**Product Information Bulletin**
**BlueTrace tm Field Test Kit**

PIBE1011

## General

Phosphonate and polymer field test methods for dose control of water treatment products are clearly inaccurate, difficult to use, require expensive reagents, and, in some cases, are quite costly. To compensate for inaccurate control testing, water management firms operate at higher than required product levels to avoid scale and corrosion problems. Accurate, precise test results allow product dose level to be optimized, reducing product use. Chemical product use reduction is a "**green**" objective, from both the **cost** and **environmental** perspectives.

# Our BlueTrace colorimetric tracer used with a BlueTrace Field Test Kit is the cost effective way to obtain accurate, precise test results.

## Technology Development

ProChemTech International, a world leader in water treatment chemistry, has developed a new colorimetric tracer technology for control of difficult to test for phosphonate - polymer cooling water treatment products; **BlueTrace**. This patented[1] technology uses one of two non-toxic organic colorants as a tracer. Via use of the spectrophotometer based **BlueTrace** field test kit, determination of **BlueTrace** level in treated water is simple, fast, and very accurate. In the typical 100 to 200 mg/l working range of most cooling water treatments, **BlueTrace** has error limits of just +/- 5 mg/l. Control testing cost is substantially reduced, the **BlueTrace** spectrometer kit is the one time cost as **no costly chemical reagents are used in the control test procedure**, only filter paper if the sample is turbid.

## Test Procedure

The test procedure for **BlueTrace** is simplicity itself; turn on the spectrophotometer, blank the unit with a city water sample, place a cooling water sample in the cell, read the absorbance, and multiply by a factor to obtain mg/l of the product in use. With turbid cooling waters, a filtration step is needed to remove interference by suspended solids.

The **BlueTrace** test procedure is linear and neither of the two colorants is affected by the level of hardness or alkalinity in the cooling water; no effects have been noted with all commonly used polymers, copolymers, terpolymers, or phosphonates. One colorant is halogen stable at typical treatment levels. Colorants and test kits are available from both ProChemTech and selected water management firms across the country.


## ProChemTech International, Inc.

**"Innovation in Water Management"**

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[1] US Patent #7,932,091