

C11, C12, C13 TOXICOLOGY **March 2026**

1.0 Sample Reception

- 1.1 All breakages and shortages must be reported within 24 hours of sample receipt.
- 1.2 Samples should be stored in the dark at $4 \pm 2^{\circ}\text{C}$ upon receipt. Samples are stable for the duration of the study.
- 1.3 Check that all the parameters for which you are registered are correctly identified in the PTC portal.
- 1.4 Inquiries regarding samples and their shipment may be directed to:

PT Non-conformances
 Information and Quality Management
 Environment and Climate Change Canada
 fax: 905-336-8914
 email: ec.ptnc.ec@canada.ca

cc: PT Canada Program Officer
 email: programofficer@PTcanada.org
 cc: Nadine Lewis, PTC Executive Director
 email: nlewis@PTcanada.org

Inquiries should be made by email. When reporting damage upon receipt, please provide a picture of the damaged samples. Please include your PT Canada laboratory number on all correspondence.

2.0 Sample Analysis

- 2.1 The reference toxicants have been prepared using the following toxicants:
 - Trout LC50 (96 h) and microtox IC50 (15 min) – phenol.
 - Daphnia LC50 (48 h) – sodium chloride.
- 2.2 The highest concentration (ml of sample added per liter of test solution) and applied dilution factor for each sample should be as shown.
- 2.3 For each sample prepare at least five (5) test solutions in a geometric series using the dilution factor shown below.

Parameter	ID	Highest Conc. (mL/L)	Dilution Factor
Trout LC50 (96 h)	C11-1	9	0.7
	C11-2	5	0.7
	C11-3	8	0.7
	C11-4	12	0.7
Daphnia LC50 (48 h)	C12-1	120	0.5
	C12-2	150	0.5
	C12-3	200	0.5
	C12-4	140	0.5
Microtox IC50 (15 min)	C13-1	40	0.5

Parameter	ID	Highest Conc. (mL/L)	Dilution Factor
	C13-2	70	0.5
	C13-3	30	0.5
	C13-4	40	0.5

- 2.5 For Microtox, the top concentration is prepared in a volumetric flask with dilution water (i.e. deionized water). This solution is then pipetted into the cuvettes as the samples are diluted with the appropriate diluent using a 0.5 dilution factor, as per standard test procedure.
- 2.6 Use volumetric labware and laboratory dilution water to prepare the dilution series for Daphnia and rainbow trout.
- 2.7 Proceed with testing using the routine analytical method identified in your recent application to the PTC program.
- 2.8 For trout and daphnia, calculate the results using the preferred statistical method for the data as determined by following the flowsheet in Figure 4 of the Environment Canada test method EPS 1/RM/46. For microtox calculate the IC50 using the Microbics computer program.

3.0 Reporting Results

- 3.1 Report data in the PTC portal using the units indicated.

4.0 Safety

- 4.1 The PT samples are designed for use by laboratory professionals familiar with environmental samples and potentially hazardous materials.