

# To Treat or not to Treat-

## Guidelines to help making decisions based on microbial measurement results.

**Note :** There are set guidelines or International Standards although there are a few groups working on setting this up.

The following are guidelines only, generated from :

- Field tests corroborated by microbial results.
- Literature surveys
- Australian standard reference

### Australian Standards Reference:

SAA/SNZ HB32:1995

Contamination by fungi or bacteria can develop on wet surfaces. It has been suggested that an acceptable level of airborne viable micro-organisms in occupied spaces is around 500 to 1000 colony forming units per cubic metre. Levels of 3000, 5000 and 10 000 have been associated with hypersensitivity pneumonitis outbreaks and it is generally thought that a level of 1000 is sufficient to warrant investigation and improvement (which is not to say that the air is unsafe or hazardous—such assessments require the services of medical practitioners and epidemiologists).

**It is Melaklean's suggestion that it is adequate to refer the measurement of your indoor air to an approved Indoor Air Quality specialist or an approved microbiology laboratory.**

### Building Damage Remediation Reference Guidelines

- If a sample of building material returns a surface count of <5000 cfu/gm it is seen as acceptable. Anything above this limit requires some form of cleaning action.
- With respect to airborne microbial contamination, CETEC's risk assessment quotes ACGIH's guidelines indicating up to 1000 cfu/mt<sup>3</sup> of air is acceptable, but also states that CETEC's own assessment recommends action limits be 500 cfu/mt<sup>3</sup> maximum.
- With reference to a "normal" indoor surface guidelines, a surface microbial reading of 200 cfu/cm<sup>2</sup> is seen as acceptable, up to 500 cfu/cm<sup>2</sup> required remedial action, and above 500 cfu/cm<sup>2</sup> is seen as significantly contributing to the indoor air bio-burden.

### Melaklean's Surface test kit with colour change result indication.

To compare the Melaklean kit with the above guidelines one must test the required surface, a square or rectangle between 20 and 30 cm in dimension. This will generate the appropriate comparison test value.

Surface readings between 200 and 500 cfu/cm<sup>2</sup> will generate an orange colour on the test kit because they translate to 10<sup>4</sup> and 10<sup>5</sup> ranges over the test surface described above.

But any darker yellow shade meaning approximately 1000 cfu to 10000 cfu cannot be ignored entirely and should prompt treatment of the air handling system and the indoor air space with a sanitizer like Melaklean's products.

**Melaklean's own results indicate that typical air for our Australian fresh air environments are between 30 and 500 cfu per meter cube. Therefore it is Melaklean's recommendation that any reading above 500 indicates there is a build up in the indoor air space and treatment should be implemented.**

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