separates acrylamide from matrix interferences, and our new format for large volume injection lets you reach sensitivity requirements without time-consuming SPE preconcentration.

### Two Column Formats for Optimal Application-Specific Performance:



- 50 x 2.1 mm for faster analysis times and fewer column changes for food and drinking water with SPE sample prep.

ID	Length	qty.	cat.#
2.1 mm	50 mm	ea.	9167552



- 150 x 3.0 mm for using large volume injection to meet ppt-level sensitivity requirements for drinking water without SPE.

ID	Length	qty.	cat.#
3.0 mm	150 mm	ea.	916756E



Trident filter and guard cartridge holders are also available at [www.restek.com/trident](http://www.restek.com/trident)

### Allure Guard Cartridges (USP L3)

Description	Particle Size	Size	qty.	cat.#
Allure Acrylamide Guard Cartridge	5 µm	10 x 2.1 mm	3-pk.	916750212
Allure AK Guard Cartridge	5 µm	10 x 4.0 mm	3-pk.	915950210
Allure Organic Acids Guard Cartridge	5 µm	10 x 2.1 mm	3-pk.	916550212
	5 µm	10 x 4.0 mm	3-pk.	916550210
	5 µm	10 x 2.1 mm	3-pk.	916050212
Allure Silica Guard Cartridge	5 µm	10 x 4.0 mm	3-pk.	916050210

## Get More Uptime with Restek's Long-Life ESI Electrode for Sciex Turbo V Sources

*Longer lifetimes mean higher sample throughput for your lab!*

- Same chromatographic performance as original equipment.
- Rugged electrode lasts longer and requires fewer replacements.

Description	qty.	Similar to Part #	cat.#
Long-Life ESI Electrode	ea.	Sciex 025392, VICI JR-55100-5	25831
ESI Electrode Gauge	ea.	Sciex 025392, VICI JR-55100-5	25832
Union for TIS Probe/APCI, 1/16"	ea.	Sciex 025348, 003403, 026626	25742
O-Ring (3/16" ID x 1/16", Viton)	ea.	Sciex 003403, 026626, 025348	25743
Spring	ea.	Sciex 026626, 025348, 003403	25744



View testing results and learn more at [www.restek.com/LongLifeESI](http://www.restek.com/LongLifeESI)

## Everything You Need to Put Together Your Own LC-MS/MS Infusion Rig

Use with any LC-MS/MS and syringe pump—you can even Tee-in your LC mobile phase for the best signal optimization.



### LC-MS/MS Infusion Kit

Description	qty.	cat.#
LC-MS/MS Infusion Kit	kit	25755



Selectivity Accelerated



## Separate a Wide Variety of Polar Analytes with a Novel Hybrid Stationary Phase

Restek's new Raptor Polar X column lets you easily analyze acidic, basic, and neutral polar compounds without time-consuming derivatization or complex ion pairing. This unique hybrid phase switches between HILIC and ion-exchange retention modes with simple mobile phase changes and short equilibration times, making it ideal for a wide range of polar analytes, especially when coupled with mass spectrometry.

### Raptor Polar X LC Columns

ID	Length	qty.	cat.#
<b>2.7 µm Particles</b>			
2.1 mm	30 mm	ea.	9311A32
	50 mm	ea.	9311A52
	100 mm	ea.	9311A12



### Help Protect Your Investment and Further Extend the Life of Our Already-Rugged LC Columns with Raptor EXP Guard Column Cartridges and EXP Direct Connect Holder

Description	Particle Size	Size	qty.	cat.#
Raptor Polar X EXP Guard Column Cartridge	2.7 µm	5 x 2.1 mm	3-pk.	9311A0252
EXP In-Line Holder for EXP Guard Cartridges (includes hex-head fittings & 2 ferrules)			ea.	25751
EXP Direct Connect Holder for EXP Guard Cartridges (includes hex-head fitting & 2 ferrules)			ea.	25808

Hybrid Ferrule U.S. Patent No. 8201854, EXP Holders U.S. Patent No. 8696902, EXP2 Wrench U.S. Patent No. D766055. Other U.S. and Foreign Patents Pending. The EXP, Free-Turn, and the Opti- prefix are registered trademarks of Optimize Technologies, Inc.



### LC Passivation Solution

Description	Conc. in Solvent	cat.#
Methylenediphosphonic Acid (Medronic Acid)	1,760 µg/mL, Methanol (HPLC grade)/Water (50:50), 1mL/ampul	32475 (ea.)

