

TECHNICAL DATA BULLETIN

Kingscote Chemicals **Harbor Bosun™** Yellow/Green Products are especially 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 ultra-violet light and by appropriate fluorometric equipment. It has been used by the military to mark downed pilots for search and rescue operations over large water bodies. Visually the dye appears as yellow-green, depending on its concentration, and under ultra-violet light, as bright lime green.

Harbor Bosun™ is resistant to adsorption on most suspended matter in fresh and salt water. Based on biochemical oxygen demand (BOD) studies, the dye is biodegradable with 65% of the available oxygen consumed in 7 days. Harbor Bosun™ is also sensitive to sunlight and subsequent degradation.

GENERAL PROPERTIES

Harbor Bosun™ Yellow/Green products are specially formulated versions of Xanthene dye, certified by NSF International to ANSI/NSF Standard 60 for use in drinking water. It may be detected visually, by UV light and by appropriate fluorometric 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.

Harbor Bosun™ is resistant to absorption on most suspended matter in fresh and salt water. Based on biochemical oxygen demand (BOD) studies, the dye is biodegradable with 65% of the available oxygen consumed in 7 days. Harbor Bosun™ is also sensitive to sunlight and subsequent degradation.

General Properties	Tablets	Liquids
Detectability of active ingredient (1)	Visual <100ppb	Visual <100ppb
Maximum Absorbance Wavelength (2)	490/520 nm	490/520 nm
Appearance	Orange Convex 1.6cm diameter	Reddish, brown aqueous solution
NSF (Max use of level in potable water)	6.0ppb	10.0ppb
Weight	1.35 gms ± 0.05	
Dissolution Time (3)	50% <3 minutes 95% <6 minutes	Immediate
Specific Gravity		1.05 ± 0.05 @ 25 C
Viscosity (4)		1.8 cps
pH		8.5 ± 0.5 @ 25 C
Coverage of Products	Tablets	Liquids
Visual	3-4 / 60 gallons	1 oz. - 2500 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.

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.