SUNBELT CORPORATION
Our dyes make your colors

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Sunbelt Corporation Dyes for Water Tracing

One of the properties that makes some water-soluble fluorescent dyes ideal for water tracing is the fact that their emissions of color can still be seen when irradiated with UV light even when the dye concentrations are too low to produce color in visible light. Not only then does the dye have a dramatic glow that is easily detected and quantified in low concentrations, but also it does not greatly affect the natural color of the water.

Sunbelt Corporation offers the following dyes specifically for water tracing. They may be used to trace the flow of water in lakes, rivers, underground streams, springs, estuaries, tidal basins, and other natural bodies of water. Additionally, they may be used in water lines, storage tanks, and cooling towers to gauge the infiltration of soil with waster waters from industrial sources. **Note:** The strengths of fluorescent emissions are related to temperature. Therefore when using fluorescent emissions to gauge dye concentrations, all testing must be performed under identical temperatures and conditions. Listed below are the dyes that Sunbelt offers for water tracing.

Navilan® Yellow 73: Color Index is Acid Yellow 73. Sunbelt has this dye available in powder and liquid forms. It is a bright yellow under visible light, and a distinctively characteristic greenish yellow when viewed under UV light.

Navilan Red 388 Liquid: Color Index is Acid Red 388, it is a brilliant magenta, rhodamine complexed dye that has a slight yet distinctive fluorescence under UV light.

Morplas Green 7: Color Index is Solvent Green 7. It is a pyranine shade yellowish green under UV light. Morplas Green 7 is very water-soluble and is available in powder form only. It is extremely fluorescent at low levels and only slightly affected by suspended organic matter.

Recommended Concentrations:

Sunbelt Corporation's water tracing dyes can be detected by the eye in open lakes or in seawater as marker buoy in concentrations as low as 1 part per million (ppm). In actual practice we suggest that tracings start with at least 10 ppm of the powders and 30-40 ppm for the liquids, so as to allow for dilution factors and other optical impediments.

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The following data from a study released by the U.S. Geological Survey gives the amount of dye required for 10 ppm for varying amounts of water in gallons and in cubic feet.

Gallons	Cubic Feet	Pounds of Dye
12,000	1,604	1.0
24,000	3,208	2.0
60,000	8,021	5.0
100,000	13,368	8.5
120,000	16,042	10.0

Please feel free to contact the Sunbelt Corporation Technical center at (973) 633-1633 for more information, technical data sheets, and/or samples of these dyes.