# BAE®: THE SOURCE

### WHAT IS BAE?

BAE is a proprietary organic liquid bio-stimulant produced from naturally occurring combinations of hydrogen and oxygen molecules and organic acids that have no metals or metallic types in the compound. The Company's unique patented processing and blending techniques yield a powerful humic extract with significant benefits in the wastewater treatment environment. These complex techniques assure the best yields of the product with the greatest beneficial activity. Also, these techniques have allowed the Company to create a proprietary dispersion technology resulting in low dosage rates of 0.5 gal - 1.0 gal per 1 million gallons of flow, while ensuring maximum impact on the biological efficiency of the microbial population.

# **HOW DOES BAE WORK?**

BAE has the unique ability to stimulate the indigenous microbial population of the wastewater treatment plant by permeating cell walls, initiating a chain reaction within the biological environment that accelerates the growth of the microbial population and maximizes biological activity. University studies have shown that BAE will cause the microbial population to increase 4 to 5 times and double in activity in a relatively short period of time.

BAE also creates a more favorable environment for microbes to grow and thrive by supplementing the treatment plant's biomass with organic nutrients and adsorbing heavy metals and inhibitors. As a result, microbes are free to reproduce and break down sludge at an accelerated rate. In addition, this healthier biological population enhances the biomass's ability to respond to changes in the wastewater environment.

## **HUMIC AND FULVIC ACIDS IN BAE**

BAE is made up of high molecular weight humic and low molecular weight fulvic acids, along with other dissolved or suspended organic matter. The smaller fulvic acid molecule adds to BAE's ability to manage micronutrient metals and nutrients in the system. The Company's patented process produces the highest yields of both humic and fulvic acids, which enable BAE to more effectively permeate cell walls for maximum microbial stimulation. BAE is also partly made up of high levels of aromatic hydrocarbons. This combination of molecules cannot be broken down by microbial activity any further and has reached its highest organic reactivity potential as a result.

## CONCLUSION

It is the patented process used to create BAE that makes it so effective and unique. As a result, wastewater treatment facilities using BAE can experience:

- reduced polymer use & costs.
- reduced hauling costs.
- improved operational efficiency in the aeration basins.
- enhanced biogas production in anaerobic digesters.
- superior solids handling.
- greater operational stability throughout the plant.
- reduce cost of retreating solids.

# ADDITIONAL INFORMATION AVAILABLE UPON REQUEST

