

MODERNWATER

EnviroGard®

PCB Soil and Wipe Test System

Envirogard® is a rapid field enzyme immunoassay method for the analysis of soil remediation, assessment and industrial testing. It uses a coated tube technology to detect the analyte of concern.

Test result type

- Semi-quantitative or qualitative data
- Knowledge of specific aroclor(s) present will aid accuracy

Samples per kit

- Dependent on batch size and number of detection levels
- Each sample can be tested one at a time or in batches of two to ten samples

Assay range

- Soil: 0.5 ppm to 500 ppm with dilutions
- Wipes: 5.0 ug/100cm² to 5000 ug/100cm² with dilutions

Sampling preparation

- Soil samples require prior extraction using the sample extraction kit (sold separately)
- The sample extraction kit provides materials for 12 soil sample extractions with methanol

Sampling time

- Approximately two minutes per sample plus assay run time of approximately 30 minutes

- Convenient and rapid testing in the field or laboratory
- Tests up to 10 samples at once
- Two detection levels of your choice are provided with each sample
- High level of accuracy
- EPA SW-846 Method #4020



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Specificity

Minimum Aroclor detection levels for the Envirogard® PCB test are as follows:

AROCLOR		
Compound	Soil (PPM)	Wipe (ug/100cm ²)
Aroclor 1260	0.5	5.0
Aroclor 1254	0.5	5.0
Aroclor 1248	1.0	10.0
Aroclor 1242	2.0	20.0
Aroclor 1232	4.0	40.0
Aroclor 1016	4.0	40.0

Basic Test Procedure

- Transfer soil or wipe to extraction jar
- Cap and shake for one minute
- Filter extracted sample
- Pipette and dilute samples with dilution ampule
- Transfer 1 ml of buffer to glass buffer tubes
- Pipette and transfer sample to buffer tubes
- Fit antibody coated tubes on buffer tubes; invert and mix; return to antibody coated tube
- Incubate for 10 minutes
- Connect antibody coated and conjugate tubes; invert and mix, return to antibody coated tube
- Incubate five minutes
- Wash antibody coated tubes vigorously four times
- Using a repeater pipette at setting two and 5 mL tip, transfer 200 uL substrate A to each tube
- Add 200 uL substrate B to each tube and mix
- Incubate for 2.5 minutes
- Add 200 uL STOP to each tube
- Read tubes in photometer. Record data



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Test kit components

- 48 antibody coated tubes and PCB enzyme conjugate vials
- 48 glass buffer tubes
- Substrate and stop solution reagents
- PCB standard
- Pipette tips and bulb pipettes
- Buffer
- Amber vials
- Wash solution
- 12 ampule crackers

Storage & precautions

- Shelf life is typically one year from date of manufacture, with specific kit expiration date information provided on product packaging
- Store at ambient temperature 64° to 81°F (18° to 27°C)
- Kits must be brought to 64° to 81°F (18° to 27°C) before use
- Do not freeze test kit components

Required test materials

Part

- PCB EnviroGard 12T accessory kit 6050400
- PCB EnviroGard 12T accessory kit 6997020 rental (Includes all equipment required to operate test and interpret results)

Required test equipment

- PCB EnviroGard 12T soil test kit 7020301
- PCB soil sample extraction kit 7020301EB
- PCB wipe sample extraction kit 7020301WA

Other recommended materials

- Absorbent paper
- Liquid waste container
- Disposable gloves
- Marker pen
- Liquid and solid waste containers