Continuous Monitoring Key to Early
ALGAE DETECTION

PARAMETER:

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ALGAE

Harmful algal blooms (HAB) can develop rapidly, creating challenges for surface water treatment plants and posing a threat to public health. Early warning of increasing algal populations enables you to quickly investigate source water quality for algal toxins and prepare accordingly before the bloom becomes unmanageable. With continuous monitoring, you will benefit from:

BETTER MITIGATION OF HARMFUL ALGAL BLOOMS

INFORMED DECISION MAKING WITH REAL-TIME DATA

IMMEDIATE ACTION TO AVOID INTAKE OR PLAN TREATMENT

SAVE TIME AND COSTS ON ALGAE MITIGATION

SECURE WATER QUALITY TO ENSURE PUBLIC HEALTH AND SAFETY

Real Tech's algae monitoring solution is a powerful screening tool that enables you to rapidly identify an increasing algal population and the potential onset of a HAB, so you can take immediate action.

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Algae in Drinking Water

Under favorable environmental conditions including warm temperatures, excess sunlight, stagnant or slow-moving waters and high nutrient loading, algae can grow rapidly and form a harmful algal bloom (HAB). Cyanobacteria (blue-green algae) is a common type of algae that can produce HABs. Cyanobacteria have the ability to produce and release cyanotoxins which pose health risks if ingested in drinking water.

The onset of a HAB can be difficult to predict due to the interrelationship of the chemical and physical factors contributing to overgrowth. Continuous monitoring is key for water treatment plants to gain the early warning needed to effectively implement HAB management strategies, mitigate risk and protect public health.

Fast and Effective Algae Screening

Test methods for HAB toxins are typically carried out in the laboratory. The equipment for testing is expensive and the tests themselves are labor-intensive and time-consuming, making them impractical for high frequency or near real-time monitoring of source waters. To gain the benefits of early warning, Real Tech's optical absorbance sensors are a powerful screening tool that can be used to continuously monitor your source water.

Chlorophyll a, the green pigment found in algae and cyanobacteria, has a natural peak absorbance in the visible light spectrum. Our sensors use chlorophyll a measurements to estimate algae cell count in real-time. Turbidity interferences, that tend to heavily impact algae fluorescence measurements, are simply and effectively eliminated using additional reference wavelengths. Real Tech's system provides a fast and effective tool for algae monitoring that will help you keep a pulse on your source water.

Real Tech's monitoring systems can be installed at or near the plant intake, or between the reservoir and water treatment plant for timely indication of increasing algae concentration. Early detection means better decision making and management for your plant. Our systems, together with additional laboratory sampling to confirm the identification of toxins and their concentrations, are a water treatment plant's best tools to mitigate the risk of HABs.

Secure Your Source Water

In addition to algae monitoring, Real Tech's absorbance sensors with multiple wavelengths or full scanning capabilities can provide the added benefit of monitoring other parameters that may be of concern in source water such as natural organic matter (NOM) via UV254, TOC or DOC, nitrate/nitrite and spectral absorbance baseline monitoring for anomalies detection. This makes absorbance sensors the ideal monitoring solution for algae or other contaminants in your source water.

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