

Organophosphorus Pesticides Analysis

Rtx®-OPPesticides/Rtx®-OPPesticides2 (proprietary Crossbond® phases)

- Application-specific columns for organophosphorus pesticides; best column combination for US EPA Method 8141A.
- Low bleed—ideal for GC/FPD, GC/NPD, or GC/MS analyses.
- Stable to 330°C.

restek
innovation!

- Better separations
- Faster analysis

Using sophisticated computer modeling software, we created two stationary phases for separating the 55 organophosphorus pesticides (OPP) listed in EPA Method 8141A. Separation is improved, and analysis time is significantly reduced, compared to other columns. The extended upper temperature limit of these phases (330°C) allows analysts to bake out high molecular weight contamination typically associated with pesticide samples. The low bleed columns are a perfect match for sensitive detection systems.

Rtx®-OPPesticides Columns (fused silica)

ID	df (μm)	temp. limits	30-Meter
0.32mm	0.50	-20 to 310/330°C	11239
0.53mm	0.83	-20 to 310/330°C	11240

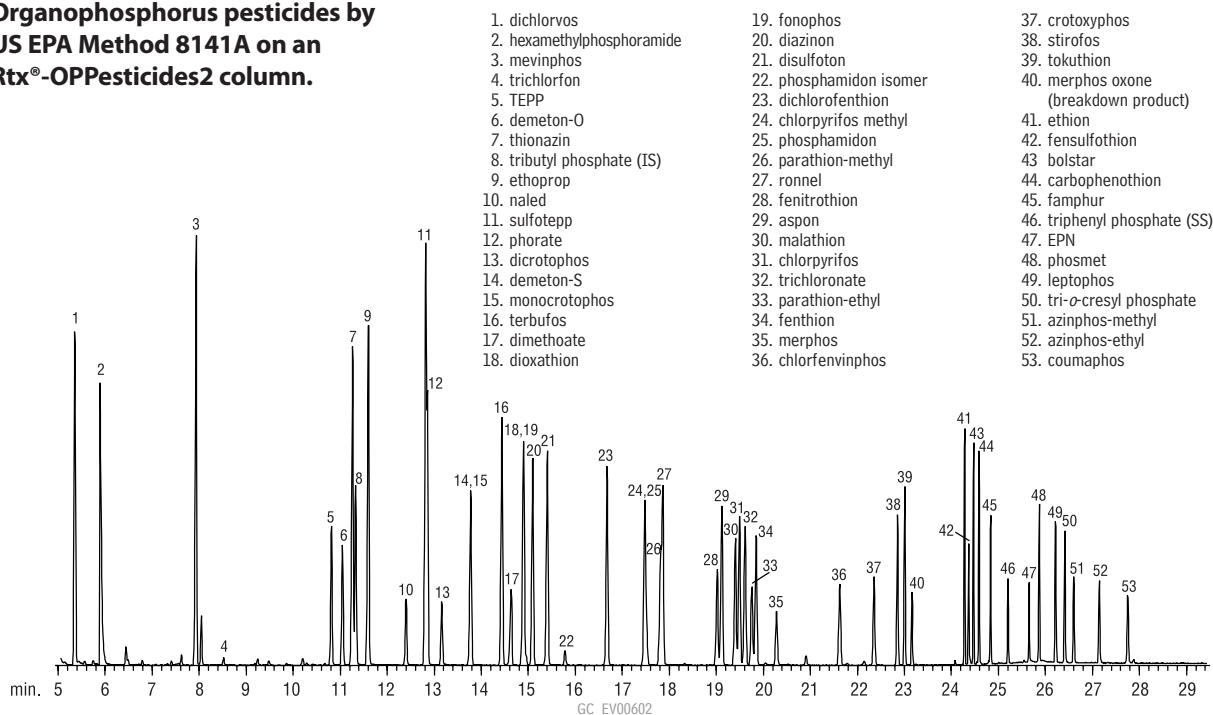
Rtx®-OPPesticides2 Columns (fused silica)

ID	df (μm)	temp. limits	20-Meter	30-Meter
0.18mm	0.20	-20 to 310/330°C	11244	
0.25mm	0.25	-20 to 310/330°C		11243
0.32mm	0.32	-20 to 310/330°C		11241
0.53mm	0.50	-20 to 310/330°C		11242

did you **know?**

These application-specific Restek columns give fast, efficient analysis of the OPPs listed in EPA Method 8141A

Organophosphorus pesticides by US EPA Method 8141A on an Rtx®-OPPesticides2 column.



- dichlorvos
- hexamethylphosphoramide
- mevinphos
- trichlorfon
- TEPP
- demeton-O
- thionazin
- tributyl phosphate (IS)
- ethoprop
- naled
- sulfotepp
- phorate
- dicrotophos
- demeton-S
- monocrotophos
- terbufos
- dimethoate
- dioxathion
- fonophos
- diazinon
- disulfoton
- phosphamidon isomer
- dichlorofention
- chlorpyrifos methyl
- phosphamidon
- parathion-methyl
- ronnel
- fenitrothion
- aspon
- malathion
- chlorpyrifos
- trichloronate
- parathion-ethyl
- fenthion
- merphos
- chlorfenvinphos
- crotoxyphos
- stirofos
- tokuthion
- merphos oxone (breakdown product)
- ethion
- fensulfotthion
- bolstar
- carbofention
- famphur
- triphenyl phosphate (SS)
- EPN
- phosmet
- leptophos
- tri-o-cresyl phosphate
- azinphos-methyl
- azinphos-ethyl
- coumaphos

Column: Rtx®-OPPesticides2, 30m, 0.25mm ID, 0.25μm (cat.# 11243)
Sample: US EPA Method 8141A Custom Standard Mix 1μL 100ppm (100ng on column)

Triphenylphosphate Standard (cat.# 32281)
Tributylphosphate Standard (cat.# 32280)
8140/8141 OP Pesticides Calibration Mix A (cat.# 32277)
8141 OP Pesticides Calibration Mix B (cat.# 32278)

Inj.: Custom Mixes: Call Restek for Information
1.0μL splitless (hold 0.4 min.), 4mm double
goose-neck inlet liner (cat.# 20785)

Inj. temp.: 250°C
Carrier gas: helium, constant flow
Flow rate: 1.0mL/min.
Oven temp.: 80°C (hold 0.5 min.) to 140°C @ 20°C/min.
to 210°C @ 4°C/min. (hold 1 min.) to
280°C @ 30°C (hold 5 min.)

Det: MS
Transfer line temp.: 280°C
Scan range: 35-400amu
Ionization: EI