AUTOMATE™ RED IKHF D-50

Description and Features

AUTOMATE RED IKHF D-50 is a single phase, liquid concentrated solvent soluble dye containing C.I. Solvent Red 164 and provided in a high flash, aromatic solvent system. The solvent is used in the product as a viscosity depressant and standardizing agent.

The product has been found to be completely miscible in all petroleum fuels, lubricating oils and many other related hydrocarbon solvents, including grease and hydraulic oils. Common applications include the coloration of fuels, solvents, polishes, fertilizers, explosives, adhesives and for leak detection. It can be mixed with other colors in the AUTOMATE product line to create a limitless number of shades.

The product is available in bung-type non-returnable steel containers in a 20 Kilogram and 181 Kilogram size.

Recommended Dosage

The following recommendations are provided as a starting point for typical applications. Actual dosage will depend on desired color strength as well as background color of the base material.

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Recommended Dosage</th>
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</thead>
<tbody>
<tr>
<td>Fuels</td>
<td>5 to 20 mg/l</td>
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<tr>
<td>Lubricants</td>
<td>50 to 200 mg/l</td>
</tr>
<tr>
<td>Greases</td>
<td>500 to 2000 mg/l</td>
</tr>
<tr>
<td>Inks</td>
<td>5 to 15%</td>
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</tbody>
</table>

Storage and Handling

Storage

The recommended storage temperature for this material is between 10 and 40°C. Exposure to excessively low temperatures should be avoided as it may cause increased levels of precipitation. The product should also be stored away from excessive heat sources or ignition sources.
If product containers are kept sealed and dry and extreme temperatures are avoided the shelf life of the material is greater than 3 years. The container should be tightly closed when not in use in order to prevent solvent evaporation.

Handling

AUTOMATE RED IKHF D-50 has been formulated to accommodate handling at temperatures down to 0°C. To ensure pumpability at temperatures below this we recommend diluting the product with an aromatic solvent.

Any piping, fittings, valves, filters, metering pumps, etc. should have wetted parts compatible with that of a naphthalene depleted heavy aromatic solvent system.

Material Safety Data Sheet

Rohm and Haas Material Safety Data Sheets (MSDS) contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Under the OSHA Hazard Communication Standard, workers must have access to and understand MSDS on all hazardous substances to which they are exposed. Thus it is important that you provide appropriate training and information to your employees and make sure they have available to them an MSDS on any hazardous product in the workplace.

We recommend that you obtain copies of the MSDS from your local Rohm and Haas technical representative or from the sales office nearest to you, before using our products in your facilities.

Upon initial shipment of non-OSHA-hazardous and OSHA-hazardous products (including samples), Rohm and Haas Company sends the appropriate MSDS to the recipient. If you do not have access to one of these MSDS, please contact your local Rohm and Haas representative for a copy. Updated MSDS are sent upon revision to all customers of record. MSDS are also sent annually to all customers receiving products deemed hazardous under the Superfund Amendments and Reauthorization Act (SARA). MSDS should be obtained from suppliers of other materials recommended in this bulletin.

Rohm and Haas Company is a member of the American Chemistry Council (ACC) and is committed to the ACC’s Responsible Care® Program.

Registrations

All of the components in AUTOMATE RED IKHF D-50 are registered with:

| TSCA (USA) | EINECS (EU) | DSL (Canada) |
| MITI (Japan) | Australia | China |
| Korea | New Zealand | Philippines |

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