



Division of Kingscote Chemicals ®

## WATER TRACING DYE FWT RED PRODUCTS

### TECHNICAL DATA BULLETIN

Bright Dyes FWT Red liquid products are specially formulated versions of Rhodamine WT dye for convenient use in water tracing and leak detection studies. This bright, fluorescent red dye is certified by NSF International to ANSI/NSF Standard 60 for use in drinking water. It may be detected visually, by ultraviolet light and by appropriate fluoremetric equipment. Today it is most often used visually. Visually the dye appears bright pink to red, depending on its concentration and under ultraviolet light as bright orange.

The dye is resistant to absorption on most suspended matter in fresh and salt water. However, compared to Bright Dyes FLT Yellow/Green products it is significantly more resistant to degradation by sunlight and when used in fluoremetry, stands out much more clearly against background fluorescence. As always the suitability of these products for any specific application should be evaluated by a qualified hydrologist or other industry professional.

| General Properties                              | Tablets                            | Liquids (200)                      | Powders                            |
|---|------------------------------------|------------------------------------|------------------------------------|
| Detectability of active ingredient <sup>1</sup> | Visual <100 ppb                    | Visual <100 ppb                    | Visual <100 ppb                    |
| Maximum absorbance wavelength <sup>2</sup>      | 550/588 nm                         | 550/588 nm                         | 550/588 nm                         |
| Appearance                                      | Dark red convex<br>1.6cm diameter  | Clear dark red<br>aqueous solution | Dark red fine<br>powder            |
| NSF (Max use level in potable water)            | 0.3 ppb                            | 0.8 ppb                            | 0.1 ppb                            |
| Weight  | 1.05 gms ± 0.05                    |                                    |                                    |
| Dissolution Time <sup>3</sup>                   | 50% < 3 minutes<br>95% < 6 minutes |                                    | 50% < 3 minutes<br>95% < 6 minutes |
| Specific Gravity                                |                                    | 1.15 ± 0.05 @ 25° C                |                                    |
| Viscosity <sup>4</sup>                          |                                    | 4.3 cps                            |                                    |
| pH  |                                    | 10.6 ± 0.20 @ 25° C                |                                    |

| Coverage of Products | One Tablet  | One Pint Liquid | One Pound Powder |
|----------------------|-------------|-----------------|------------------|
| Light Visual         | 604 gallons | 250,000 gallons | 467,000 gallons  |
| Strong Visual        | 60 gallons  | 25,000 gallons  | 46,700 gallons   |

Caution: These products may cause irritation and/or staining if allowed to come in contact with the skin. The use of gloves and goggles is recommended when handling this product, as with any other dye or chemical.

To our best knowledge the information and recommendations contained herein are accurate and reliable. However, this information and our recommendations are furnished without warranty, representation, inducement, or license of any kind, including, but not limited to the implied warranties and fitness for a particular use or purpose. Customers are encouraged to conduct their own tests and to read the material safety data sheet carefully before using.

<sup>1</sup> In deionized water in 100 ml flask. Actual detectability and coverage in the field will vary with specific water conditions.

<sup>2</sup> No significant change in fluorescence between 6 and 11 pH.

<sup>3</sup> (One tablet, 1 gram of powder), in flowing deionized water in a 10 gallon tank.

<sup>4</sup> Measured on a Brookfield viscometer, Model LV, UL adapter, 60 rpm @ 25° C.