# DD-5-0954

## General information

**General description:**

- Daylight and ultra-violet responsive fluorescent red tracer dye for coloration of oils.
- Soluble in organic solvents and oils.

**Applications:**

- Intended to color petroleum derivates, paraffin oils & waxes, lubricating oils & greases, industrial & technical vegetable-based oils, leak detection, refrigerators and non-destructive crack detection.

**Standard color:**

| *Product name* | *Description* |
|---|---|
| DD-5-0954 | Red |

**Packaging:**
1 Metal pail = 15kg
MOQ = 15kg

**Product features and benefits**

- Cost effective tracer dye with lower detection limit than non-fluorescent counterparts.
- DD-5-0954 is compatible with lubricant and refrigerant systems giving them strong fluorescent response allowing very low final concentrations of the dye in the used oils to pin-point any present leak.
- DD-5-0954 can be used to improve the product appearance or marking for taxation purposes.
- DD-5-0954 Red might be mixed with CFS-0-06 Yellow to create intermediate shades.



## Technical information

| **Physical properties** | |
|---|---|
| Appearance | Dark red oil (liquid) |
| Hue | Bright pinkish red |
| Flash point | 205°C |
| Water content | <0,1% |
| Density | 0,82g/cm³ |

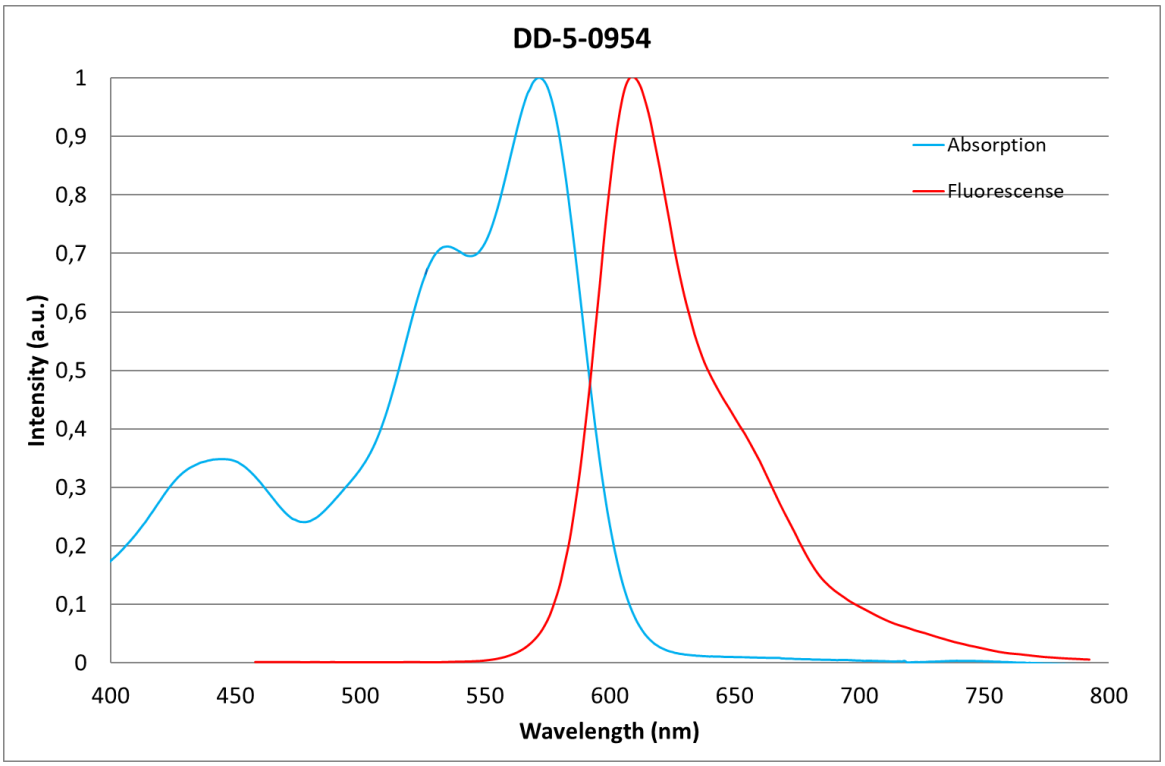
| **Processing** | |
|---|---|
| Heat stability | Not recommended for coloring plastics, but good tool to test heat stability - no considerable change in color after 5min @ 280°C in HDPE chips (0,2% load). |

**Storage & shelf life:**
24 months after production date when kept in closed original packaging in a dark, dry place at ambient temperature.

**Safety & regulatory:**
Safety Data Sheet available on request.

## Absorption and Fluorescence

Absorption: λ-max (0,1% in mineral oil) = 572nm
Fluorescence: λ-max (0.1% in mineral oil) = 610nm (excitation at 400nm)




As the fluorescence intensity depends on the used lamp, we recommend broad spectrum lamps, which provide visible violet and blue light as well as long wave UV light. This is due to the excitation areas of DD-5-0954 Red. Best illuminating light: 525-575nm.

## Solubility

| Fluid | Soluble |
|---|---|
| Polymerised castor oil | Yes |
| Ricinoleic acid | Yes |
| Mineral oil (Marcol 152) | Yes |
| Acetone | No |
| Ethylacetate | Yes |
| MMA | Yes |
| DIDP | Yes |
| White Spirit | Yes |
| DMF | No |
| Alkyd or acrylic resins | Yes |
| Olefins and other plastics | Yes |
| Refrigerator oil | Yes |

**Test method**
A concentration of 1g/100ml is dissolved in the listed fluids at room temperature to check the solubility. After stirring 30 minutes, the solubility is visually evaluated.

As a formulation contains mostly different substances, it is impossible to generalize. We recommend to check the solubility of the fluorescent tracer dye in your formulation.



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## Concentration in final application

Depending on the application, used illumination light, the background (light or dark), the used carrier (oil, solvent, wax, olefin, etc.), the recommended concentration will differ. For oil marking a final concentration of 0,03% is common. On the photo on the right a concentration of 0,1% DD-5-0954 Red in white mineral oil has been illuminated with a D65 (white daylight).