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# NEWS RELEASE

Client: Gelest  
For Immediate Release

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## **GELEST'S BIOSAFE ANTIMICROBIAL IS NOW COMPLIANT FOR FOOD CONTACT AND DRINKING WATER FILTRATION APPLICATIONS**

*BIOSAFE® HM4100 Antimicrobial Renders Plastics, Coatings and Filter Media Inherently Antimicrobial, and is Now Approved for Food Contact and Drinking Water Applications after FDA and EPA review.*

MORRISVILLE, Pa. (May 4, 2017) – Gelest, Inc. today announced that BIOSAFE HM4100 now provides permanent protection of polymers, coatings, thin films, laminates, polymeric beverage tubing, and filter media that come in contact with food and drinking water, an altogether new market for the BIOSAFE product line. BIOSAFE is more cost effective than conventional silver-based antimicrobials, while eliminating leaching concerns even at maximum prescribed levels.

“The enduring effectiveness of our BIOSAFE additive, combined with its compelling chemical and safety profile, makes this antimicrobial a powerful new tool for reducing unwanted microbes in food and drinking water applications,” said Donald J. Wagner II, Technical Marketing Manager and inventor on the BIOSAFE patent.

BIOSAFE antimicrobial technology protects surfaces from staining, pitting, deterioration and odor caused by bacteria, mold, mildew and fungi. It does not compromise end-product safety by migrating out of the plastic or being rubbed off the surface.

Applications include commercial food prep surfaces, coatings, thin films, and laminates. Additionally, the EPA and FDA have reviewed the technology and found that BIOSAFE is compliant for use in polymeric beverage tubing and activated carbon water filter media.

Gelest's amended EPA label for BIOSAFE HM4100 lists it as an approved-use polymer and coating for food prep surfaces and polymeric beverage tubing at a loading level up to 1% by weight. However, the typical loading level of BIOSAFE additive required to effectively treat a given quantity of plastic or coating is between 0.2 and 0.5%.

The keystone of Gelest's BIOSAFE product line is HM4100 Antimicrobial, which the company supplies as a solid powder. It contains no volatile organic compounds (VOCs), heavy metals, arsenic or polychlorinated phenols. Toxicity tests have shown them to cause no irritation or sensitization in skin contact. BIOSAFE chemistry has been reviewed by the FDA and received a Threshold of Regulation Exemption. The HM4100 Antimicrobial (EPA Reg. No. 83019-1) label was amended and stamped April 12th, 2017 by the FIFRA office of the EPA to include these new food-contact surface uses.

"The global market for food contact materials has been in dire need of an alternative antimicrobial that is safe and effective. For years, customers have had to choose between silver or triclosan, both of which have come under tremendous scrutiny and in some cases have been banned outright for consumer products," said Joel Zazyczny, Executive Vice President. "BIOSAFE HM4100 Antimicrobial, when used as an additive or surface coating, offers value and differentiation in its longer-lasting ability to stay free

and clean of microbial stains and odor, and it gives consumers peace-of-mind that their products are protected.”

With proper integration, BIOSAFE products exhibit high antimicrobial performance in ISO and ASTM testing. The active ingredient in the BIOSAFE antimicrobial was developed and registered with the U.S. EPA in the mid-1970s, and has since been widely used in numerous applications. Gelest, Inc. has expanded the breadth of applications and manufacturing processes by removing VOCs and making the antimicrobial available in a new polymeric powder. The BIOSAFE powder can be compounded with polymer resins and used in food contact surface applications.

## **About Gelest**

Gelest, Inc., headquartered in Morrisville, Pennsylvania, is recognized worldwide as an innovator, manufacturer and supplier of commercial and research quantities of organosilicon compounds, metal-organic compounds and silicones. Gelest serves advanced technology markets through a materials science-driven approach. The company provides focused technical development and application support for semiconductors, medical materials, pharmaceutical synthesis, diagnostics and separation science, and specialty polymeric materials: “Gelest – Enabling Your Technology.” [www.gelest.com](http://www.gelest.com)

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