EVALUATION REPORT

OF

Antifungal Properties

OF

Environmental
Air Sponge

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EVALUATION REPORT OF ANTIFUNGAL PROPERTIES OF AIR SPONGE
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1. INTRODUCTION

Air Sponge is a neutral gelatinous paste made of polyéther resins with a high molecular weight added with activated charcoal (3%), propanediol (3%), PVP (10ppm) and fragrance. Described by its manufacturer as an airborne trap, this substance was devised to eliminate organic and chemical odors in buildings. Air Sponge is a highly volatile substance (83%) which can be found suspended in the surrounding air it is supposed to purify. The resins and the activated charcoal absorb the particles responsible for polluting the air, pulling them to the ground.

This limited study is a first step in the evaluation of the supposed efficiency of Air Sponge to eliminate spores of molds found suspended in the air inside buildings.

2. RESEARCH PROTOCOL

Base measurements were taken inside a 40 square foot incubator at room temperature. This incubator contained a number of molds commonly found in buildings, namely: Penicillium, Aspergillus, Mucor, Cladosporium, Altemaria, Epicoccum, and Aurebasidium among others. A mixture of these mold spores was maintained in the incubator in 5 petri dishes 10 cms in diameter containing a culture medium appropriate for the development of these micro-organisms (MEA medium). After a week, the air inside the incubator was full of spores and there was a very strong musty odor when the door was opened.

Three sterile petri dishes containing an MEA nutrient medium were placed inside the contaminated incubator for 10 minutes in order to enable the spores suspended in the surrounding air to deposit on the surface inside the dishes. The three petri dishes were then closed and set aside. One week later, a count of the mold colonies developing in them was taken.

A new container of Air Sponge was opened and placed inside the incubator for 48 hours. At the end of this period, 3 sterile petri dishes containing a nutrient MEA medium were left open for 10 minutes inside the incubator together with the Air Sponge. The three petri dishes were then closed and set aside. One week later, a count of the mold colonies developing in them was taken.

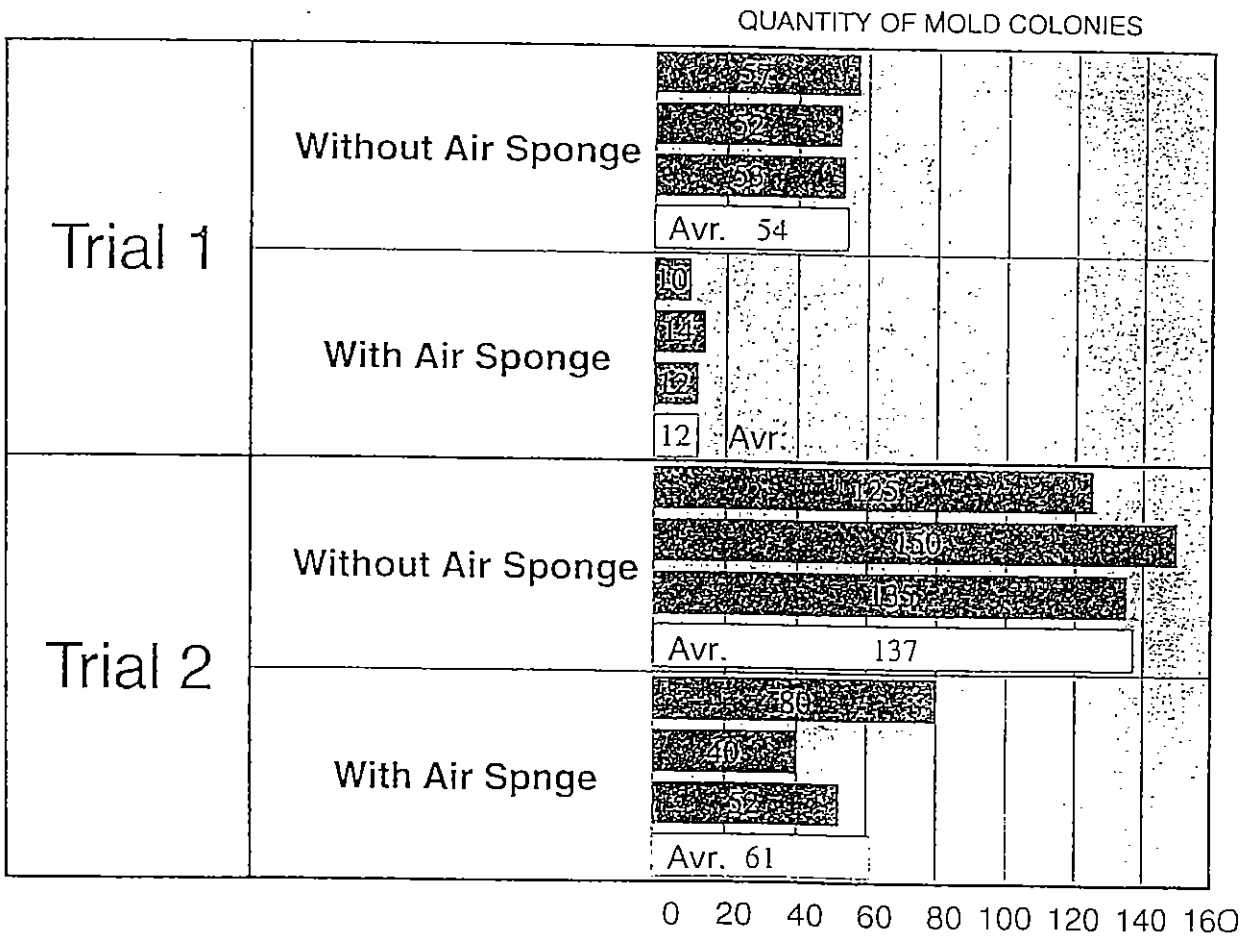
This entire experiment was conducted twice.

3. RESULTS

NUMBER OF MOLD COLONIES

Trial	Without Air Sponge	With Air Sponge
1	57	10
	52	14
	53	12
	Average 54	Average 12
	100%	22% ± 4%
2	125	80
	150	40
	135	52
	Average 137	Average 61
	100%	42% ± 14%

NUMBER OF MOLD COLONIES GRAPH



4. CONCLUSION

Results of the two trials were basically similar. In the presence of Air Sponge, the quality of viable mold colonies inside the incubator was reduced by 70%.

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