

Guangdong Detection Center of Microbiology

Report For Analyses

Rep.No: 2020FM03476R02

Sample Name: YEARUP Disinfectant Tablet

Received Date:29-02-2020

Test Items : Simulated qualification Test of Disinfection

Completion Date:06-04-2020

Effectiveness on Disinfect Fabric

1.Equipments :

1-Test Strains : Escherichia Coli (8099) And Staphylococcus Aureus (ATCC 6538),Strains Belongs to 5th Generation , Source: Guangdong Province Microbial Culture Collection Center .

2-Test Sample (s): YEARUP Disinfectant Tablet

3-Neutralizer : 3% Tween 80% ,0.5% Sodium Thiosulfate ,0.5%L Histidine ,0.5%peptone,0.85%Sodium Chloride,1.43%Lechtin ,0.1%PBS Solution of Cysteine .

4-Disinfection Object : White Cotton Fabric(5cm × 5cm)

5-Timer and Graduation Straws (1.0ml,5.0ml,10.0ml) etc

2.Method :

Method Introduction) 1- Test was Conducted According to Heath Ministry <Disinfection Technical Standard >,< 2002 Edition> Part 2-2.1.2.9,Bacterial Suspension Preparation :According to method of Rule No.2.1.1.2 ,Bacterial Amount Detection in : 1.25×10^7 cfu/ Sample ~ 1.25×10^8 cfu/ Sample (About 5×10^5 cfu/cm² ~ 5×10^6 cfu/cm²) .

2-Using Artificial Stained White Cloth(5cm× 5cm) 60Piece , Wait Until its Dry Naturally and Then Start Do Experiment .30Pieces as Positive Comparison Set the Other 30Pieces as Test set .

3-Positive Comparison set: Place it in non-Bacterial water To Soak For 5Min, then Put then into 5ML Dilution ,As Prober Dilution .

4-Test Set(Disinfect Samples):Soak 30Pieces into Test Samples With Concentration of 200mg/L To Disinfect . Then Put then into 5Ml Of Neutralizer in Test Tube For 10Min, As Prober Dilution .

5-After Test is Done, Inoculate the Neutralizer and Dilution With 1.0mlSubstrate ,As Positive Set .

6- Put positive Set, Negative Set And Disinfect Set 'Samples ,Every Sample Has 2 Inoculation Plate ,Every Plate is 1.0ml , Inoculate With Agar pour method , Put it in Box With Constant Temperature of 37.0° For 48H,Count Live and Killed Bacteria .

3.Result:

Under Experiment Conditions , Samples in Concentration of 200 mg/L For 5 Min, Repeated 3Times, Logarithmic average of Killed Bacteria on White Cotton Cloth Escherichia Coli and Staphylococcus Aureus Samples >5.00 (View Table)

Effectiveness on Disinfect Fabric

Test Results As Follows :

Table2:YEARUP Disinfectant Tablet (200mg/L) Disinfection simulation test of Escherichia coli on white cotton cloth

| No. | Number of Bacteria on | Number of Bacteria on | Killed Bacteria Positive |
|-----|-----------------------|-----------------------|--------------------------|
|-----|-----------------------|-----------------------|--------------------------|

| | Positive Set (cfu/sample) | Test Set (cfu/sample) | Set Logarithmic Value (cfu/sample) |
|---------------|------------------------------|--------------------------|--|
| 1 | 2.18×10^7 | 1.65×10^3 | 4.31 |
| 2 | 1.93×10^7 | 3.45×10^2 | 4.62 |
| 3 | 2.65×10^7 | 3.18×10^2 | 4.86 |
| 4 | 1.70×10^7 | 1.35×10^2 | 5.20 |
| 5 | 2.05×10^7 | 7.00×10^2 | 4.50 |
| 6 | 1.30×10^7 | 4.20×10^2 | 4.69 |
| 7 | 3.70×10^7 | 5.00×10^2 | 4.52 |
| 8 | 4.63×10^7 | 6.80×10^2 | 4.55 |
| 9 | 5.28×10^7 | 2.30×10^3 | 4.26 |
| 10 | 2.85×10^7 | 2.03×10^3 | 4.53 |
| 11 | 2.68×10^7 | 6.13×10^2 | 5.06 |
| 12 | 3.53×10^7 | 2.53×10^2 | 5.44 |
| 13 | 4.10×10^7 | 6.85×10^2 | 4.86 |
| 14 | 2.18×10^7 | 1.78×10^2 | 5.56 |
| 15 | 1.70×10^7 | 2.90×10^2 | 5.36 |
| 16 | 1.85×10^7 | 6.80×10^2 | 4.87 |
| 17 | 5.48×10^7 | 1.20×10^3 | 4.41 |
| 18 | 6.65×10^7 | 6.30×10^2 | 4.82 |
| 19 | 5.30×10^7 | 4.35×10^2 | 4.76 |
| 20 | 4.68×10^7 | 6.43×10^2 | 4.55 |
| 21 | 5.43×10^7 | 5.60×10^2 | 4.52 |
| 22 | 6.50×10^7 | 5.68×10^2 | 4.82 |
| 23 | 5.80×10^7 | 5.10×10^2 | 4.54 |
| 24 | 4.08×10^7 | 2.50×10^3 | 3.98 |
| 25 | 2.15×10^7 | 2.65×10^3 | 3.81 |
| 26 | 6.23×10^7 | 2.73×10^2 | 4.57 |
| 27 | 1.65×10^7 | 5.03×10^2 | 4.71 |
| 28 | 3.68×10^7 | 6.10×10^2 | 4.48 |
| 29 | 4.48×10^7 | 3.05×10^3 | 4.07 |
| 30 | 3.90×10^7 | 5.98×10^2 | 4.58 |
| Average Value | 3.86×10^7 | 8.97×10^3 | 4.65 |

