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Date issued: August 22, 2016

REPORT

Client: UES Co., Ltd
3894-51, ASSO, KAMITONDA-CHO, NISHIMURO-GUN, WAKAYAMA, 649-2105, JAPAN

Sample(s): Included in report

Title: Bacterial Growth Test

Received date of sample(s): July 25, 2016

This report has been translated into English from Japanese report No. 16081975001-0101 (Date issued: August 22, 2016).

Signed for and on behalf of JFRL



T. Arai

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Section of Analysis Documentation

Sep. 15, 2016

Date

Bacterial Growth Test

1. Client

UES Co., Ltd

2. Samples

- 1) Mineral water (control product)
- 2) Mineral water (Ag Activated carbon - For bottled water)
- 3) Ag Activated carbon - For bottled water

The sample 1) was provided on August 05, 2016. The sample 2) was prepared using the samples 1) and 3) by Japan Food Research Laboratories.

3. Outline of the method

Test cell suspension was added to the sample (hereafter called "the test solution"). At a designated measurement point, the viable cell count of the test solution was measured.

A preliminary test (confirmation of the conditions for neutralization) was performed to determine the test conditions in which the viable cell count measurement could be performed without the effect of the sample.

4. Results

Tables 1 and 2 show the results and the test conditions, respectively. Photos 1 to 3 show the agar plates after incubation.

Based on the results of the preliminary test, it was confirmed that the test solution should be diluted 10-fold with SCDLP broth so that the viable cell count measurement could be performed without the effect of the sample.

Table 1. Viable cell counts of the test solutions

Test organism	Test specimen	Viable cell count (per mL)			
		Initial	After 3 hours	After 6 hours	After 24 hours
<i>Escherichia coli</i>	Sample 1)	3.2×10^3	3.0×10^3	3.7×10^3	3.9×10^3
	Sample 2)*	—	<10	<10	<10

<10: Not detected

Storage temperature: Room temperature

* A mixture of 500 mL of the sample 1) and 1 g of the sample 3).

Table 2. Test conditions

Test cell suspension	Test organisms	<i>Escherichia coli</i> NBRC 3972
	The test organism was incubated on Nutrient Agar (Eiken Chemical Co., Ltd.) at 35 °C ± 1 °C for 18 to 24 hours and suspended in purified water to give a concentration of about 10 ⁶ /mL.	
Test solution	A 1-mL portion of the test cell suspension was added to 500 mL of the sample.	
Storage conditions	Temperature: Room temperature Time: 3, 6 and 24 hours	
Neutralization conditions	The sample was diluted 10-fold with SCDLP broth (Nihon Pharmaceutical Co., Ltd.).	
Measurement of viable cell counts	SCDLP agar (Nihon Pharmaceutical Co., Ltd.) Pour plate method	Incubation conditions: 35 °C ± 1 °C 2 days



Photo 1. *Escherichia coli*, Sample 1), Initial
(0.1 mL of the test solution)



Photo 2. *Escherichia coli*, Sample 1), After 24 hours
(0.1 mL of the test solution)



Photo 3. *Escherichia coli*, Sample 2), After 24 hours
(0.1 mL of the test solution)

****End of Report****