



## Safe-N-Clean Pool Clarifier

### **Introduction**

The use of flocculants and coagulants in recreational and commercial pool settings has been a long time standard in reducing turbidity in troubled pools and normal pools alike. These additives work by agglomerating microscopic particles into larger particles that can be filtered by typical mechanisms. In addition to algal mitigation, health benefits associated with these types of products have been lauded to have the potential to keep families and patrons of commercial facilities safer from waterborne pathogens such as E. Coli and *cryptosporidium-a* parasitic disease.

### **Current Industry**

Flocculants more than coagulants are commonly manufactured in a crystalline powder form. This has presented issues for industries who require these products for separation and clarification in aqueous systems. Engineers have designed chemical mixers and mixing ratios to reduce the undesirable shearing effects of these polyelectrolytes into massive unproductive clumps when dissolved in water. However, these masses are still present, and thus result in a loss of product and overall efficiency due to reduced active surface area. More importantly, they have created the need for extra costs in purchasing and maintenance of capital equipment.

Another problem presents itself once the polyelectrolytes have attained complete dissolution. In typical formulations, rates of application can cause significant operational issues in pools and spas if not managed properly. Concentrated one shot clarifiers currently used in the industry have been found to overload the system, clog filters, and reduce the effectiveness of the clarifier rendering the system with diminished clarity and an inherent need to clean the overwhelmed filter. This in turn creates higher maintenance costs for the end user. On the opposite end of the spectrum, diluted products found in solutions are not concentrated enough to last longer than a day if they work at all on larger scales.

### **Safe-N-Clean Pool Clarifier™**

Safe-N-Clean Pool Clarifier™ is a concentrated gel tablet that utilizes a proprietary complexation of biodegradable polyelectrolytes and other nontoxic agents to effectively assist your sand, diatomaceous earth (DE), and pleated filters to become more efficient in terms of its ability to remove harmful bacteria, viral species, microscopic particles, and odor causing oils accumulated within your pool from general use.

Where Safe-N-Clean Pool Clarifier™ rivals our competitors is we definitively provide pool and spa systems with a long-lasting time release gel mechanism for delivering an effective dosage of polyelectrolyte complex over a period of several days, thereby eliminating the need for mixing, measuring, and high maintenance. In addition, the time released formula allows a pool or spa to have exposure to the clarifier over the entire service period. One shot products are inefficient in the fact that they overwhelm the system, clog filters, and only work up to 2 days at a time. Safe-N-Clean's time release gel disperses over a period of 3 – 20 days, depending on method of delivery, and effectively treats up to 30,000 gallons of water for 30 days. Some of the added benefits of using Safe-N-Clean Pool Clarifier™ in your pool are the following:

#### **Pool Service Industry/ Retail Consumer:**

- Eco-friendly, nontoxic, and biodegradable (social utility)
- Reduced harmful Pathogens and bacteria (health and safety)
- Reduced pool service times (increased filter efficiency by 50%)
- Reduced pump run time (energy mitigation 30-50%)
- Stability in water pool system management (personal utility)

#### **Wholesale/ Retail Industry:**

- Concentrated, no spill, no measure formulation (reduced work hazard)
- Minimal storage requirements (minimized supply chain constraints)
- Lineal retail shelf space not required (hang-tab blister pack)
- Easily integrated into online catalogs (UPC single and case qty's)
- Green marketing strategies