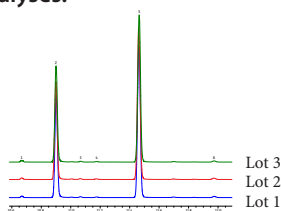




## The Next Level of True Blue Reproducibility and Performance

- Reproducibility—unbeatable manufacturing controls and QC testing for superior reliability across compound classes.
- Productivity—unparalleled cleanliness for maximized GC uptime and lab throughput.
- Deactivation—unbelievably low breakdown for accurate and precise low-level GC analyses.

*You can expect the same great results from one lot to the next with Topaz GC inlet liners*



### Featured Topaz Liners:

#### Agilent

Split Injection: 23305 | 23300  
Splitless Injection: 23303 | 23302

#### PerkinElmer

Split Injection: 23450 | 23449  
Splitless Injection: 23451

#### Sciex/Bruker/Varian

Split Injection: 23328  
Splitless Injection: 23332 | 23331

#### Shimadzu

Split Injection: 23319 | 23320  
Splitless Injection: 23336 | 23322

#### Thermo Scientific

Split Injection: 23444 | 23267  
Splitless Injection: 23447 | 23446

Learn more and find our full selection at [www.restek.com/topaz](http://www.restek.com/topaz)



## Dynamic Duo

### Restek's Leak Detector and ProFLOW 6000 Flowmeter

#### An Unbeatable Combination

Protect your instrument and improve data quality with this powerful pair from Restek. Checking for leaks and verifying flows before you start helps you avoid costly problems later.

Description	qty.	cat.#
Dynamic Duo Combo Pack (Restek Leak Detector and ProFLOW 6000 Flowmeter)	kit	22654
<b>Related Products and Accessories</b>		
Restek Electronic Leak Detector (includes: carrying case, universal AC power adaptor [U.S., UK, Europe, Australia, Japan], 6-ft USB charging cable)	ea.	28500
Small Probe Adaptor for Leak Detector	ea.	22658
Restek ProFLOW 6000 Electronic Flowmeter with Hard-Sided Carrying Case	ea.	22656
Soft-Sided Storage Case for Leak Detector or ProFLOW 6000 Flowmeter	ea.	22657

Learn more at [www.restek.com/dynamic-duo](http://www.restek.com/dynamic-duo)

## NEW Siltek-Treated MXT Guard/Retention Gap/Transfer Lines

Ideal for most high-temperature applications and solvents



Description	ID	Length	qty.	cat.#
Siltek-Treated MXT Guard Column	0.28 mm	5 m	ea.	70026
	0.28 mm	10 m	ea.	70036
	0.28 mm	15 m	ea.	70056
	0.28 mm	30 m	ea.	70066
	0.53 mm	5 m	ea.	70028
	0.53 mm	10 m	ea.	70038
	0.53 mm	15 m	ea.	70058
	0.53 mm	30 m	ea.	70068

## Gas Sampling Bags

### Cost-Effective Alternatives for Air Sampling

- Ideal for whole air sampling at ppb-ppm levels.
- Tedlar, ALTEF, and multi-layer foil bags in a wide range of sizes.
- Extensive line of sampling accessories and replacement parts.

[www.restek.com/air](http://www.restek.com/air)





# Ensure Accurate, Reliable GC Analysis of Triglycerides in Edible Oils

- High-temperature stability ensures consistent results and longer column lifetimes.
- Separate and quantify critical triglycerides without interference from column bleed.
- Observe even underivatized mono- and diglycerides.



Labs on the forefront of food quality and authenticity require analytical columns that reliably generate accurate, precise data. With best-in-class thermal stability up to 370 °C, Rxi-65TG columns are the top-performing column for the analysis of triglycerides in edible oils.

## Rxi-65TG Columns (fused silica)

High-polarity Crossbond phase

ID	df	Length	Temp. Limits	cat.#/ea.
0.25 mm	0.10 µm	15 m	40 to 370 °C	17105
	0.10 µm	25 m	40 to 370 °C	17107
	0.10 µm	30 m	40 to 370 °C	17108
0.32 mm	0.10 µm	15 m	40 to 370 °C	17106
	0.10 µm	25 m	40 to 370 °C	17110
	0.10 µm	30 m	40 to 370 °C	17109

# Accurate, Reliable FAMES Analysis

- Optimized stationary phase selectivity ensures accurate quantification of critical *cis/trans* FAME isomers.
- Application-specific QC test guarantees consistent, reliable performance for AOAC 996.06 and AOCS Ce 1j-07 methods.
- Excellent sample capacity; no peak distortion means easy, accurate peak integration.

