Dyes for Water Tracing

Water Tracing

One of the properties that makes some water-soluble fluorescent dyes ideal for water tracing is the fact that their emissions can be seen when irradiated with UV light when the dye concentrations 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 it doesn’t greatly affect the natural color of the water.

**Keystone Aniline 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 lines, storage tanks, cooling towers and to gauge the infiltration of soil with waste waters from industrial sources. **Note:** The strengths of fluorescent emissions are related to temperature. Therefore when using fluorescent emissions to gauge concentration, all tests must be performed under identical temperature and conditions. For samples call 1-800-522-4DYE.

**Keystone Uranine**, Color Index, Acid Yellow 73, is available in both a powder and liquid form. It is fluorescent yellow in hue with a distinctively characteristic green fluorescence when viewed under ultra-violet.

**Keystone Rhodamine WT Liquid**, Color Index, Acid Red 388, is a brilliant magenta red and practically identical in hue to the Rhodamine B, with slight fluorescence.

**Keystone Pyranine 10G**, Color Index Sol. Green 7, is available in a powder form only. It is extremely fluorescent and is only slightly affected by suspended organic matter.

**Recommended Concentrations:**

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

…Changing the way you think about Color

**Disclaimer:**

These data were obtained by testing according to our methods, with any necessary test deviations. Other test methods may give different results. Incoming evaluations, by the customer are therefore unconditionally recommended. The use and application of our colorants and information included is without any warranty, whether expressed or implied, verbal or written. No statements of recommendation contained in this product literature are to be construed as inducement to infringe on any relevant patent now or hereafter in existence.

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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 cubic feet.

<table>
<thead>
<tr>
<th>Gallons</th>
<th>Cubic Feet</th>
<th>Pounds of Dye</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,000</td>
<td>1,604</td>
<td>1.0</td>
</tr>
<tr>
<td>24,000</td>
<td>3,208</td>
<td>2.0</td>
</tr>
<tr>
<td>60,000</td>
<td>8,021</td>
<td>5.0</td>
</tr>
<tr>
<td>100,000</td>
<td>13,368</td>
<td>8.5</td>
</tr>
<tr>
<td>120,000</td>
<td>16,042</td>
<td>10.0</td>
</tr>
</tbody>
</table>

In addition to providing the most comprehensive line of colorants available, at Keystone Aniline Corporation we are committed to arming our customers with the best technical information to provide them with a competitive advantage in the world marketplace. Call 1-800-522-4DYE for samples or technical assistance.

Give us a call

As a Keystone Customer, you will have direct access to professionals who can answer technical questions and provide timely assistance. Please feel free to contact us for samples of our dyes, technical specifications, or for formulating assistance.

Keystone Aniline Corporation
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