

## SOP#BIO-001 Colilert-24hr

1. Verb Base Form
2. Verb Base Form
3. Verb Base Form
4. Verb Base Form
5. Noun
6. Noun
7. Noun
8. Noun
9. Number
10. Adjective
11. Noun
12. Adverb
13. Noun
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15. Verb Base Form
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20. Verb Present Ends In Ing
21. Verb Present Ends In Ing
22. Verb Present Ends In Ing
23. Verb Base Form

24. Verb Base Form
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26. Noun
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SOP#BIO-001 Colilert-24hr

Categories: Biology

Subject: Colilert

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Last Revision By: Ursula Gray

SOP Designation: SOP#BIO 001

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. Definitions:

a. CD-Coliform Duplicate-One Distribution sample that is replicated during collection.

b. Blank-(Noun) collected to be run with samples collected on the same day.

c. Total coliform

d. E. coli-Escheria coli,

e. CFU-Colony Forming Unit

f. PPE-Personal Protection Noun

4. Health and Safety Warning:

a. Utilize all Microbiological Safety procedures:

b. Wear proper PPE-(Noun), safety glasses, lab coat and close toe, upper leather shoes, face coverings

c. Disinfect (Noun) counter tops

d. No Verb Present ends in ING, Verb Present ends in ING, or Verb Present ends in ING in the lab working area

e. Autoclave all bacterial waste

f. (Verb Base Form) hands with germicidal soap

g. (Verb Base Form) lab coats and gloves when exiting lab

5. Cautions

. Do not (\_\_\_\_\_Verb Base Form\_\_\_\_\_) open (\_\_\_\_\_Noun\_\_\_\_\_) pack to sample bottle when planting

B. Do not place (\_\_\_\_\_Noun\_\_\_\_\_) to sample on countertop

C. Samples should be held at (>\_\_\_\_\_Number\_\_\_\_\_ and <\_\_\_\_\_Number\_\_\_\_\_) no longer than \_\_\_\_\_Number\_\_\_\_\_ hours from time of collection to analysis.

D. Samples are (\_\_\_\_\_Adjective\_\_\_\_\_), if held longer than \_\_\_\_\_Number\_\_\_\_\_ hours.

E. Frozen (\_\_\_\_\_Noun\_\_\_\_\_) are invalid.

F. Coliform (\_\_\_\_\_Adjective\_\_\_\_\_) should be collected with each set of Distribution samples per Investigator.

G. HPC must be performed on samples with a chlorine residual less than (\_\_\_\_\_Number\_\_\_\_\_) mg/L.

H. Raw water samples must be refrigerated no longer than (\_\_\_\_\_Number\_\_\_\_\_) hours and analyzed within \_\_\_\_\_Number\_\_\_\_\_ hours.

I. (\_\_\_\_\_Adverb\_\_\_\_\_) check for fluorescence of positive samples, using the manufacturer comparator.

J. Samples should be mixed uniformly

K. Positive, distribution samples should be resampled within (\_\_\_\_\_Number\_\_\_\_\_) hrs. of discovery.

## 6. Interferences:

A. Excessive \_\_\_\_\_Noun\_\_\_\_\_ produces a blue flash when Colilert snap pack is introduced, (\_\_\_\_\_Adjective\_\_\_\_\_) sample.

## 7. Personnel Qualifications:

Minimum

of three months training in microbiological analysis of drinking \_\_\_\_\_ Noun acceptable to the State (or EPA) and 30 \_\_\_\_\_ Noun on the job training under an experienced analyst.

8. \_\_\_\_\_ Noun and Supplies

A. Incubator

B. Chromogenic snap packs

C. Sample collection \_\_\_\_\_ Noun

D. UV lamp-Longwave (\_\_\_\_\_ Number)nm

9. Procedural Steps

A. Disinfect work \_\_\_\_\_ Noun

B. Wash hands before and after handling Colilert reagent and samples

C. Open snap pack, pour into sample \_\_\_\_\_ Noun, avoid touching snap pack to rim of the vessel, do not put \_\_\_\_\_ Noun on counter, hold cap down

D. (\_\_\_\_\_ Verb Base Form) sample and (\_\_\_\_\_ Verb Base Form) sample (\_\_\_\_\_ Number) times for proper mixing

.

E. Place \_\_\_\_\_ Noun in (\_\_\_\_\_ Adjective) (noun).

F. Incubate samples at 35.0°C (\_\_\_\_\_ Adverb) 0.5°C for \_\_\_\_\_ Number hours.

10.



## DATA and Records Management

- A. Chain of custody should contain test method, incubation date and time, Initials of \_\_\_\_\_ Noun performing test
- B. Enter distribution sample data into the reporting program.
- C. Print out report and place in the Distribution and Bracketing \_\_\_\_\_ Noun.
- D. Distribution files should be archived at the end of the month.

## 11. Quality Assurance and Quality Control

- A. Positive and Negative Control: Run a positive and negative control every three months on the lot of Colilert and new lots opened.
- B. Autofluorescence Check: Check each lot to see if the snap pack contents fluorescence or changes color. Inform Manager, discontinue use of the lot.
- C. PE Study: Once per year from an EPA certified laboratory.

## 12. References:

Standard Methods for the Examination of Water Wastewater 24th Ed., 2021 (\_\_\_\_\_ Number)

IDEXX Laboratories, Inc.

