



(317) 346-4110 www.drainagesolutionsinc.com

WATER TRACING DYE FLT YELLOW/GREEN PRODUCTS

TECHNICAL DATA BULLETIN

Bright Dyes Yellow/Green products are specially formulated versions of Xanthene dye, certified by NSF International to ANSI/NSF Standard 60 for use in drinking water. This dye is the traditional fluorescent water tracing and leak detection material and has been used for labeling studies from the beginning of the century. It may be detected visually, by UV light and by appropriate fluoremetric equipment. Today it is most often used visually. This dye has been used by the military to mark downed pilots for search and rescue operations over large water bodies. Visually the dye appears yellow/green, depending on its concentration and under UV light as lime green.

Based on biochemical oxygen demand (BOD) studies, the dye is biodegradable with 65% of the available oxygen consumed in 7 days. The dye is resistant to absorption on most suspended matter in fresh and salt water. However, compared to Bright Dyes FWT Red products it is significantly less resistant to degradation by sunlight and when used in fluoremetry, stands out much less clearly against background fluorescence. As alwayss the suitability of these products for any specific application should be evaluated by a qualified hydrologist or other industry professional. Store product out of sunlight, in a cool and dry location. Shelf life is 4 years from date of purchase.

| General Properties | Tablets | Liquids | Powders |
|---|------------------------|----------------------------|-----------------|
| Detectability of active ingredient ¹ | Visual <100 ppb | Visual <100 ppb | Visual <100 ppb |
| Maximum absorbance wavelength ² | 490/520 nm | 490/520 nm | 490/520 nm |
| Appearance | Orange convex | Reddish, brown | Orange fine |
| | 1.6cm diameter | aqueous solution | powder |
| NSF (Max use level in potable water) | 6.0 ppb | 10.0 ppb | 1.0 ppb |
| Weight | 1.35 gms <u>+</u> 0.05 | | |
| Dissolution Time ³ | 50% < 3 minutes | | 50% < 3 minutes |
| | 95% < 6 minutes | | 95% < 6 minutes |
| Specific Gravity | | 1.05 <u>+</u> 0.05 @ 25° C | |
| Viscosity ⁴ | | 1.8 cps | |
| pH | | 8.5 <u>+ 0</u> .5 @ 25° C | |

| Coverage of Products | One Tablet | One Pint Liquid | One Pound Powder |
|----------------------|-------------|-----------------|---------------------|
| Light Visual | 605 gallons | 125,000 gallons | 1,200,000 gallons |
| Strong Visual | 60 gallons | 12,500 gallons | 120,000 gallons |

Caution: These products may cause irritation and/or staining if allowed to come in contact wit 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.

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

² No significant change in fluorescence between 6 and 11 pH.

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

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