

■ Certificate of Analysis ■

Product: Custom PCB Congeners in Soil
Catalog Number: 093
Lot No: 09141701
Certificate Issue Date: December 5, 2017
Expiration Date: October 13, 2026
Revision Number: 1

CERTIFICATION

Parameter	CAS No.	Certified Value ¹	Uncertainty ²	QC Performance Acceptance Limits ³			NIST Traceability ⁴	
		µg/kg	%	µg/kg			SRM#	Recovery %
2,4,4'-Trichlorobiphenyl	7012-37-5	259	0.812	103	-	375	NA	NA
2,2',5,5'-Tetrachlorobiphenyl	35693-99-3	201	0.812	80.4	-	291	NA	NA
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	445	0.812	178	-	645	NA	NA
3,4,4',5-Tetrachlorobiphenyl	70362-50-4	201	0.812	80.5	-	292	NA	NA
2,2',4,5,5'-Pentachlorobiphenyl	37680-73-2	265	0.812	106	-	384	NA	NA
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	243	0.812	97.4	-	353	NA	NA
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	208	0.812	83.2	-	302	NA	NA
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	302	0.812	121	-	438	NA	NA
2',3,4,4',5-Pentachlorobiphenyl	65510-44-3	232	0.812	93.0	-	337	NA	NA
3,3',4,4',5-Pentachlorobiphenyl	57465-28-8	249	0.812	100	-	361	NA	NA
2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	265	0.812	106	-	384	NA	NA
2,2',4,4',5,5'-Hexachlorobiphenyl	35065-27-1	499	0.812	200	-	724	NA	NA
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	206	0.812	82.2	-	298	NA	NA
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	253	0.812	101	-	367	NA	NA
2,3',4,4',5,5'-Hexachlorobiphenyl	52663-72-6	277	0.812	111	-	401	NA	NA
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	251	0.812	101	-	364	NA	NA
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	240	0.812	96.1	-	348	NA	NA
2,3,3',4,4',5,5'-Heptachlorobiphenyl	39635-31-9	214	0.812	85.5	-	310	NA	NA

Matrix: Soil

Density: NA

Storage: 4±2°C

Manufacturing Notes: This standard is packaged in flame sealed ampules each containing 15 ± 0.1 grams of soil. Using a smaller sample size than 15 grams may invalidate the assigned value and/or uncertainty shown above. Although this soil standard has been thoroughly blended prior to shipping it is necessary to homogenize this sample prior to opening. Carefully snap the top off the ampule in a fume hood to avoid inhalation of dust. Transfer the entire contents of the ampule to the extraction vessel. Use a weight of 15 grams for calculation purposes. Prepare and analyze the soil standard according to your normal analytical procedures.

1. The Certified Values are equal to 100% of the "made to" values as determined by volumetric and/or gravimetric measurements made during the manufacture of this product.

2. The stated Uncertainty is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and (as noted) internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The QC Performance Acceptance Limits were derived from USEPA Method 1668C Table 6. These limits represent the recommended OPR recoveries as defined in USEPA Method 1668C.

4. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. Traceability Recovery % = [(% recovery certified standard)/(% recovery NIST SRM)]*100. The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.



Reference Materials

▪ Certificate of Analysis ▪

Product: Custom PCB Congeners in Soil
Catalog Number: 093
Lot No: 09141701
Certificate Issue Date: December 5, 2017
Expiration Date: October 13, 2026
Revision Number: 1

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer:
Brian Miller

Brian Miller

Quality Officer:
David Kilhefner

David D. Kilhefner

ISO/IEC GUIDE 34:2009

ISO/IEC 17025:2005



Page 2 of 2 Lot:09141701

16341 Table Mountain Pkwy • Golden, CO 80403 • T: 800.372.0122 • 303.431.8454 • www.eraqc.com