

Q & A: FluoroTrace™

Q. What is FluoroTrace™ ?

A. FluoroTrace™ is QualiChem's use of fluorescent dyes as chemical markers in water treatment products.

Q. How is FluoroTrace™ used to monitor chemical feed in treated systems?

A. With products that contain FluoroTrace™, dyes are blended into the products in exacting ratios so that they can be measured to monitor and control product concentrations. The dyes are measured at ppb (parts per billion) levels that are in proportion to the control ranges desired for each product.

Q. What are the advantages to using FluoroTrace™ ?

A. Using FluoroTrace™ in conjunction with the proper equipment is a very effective method for controlling water treatment programs. FluoroTrace™ products use unique fluorescent dyes to monitor the chemical treatment programs utilizing simple probe technology. These systems do not require special reagents or complicated test procedures for measurement. Online analyzers, as well as handheld meters are also available to simplify monitoring and control. Other common "tracers", such as molybdate, often have mixed results with direct reading analyzers. In addition, some geographies experience regulatory issues due to restrictions with discharge of molybdate.

Q. What are the manufacturing & QC requirements for blending these products?

A. The dyes are measured at ppb levels in the treated systems. At these low levels, extremely small amounts of the dyes are added during manufacturing. QualiChem has developed processes, consistent with ISO 9001 guidelines, that allow the quality levels required to be met. This conformance helps ensure that proper control of these programs can be achieved by customers in the field.



Q & A: FluoroTrace™ (Cont'd)

Q. Is the same dye used in both cooling and boiler applications?

A. No. PTSA (p-Toluenesulfonic acid) is used for cooling tower applications and fluorescein is used for boiler applications. Each dye is chosen specifically to provide a stable dye under typical conditions found in boiler and cooling systems.

Q. What is the cost of products containing FluoroTrace™ ?

A. The cost of FluoroTrace™ varies based on the concentration of the products and the amount of dye required for proper control of the program.

Q. What products are available with FluoroTrace™ ?

A. QualiChem has the ability to custom formulate products with FluoroTrace™ containing leading edge active components used in boiler and cooling formulations.

Q. What about the Nalco patents for TRASAR® technology ?

A. The concept of using fluorescent dyes to monitor the concentration of water treatment products was first patented by Nalco more than 20 years ago. The original patent (and other subsequent patents) expired several years ago.

Q. How do you field test for products that contain FluoroTrace™ ?

A. There are several monitors and controllers that have been developed by Turner Designs, ranging from handheld meters and benchtop analyzers to fully automated controllers for boilers and cooling towers. Other equipment companies have developed controllers that have incorporated the Turner Designs Little Dipper probe. Contact the equipment companies directly for specifics on available technologies.

***Fluorescent Traced
Water Treatment Chemistry
for Continuous Control***