Negative Set :There's No Viable Bacteria.

Effectiveness on Disinfect Fabric

Test Results As Follows :

Table2:YEARUP Disinfectant Tablet(200mg/L) Disinfection simulation test of on white cotton cloth

| No. | Number of Bacteria on Positive Set (cfu/sample) | Number of Bacteria on Test Set (cfu/sample) | Killed Bacteria Positive Set Logarithmic Value (cfu/sample) |
|-----|---|---|---|
| 1 | 4.60×10^7 | 3.70×10^2 | 4.75 |
| 2 | 5.45×10^7 | 5.65×10^2 | 4.93 |
| 3 | 6.18×10^7 | 1.50×10^3 | 5.09 |
| 4 | 6.85×10^7 | 2.45×10^3 | 5.14 |
| 5 | 5.43×10^7 | 2.13×10^3 | 4.93 |
| 6 | 6.03×10^7 | 4.20×10^2 | 4.72 |
| 7 | 7.08×10^7 | 3.55×10^2 | 5.20 |
| 8 | 5.45×10^7 | 2.08×10^2 | 4.59 |
| 9 | 3.35×10^7 | 4.30×10^2 | 4.80 |
| 10 | 3.50×10^7 | 6.80×10^2 | 4.92 |
| 11 | 3.10×10^7 | 5.30×10^2 | 4.81 |
| 12 | 3.20×10^7 | 2.20×10^3 | 4.96 |
| 13 | 3.40×10^7 | 5.25×10^2 | 4.93 |
| 14 | 2.48×10^7 | 6.00×10^2 | 4.10 |
| 15 | 2.08×10^7 | 1.90×10^3 | 4.10 |
| 16 | 1.89×10^7 | 3.75×10^2 | 4.61 |
| 17 | 1.73×10^7 | 3.83×10^2 | 4.41 |
| 18 | 3.30×10^7 | 6.48×10^2 | 4.75 |
| 19 | 5.15×10^7 | 3.28×10^2 | 4.47 |
| 20 | 4.18×10^7 | 1.90×10^3 | 4.79 |
| 21 | 3.78×10^7 | 1.78×10^2 | 4.86 |
| 22 | 5.85×10^7 | 5.18×10^2 | 4.65 |
| 23 | 6.73×10^7 | 1.60×10^2 | 4.67 |

| | | | |
|----|--------------------|--------------------|------|
| 24 | 6.70×10^7 | 6.15×10^2 | 4.99 |
| 25 | 6.55×10^7 | 2.90×10^3 | 5.18 |
| 26 | 5.90×10^7 | 6.48×10^2 | 4.61 |
| 27 | 6.18×10^7 | 5.03×10^2 | 4.03 |
| 28 | 4.15×10^7 | 4.74×10^2 | 4.74 |
| 29 | 3.45×10^7 | 2.08×10^3 | 4.83 |
| 30 | 200×10^7 | 5.88×10^2 | 4.51 |

Average Value

4.52×10^7

5.77

9.66×10^2

Negative Set :There's No Viable Bacteria.

4. Conclusion :

Under Experiment Conditions , Samples in Concentration of 200mg/L For 5Min, Repeated 3Times, Logarithmic average of Killed Bacteria on White Cotton Cloth Escherichia Coli and Staphylococcus Aureus Samples >5.00 , According to Regulations of Disinfection Technical Standard ,< 2002 Edition> -2.1.2.9.4 (All Samples Killed Bacteria Average ≥ 5.00),So Its Qualified As Disinfectant .

Langfang Yuanmao Trading Co., Ltd.