## Rt-2560 Column (fused silica)

highly polar phase; biscyanopropyl polysiloxane—not bonded

ID	df	Length	Temp. Limits	qty.	cat.#
0.25 mm	0.20 µm	100 m*	20 to 250 °C	ea.	13198

\*Nominal length = 100 m. The actual length is 110 m, which is equivalent to the length of the previous Rt-2560 column (cat.# 13199).



## High-Temperature EI Filament

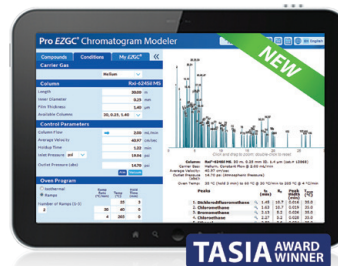
for Agilent 5972, 5973, 5975, or 5977 GC-MS

- Every filament is subjected to QC tests, including heat, electrical current, and resistance.
- Samples from each lot are installed in an MSD for *in situ* testing.



Instrument	qty.	Similar to Part #	cat.#
for Agilent 5972, 5973, 5975, or 5977 GC-MS	ea.	Agilent G3170-60050 (obsolete), G7005-60061	23099

Mass spec, FID, ECD — [www.restek.com/GCacc](http://www.restek.com/GCacc) has the replacement parts your detectors need.



Increase your laboratory's productivity by using Restek's free, easy-to-use online Pro EZGC chromatogram modeler; develop new methods and optimize existing ones in minutes directly from your desk.

[www.restek.com/proezgc](http://www.restek.com/proezgc)



## Rxi-5Sil MS Columns—Rugged, Low-Bleed Performance for Challenging GC-MS Work

Excellent inertness for active compounds. Ideal for semivolatiles, PAHs, chlorinated hydrocarbons, phthalates, phenols, amines, organochlorine pesticides, organophosphorus pesticides, drugs, solvent impurities, and hydrocarbons.

### Rxi-5Sil MS Columns (fused silica)

low-polarity phase; Crossbond 1,4-bis(dimethylsiloxy)phenylene dimethyl polysiloxane

ID	df	Length	Temp. Limits	Modification	qty.	Similar to Part #	cat.#
0.18 mm	0.18 µm	20 m	-60 to 320/350 °C	—	ea.	Agilent 121-5522; Phenomenex TFD-G010-08	43602
	0.25 µm	15 m	-60 to 320/350 °C	—	ea.	Agilent 122-5512; Grace 15801, 5122085; Phenomenex TEG-G010-11	13620
0.25 mm	0.25 µm	30 m	-60 to 320/350 °C	—	ea.	Agilent 122-5532, 122-5631; Phenomenex THG-G010-11	13623
	0.50 µm	30 m	-60 to 320/350 °C	—	ea.	Agilent 122-5536; Phenomenex THG-G010-17	13638
0.32 mm	0.50 µm	30 m	-60 to 320/350 °C	—	ea.	Agilent 123-5536; Phenomenex THM-G010-17	13639
0.25 mm	0.25 µm	30 m	-60 to 320/350 °C	w/5 m Integra-Guard Column	ea.	Agilent 122-5631G5; Phenomenex THG-G010-11-GGA	13623-124
	0.50 µm	30 m	-60 to 320/350 °C	w/5 m Integra-Guard Column	ea.		13638-124

Get 6 columns for the price of 5!

Call 800-356-1688, ext. 4, or your Restek representative for details!

Put Rxi columns to work in your lab. Visit [www.restek.com/rxi](http://www.restek.com/rxi) and order yours today.

## Our Selection of Cannabis Standards Keeps Expanding Target Mycotoxins in Cannabis with Our New Ochratoxin A & Aflatoxins Standards

Mycotoxins are toxic secondary metabolite compounds produced by mold or fungi. Due to the toxicity of certain mycotoxins that can be found on cannabis plants, there is a growing need to detect their presence in both raw plant materials and finished cannabis products.

Restek now offers two new mycotoxin certified reference standards (CRMs): Ochratoxin A and Aflatoxins (B1, B2, G1, G2).

These new standards enable labs to expand their cannabis analyses with a Restek solution when coupled with our high-throughput Raptor ARC-18 (cat.# 9314A12) LC column.



### Ochratoxin A Standard

Conc. in Solvent	cat.#
10 µg/mL, Acetonitrile, 1 mL/ampul	34122 (ea.)

### Aflatoxins (B1, B2, G1, G2) Standard (4 components)

Conc. in Solvent	cat.#
10 µg/mL, Acetonitrile, 1 mL/ampul	34121 (ea.)

For more cannabis reference standards, Raptor LC columns, sample preparation products, and the expert consultation your cannabis lab needs, turn to [www.restek.com/cannabis](http://www.restek.com/cannabis)



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

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Lit. Cat.# GNE53318-UNV