

Agilent Polymeric SPE

Reversed Phase Polymeric SPE

Bond Elut PPL

- Modified styrene-divinylbenzene polymer
- Large particle size allows fast extraction speeds
- High surface area and capacity for polar analytes

Bond Elut PPL is a styrene-divinylbenzene (SDVB) polymer that is modified with a proprietary surface. PPL will retain even the most polar classes of analytes, including phenols. The large particle size allows ease-of-flow for viscous or particulate-rich water samples, while the high surface area and strong hydrophobicity ensure reproducible extractions with high recoveries upon elution.

Bond Elut PPL is suitable for methods such as the US EPA Method 528, *Determination of Phenols in Drinking Water by SPE and Capillary GC/MS*.

Bond Elut PPL

Description	Unit	Part No.
Straight Barrel Cartridges		
50 mg, 1 mL	100/pk	12105002
100 mg, 1 mL	100/pk	12105003
100 mg, 3 mL	50/pk	12105004
200 mg, 3 mL	50/pk	12105005
500 mg, 3 mL	50/pk	12105006
500 mg, 6 mL	30/pk	12255001
1 g, 3 mL	50/pk	12102148
1 g, 6 mL	30/pk	12255002
5 g, 60 mL	16/pk	12256087



Typical Matrices

Water sources, biological fluids

Primary Extraction Mechanism

Nonpolar, electrostatic

Compound Types

Polar compounds, phenols



QuEChERS AOAC 2007.01 extraction kit, 5982-5755



Ceramic homogenizer for 50 mL tubes, 5982-9313

QuEChERS Extraction Kits

Step 1: Extraction

- Available with or without 50 mL centrifuge tubes and caps
- Available with or without ceramic homogenizers, (CH)
- Include MgSO_4 , NaCl, or other salts for buffering, preweighed in anhydrous packets

Choose the extraction salt packet based on your method of analysis, AOAC or EN. The buffered extraction salts are amenable for more labile pesticides. Adding solvent and then salts to a comminuted fruit or vegetable sample (10 or 15 g) enables you to extract the pesticides of interest into the organic layer. Agilent prepackages its QuEChERS salts and buffers in anhydrous packages. This allows you to add them after adding your solvent to the sample, as specified in QuEChERS methodologies.

In the table below, the CH products contain the appropriately sized ceramic homogenizers for those particular kits.

For more information on ceramic homogenizers, see Page 85, 92

QuEChERS Extraction Kits

Method	Buffered	Contents	Ceramic Homogenizers	With 50 mL Tubes 50/pk	Packets Only	
					50/pk	200/pk
AOAC 2007.01	Yes	6 g MgSO_4 ; 1.5 g NaAcetate	Yes	5982-5755CH		
			No	5982-5755	5982-6755	5982-7755
Original (10 g samples)	No	4 g MgSO_4 ; 1 g NaCl	Yes	5982-5550CH		
			No	5982-5550	5982-6550	5982-7550
Original (15 g samples)	No	6 g MgSO_4 ; 1.5 g NaCl	Yes	5982-5555CH		
			No	5982-5555	5982-6555	5982-7555
EN 15662	Yes	4 g MgSO_4 ; 1 g NaCl; 1 g NaCitrate; 0.5 g disodium citrate sesquihydrate	Yes	5982-5650CH		
			No	5982-5650	5982-6650	5982-7650
Acrylamides	No	4 g MgSO_4 ; 0.5 g NaCl	No	5982-5850		
Veterinary Drugs	No	4 g Na_2SO_4 ; 1 g NaCl	No	5982-0032		



