FinaGuard AM
Antimicrobial additive offering 'Safety & Sustainability'

FINE ORGANICS

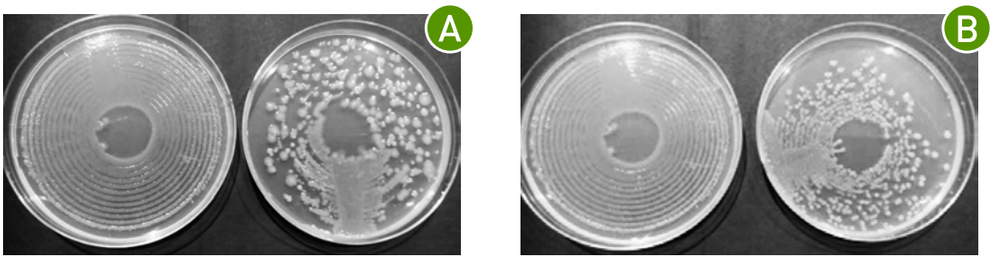
Plastics can be vulnerable to microbial growth; which can adversely affect properties of the base polymers and can result in cross-contaminations in humans. Therefore, it is critical to use a suitable additive to protect the plastic material as well as to ensure the minimized possibility of cross-contaminations. Conventional antimicrobial additives typically tend to include metal-based/nanoparticle based, toxic element containing compounds or other categories; wherein, the effective bacterial control can be attained. It has been observed that the increasing concern about health and well-being along with the awareness towards environment have resulted in preference to green additives; thus, posing the demand for suitable benign products. The major apprehension with conventional antimicrobial additives is due to the possible effects of these components on human and/or other living organisms and further, due to the phenomenon of developing resistance to specific antibacterial additive in bacteria.

Fine Organics has devised a safe and sustainable additive for this application - **FinaGuard AM.**

FinaGuard AM is a 100% bio-based antimicrobial additive, which can offer multiple benefits including:

- Metal-free, derived from vegetable oil and safe
- Offers effective antibacterial activity
- Suitable for polymer processing
- Suitable for food contact application

FinaGuard AM has been tested by following JIS Z 2801:2010 test method.



Determination of viable bacteria by visual observations - agar plate culture method for Escherichia coli ATCC 8739 (Gram -ve bacteria). **(A)**. Metal-based conventional antimicrobial additive @ 0.3% and **(B)**. FinaGuard AM @ 0.3%

FinaGuard AM offers effective antibacterial activity in PE and PP (antibacterial activity - 'R' index value > 2). Further, FinaGuard AM also imparts excellent antibacterial properties along with resistance to fungal growth in PVC and several other polymers as well. (Detailed test data is available on request).

The spectrum of potential applications is evidently wide for FinaGuard AM:

- Medical apparatus (Syringe, moulded plastic apparatus)
- Domestic products - Kitchen ware, Plastic moulded furniture
- Electronics, office ware - Moulded parts
- Personal protective equipments (PPEs) - Face shield, safety glasses, protective gowns (made from PP non-woven fabric)
- Curtains, bathmats, flexible packaging films, refrigerator gaskets, windows gaskets, wallpaper, flooring etc.

FinaGuard AM can impart effective antimicrobial properties in polymers at optimum dosage; further offer safety benefits during handling and cost benefits compared to products containing expensive components.

For Further technical assistance, Please contact our Technical Services Department | Email : info@fineorganics.com

FINE Polymer Additives

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