**ECO-MEDI SAFEGUARD+**
Classic Matt Anti-Viral Paint

**HOW DOES SMART SILVER GUARD TECHNOLOGY™ WORK?**

1. **DEACTIVATION**
   - Silver ions destroy the cell membrane of viruses & bacteria, making them non-functional.

2. **STOP REPRODUCTION**
   - Silver ions stop viruses & bacteria from reproducing & multiplying.

3. **INHIBITS GROWTH**
   - Silver ions slow down the metabolism & eventually cause the death of viruses & bacterial.

**Human Coronavirus**
- e.g. Beta Coronavirus (CoV-OC43)
- E Coli
- S. Aureus
- E.Coll

**HFMD**
- e.g. EV-71

**S. Aureus**
- 1. Effective against viruses - up to 99.9\% Human Coronavirus (CoV-OC43 - Beta Coronavirus) & 99.9\% HFMD - Hand, Foot & Mouth Disease (EV-71 - Human Enterovirus)
- 2. Effective against bacterial - up to 99.9\% E. Coli & S. Aureus

**Lilac White** 20188  **Rose White** 20145  **Apple White** 20174

**Puteri Pink** 20113  **Puteri Blue** 20116  **Orchid White** 20138

**Light Lemon** 20184  **Roman Beige** 20128  **Mobe Pearl** 20166

**Royal Crown** 20122  **Honey Dew** 20111  **Royal Penxfir** 20155

0.1% coated glass plates was used as the negative control.

**Table 1. Experiment Controls**

<table>
<thead>
<tr>
<th>Virus</th>
<th>Sample ID</th>
<th>Virus Titer of Replicates</th>
<th>Mean Virus Titer</th>
<th>Log Reduction</th>
<th>Percent Reduction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoV-OC43</td>
<td>9.6E-05</td>
<td>7.6E-06</td>
<td>7.1E-06</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Positive control*</td>
<td>8.6E-05</td>
<td>6.6E-06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative control*</td>
<td>No plaques</td>
<td>No plaques</td>
<td>N.A.</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>EV-AT1</td>
<td>5.8E-05</td>
<td>5.6E-05</td>
<td>5.5E-05</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>Positive control*</td>
<td>6.8E-05</td>
<td>6.6E-05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative control*</td>
<td>No plaques</td>
<td>No plaques</td>
<td>N.A.</td>
<td>N.A.</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Evaluation of Smart Eco-Medi SafeGuard**

<table>
<thead>
<tr>
<th>Virus</th>
<th>Contact Time</th>
<th>Virus Titer of Replicates</th>
<th>Mean Virus Titer</th>
<th>Log Reduction</th>
<th>Percent Reduction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CoV-OC43</td>
<td>24 hours</td>
<td>2.6E+03</td>
<td>4.4E+03</td>
<td>3.21</td>
<td>99.94</td>
</tr>
<tr>
<td>EV-AT1</td>
<td>24 hours</td>
<td>4.5E+02</td>
<td>3.7E+02</td>
<td>3.17</td>
<td>99.93</td>
</tr>
</tbody>
</table>

**Institut Kesihatan dan Perubatan Komuniti**
Institute of Health and Community Medicine

Report on virucidal efficacy of treated paint against human coronavirus OC43 (CoV-OC43) and human enterovirus 71 (EV-AT1).

Testing Method: Modified ISO 27902:2019

**Antivirus**
- **CoV-OC43**
- **EV-AT1**

**TEST RESULT**

**99.9\% Effective against Human Coronavirus**
& HFMD

**Smart Eco-Medi SafeGuard™** is an environmental-friendly bio-proof interior paint that promotes good hygiene and a healthy environment. This product is specially formulated with Silver-ion technology which is tested and effectively battle against viruses like Human Coronavirus and Enterovirus 71 (Single-stranded RNA virus which is also one of the pathogens that causes hand, foot and mouth disease). Besides, this product also protects the environment from any types of bacteria such as E Coli and Staphylococcus Aureus, fungi and mould. It is highly recommended to be used in environments such as childcare centres, kindergarten, school, clinics, hospitals and other facilities that require hygiene attention. The paint film is durable and washable which is highly suitable for interior wall and ceiling.

**Infectious VS Bacterial**

**Viruses**
- Viruses are NOT living organism.
- Viruses only grow and reproduce inside the host cells they infect.
- When found outside of these living cells, viruses are dormant. Their "life" therefore requires the hijacking or biochemical activities of the living cells.

**Bacteria**
- Bacteria are living organisms.
- Bacteria are living organisms that consist of single cell that can generate energy, make its own food, move and reproduce (typically by binary fission). This allows bacteria to live in many places - soil, water, plants and the human body – and serve many purposes.

**Viruses**
- Submicroscopic:
  - Virus size around 0.02-0.25μm
  - Size of coronavirus 65 – 125nm (0.065 – 0.125μm)

- A viral infection is systemic. Viruses infect a host cell and then multiply by the thousands, leaving the host cell and infecting other cells of the body.

**Bacteria**
- Bacteria are giant compared to viruses.
- Smallest bacteria is 0.4μm

**Systemic disease caused by viral infection include influenza, measles, polo, AIDS and COVID-19**

**Bacteria diseases include pneumonia, tuberculosis, tetanus and food poisoning.**

This colorcards or this card are as close to the actual colors as modern printing techniques allow.