QuEChERS Dispersive Kits: Fruits and Vegetables

Kit	Size	Unit	AOAC 2007.01 Method	European Method EN 15662
			Kit Contents Part No.	Kit Contents Part No.
Pigmented fruits and vegetables: Removes polar organic acids, some sugars and lipids, and carotenoids and chlorophyll; not for use with planar pesticides	2 mL	100/pk	50 mg PSA	25 mg PSA
			50 mg GCB	2.5 mg GCB
			150 mg MgSO ₄	150 mg MgSO ₄
			5982-5222	5982-5221
			5982-5222CH	5982-5221CH
	15 mL	50/pk	400 mg PSA	150 mg PSA
			400 mg GCB	15 mg GCB
			1200 mg MgSO ₄	885 mg MgSO ₄
			5982-5258	5982-5256
			5982-5258CH	5982-5256CH
Highly pigmented fruits and vegetables: Removes polar organic acids, some sugars and lipids, plus high levels of carotenoids and chlorophyll; not for use with planar pesticides	2 mL	100/pk		25 mg PSA
				7.5 mg GCB
				150 mg MgSO ₄
				5982-5321
				5982-5321CH
	15 mL	50/pk		150 mg PSA
				45 mg GCB
				855 mg MgSO ₄
				5982-5356
				5982-5356CH
Fruits and vegetables with pigments and fats: Removes polar organic acids, some sugars and lipids, plus carotenoids and chlorophyll; not for use with planar pesticides	2 mL	100/pk	50 mg PSA	
			50 mg GCB	
			150 mg MgSO ₄	
			50 mg C18EC	
			5982-5421	
			5982-5421CH	
	15 mL	50/pk	400 mg PSA	
			400 mg GCB	
			1200 mg MgSO ₄	
			400 mg C18EC	
			5982-5456	
			5982-5456CH	

Part numbers ending in CH indicate tubes containing ceramic homogenizers.

(Continued)

QuEChERS Dispersive Kits: Other Food Methods

Kit	Size	Unit	AOAC 2007.01 Method	European Method EN 15662
			Kit Contents Part No.	Kit Contents Part No.
Drug Residues in Meat Removes biological matrix interferences, including hydrophobic substances (fats, lipids) and proteins	2 mL	100/pk	25 mg C18	
			150 mg MgSO ₄	
			5982-4921	
			5982-4921CH	
	15 mL	50/pk	150 mg C18	
			900 mg MgSO ₄	
			5982-4956	
			5982-4956CH	
Universal Removes all matrix interfering materials, including polar organic acids, lipids, sugars, proteins, carotenoids, and chlorophyll	2 mL	100/pk	50 mg PSA	
			50 mg C18	
			7.5 mg GCB	
			150 mg MgSO ₄	
	15 mL	50/pk	5982-0028	
			5982-0028CH	
			400mg PSA	
			400 mg C18	
			45 mg GCB	
			1200 MgSO ₄	
			5982-0029	
			5982-0029CH	
Vet Drug in Food Removes matrix interferences, such as polar organic salts, sugars, lipids, and proteins	15 mL	50/pk	50 mg PSA	
			150 mg C18EC	
			900 mg Na ₂ SO ₄	
			5982-4950	

Part numbers ending in CH indicate tubes containing ceramic homogenizers.



TIPS AND TOOLS

View the advanced concepts surrounding the QuEChERS method at www.agilent.com/chem/QuEChERSvideo



QuEChERS Ceramic Homogenizers

Ceramic homogenizers increase your overall lab productivity and give you greater confidence in your results.

The same great ceramic homogenizers available in our QuEChERS kits are also available to bulk buy, providing excellent grinding of the samples. They make analyte extraction easier by:

- Increasing extraction efficiency
- Maintaining high, reproducible extractions
- Minimizing variance between technicians
- Breaking up salt agglomerates and maintaining a consistent grinding of homogenizing material



Ceramic homogenizer for 50 mL tubes, 5982-9313

QuEChERS Ceramic Homogenizers

Description	Unit	Part No.
Ceramic homogenizer for 2 mL tubes	100/pk	5982-9311
Ceramic homogenizer for 15 mL tubes	100/pk	5982-9312
Ceramic homogenizer for 50 mL tubes	100/pk	5982-9313