



# Heterotrophic Bacteria

*Environmental water*

## Test Description

A water sample is collected for estimating the number of live, culturable heterotrophic bacteria in water and for measuring changes in swimming pools, spas, and bathing places<sup>1</sup>. Addition of sodium thiosulfate to the sample neutralizes any residual chlorine to reduce the potential bactericidal activity during specimen transport. One milliliter of water sample is plated in duplicate, using the pour plate method with Standard Methods Agar, incubated at 35°C for 48 hours. Colonies are counted and results are reported as colony forming units per milliliter (CFU/ml).

## Acceptable Specimens: collection guide and transport conditions

Heterotrophic bacteria in water

- Temperature: Refrigerated (2-8 °C)
- Maximum Submission Delay: Specimen must be received as soon as possible after collection
- Container: Sterile 125-ml Nalgene bottle with wide-mouth and screw-capped lid containing 3 drops of sterile 0.1 N sodium thiosulfate

## Laboratory Unit

Bacteriology

## Methodology

Culture

---

<sup>1</sup> Standard Methods for the Examination of Water and Wastewater. 23<sup>rd</sup> edition. 2017. SM 9215 A.1.  
*THIS DOCUMENT IS TO BE REGARDED AS THE OFFICIAL ALLEGHENY COUNTY PUBLIC HEALTH LABORATORY TEST LIST. IT IS TO BE MAINTAINED UNDER CHANGE CONTROL BY THE LABORATORY DIRECTOR OR THE LIMS SPECIALIST. Last Updated: 7/26/2024*



## ALLEGHENY COUNTY PUBLIC HEALTH LABORATORY

3901 Penn Ave, Building 8  
Pittsburgh, PA 15224  
412.578.8070

### **Test Request**

Coming Soon

### **Possible Results:**

- < 1.0 CFU/ml
- Quantity of colony forming units/ ml (CFU/ml)

### **Reference Range**

< 1.0 CFU/ml

### **Rejection Criteria**

- Unreadable/missing/insufficient labeling
- Wrong specimen collection kit
- Expired specimen collection kit
- Storage/transportation requirements not met
- Leaking or contaminated specimen transport container
- Quantity not sufficient
- Specimen too old
  - Collected in acceptable kit but did not submit within appropriate time window
- Improperly collected specimen
- Specimen not inoculated/ no specimen submitted

### **Result Reported**

24-48 Hours

### **LOINC Code(s)**

14081-5