

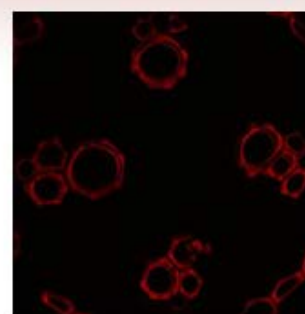
**MOIL-30NF2 - February 10, 2017**

Item # MOIL-30NF2 was discontinued on February 10, 2017. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

**MICROSCOPE IMMERSION OILS**

- ▶ Designed for Use with Oil Immersion Objectives
- ▶ Low Autofluorescence Oils Increase Image Contrast
- ▶ Ideal for Fluorescence and Multiphoton Imaging

## Application Idea



Fluorescence Image of Buttercup Root Taken with MOIL-30NF2 Immersion Oil Using a 40X, 1.3 NA Objective



**MOIL-30**  
Olympus Type F  
Immersion Oil



**MOIL-30NF2**  
Nikon Type NF2 Immersion Oil



**MOIL-10LF**  
Leica Type F Immersion Oil

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**OVERVIEW****Features**

- Oils for Use with Oil Immersion Objectives
- Very Low Autofluorescence Oils are Optimized for Fluorescence Microscopy
- Non-Drying and Polychlorinated Biphenyl (PCB) Free

These Microscope Immersion Oils are designed for use with Oil Immersion

Microscope Objectives. Placing an oil medium between the front surface of the objective and the cover glass allows the objective to achieve a high numerical aperture, maximizing light collection by the objective. To minimize refraction of light from the sample, the refractive indices of immersion oils are very close to those of cover glass. Thorlabs offers immersion oils with refractive indices of 1.515 or 1.518.

Immersion oils are available with low or very low autofluorescence. Autofluorescence is the natural fluorescence emission of the oil when exposed to light. Each immersion oil has a different level of background emission, which either increases or decreases the contrast of the image; oils with very low autofluorescence are optimized for use in sensitive or UV fluorescence microscopy applications.

| Item #                              | MOIL-50NA              | MOIL-30NF2             | MOIL-30                | MOIL-20LN              | MOIL-10LF              |
|-------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| <b>Refractive Index<sup>a</sup></b> | 1.515 <sup>b</sup>     |                        | 1.518 <sup>c</sup>     |                        |                        |
| <b>Abbe Number<sup>a</sup></b>      | 41 <sup>b</sup>        | 43 <sup>b</sup>        | 40.8 <sup>c</sup>      | 42.1 <sup>c</sup>      | 45.8 <sup>c</sup>      |
| <b>Type</b>                         | Nikon Type A           | Nikon Type NF2         | Olympus Type F         | Leica Type N           | Leica Type F           |
| <b>Viscosity<sup>a</sup></b>        | 150 mm <sup>2</sup> /s | 450 mm <sup>2</sup> /s | 450 mm <sup>2</sup> /s | 825 mm <sup>2</sup> /s | 435 mm <sup>2</sup> /s |
| <b>Autofluorescence</b>             | Low                    | Very Low               | Low                    | Low                    | Very Low               |
| <b>Volume</b>                       | 50 mL                  | 30 mL                  | 30 mL / 28 g           | 20 mL                  | 10 mL                  |

- These values are specified at 23 °C. 1 mm<sup>2</sup>/s = 1 cSt
- Specified at 587.6 nm
- Specified at 546.1 nm

[Hide Part Numbers](#)

| Part Number | Description   | Price    | Availability |
|-------------|---|----------|--------------|
| MOIL-50NA   | Low Autofluorescence Immersion Oil, n = 1.515, Nikon Type A, 50 mL        | \$48.50  | Lead Time    |
| MOIL-30NF2  | Very Low Autofluorescence Immersion Oil, n = 1.515, Nikon Type NF2, 30 mL | \$198.00 | Lead Time    |
| MOIL-30     | Low Autofluorescence Immersion Oil, n = 1.518, Olympus Type F, 30 mL      | \$53.25  | Today        |
| MOIL-20LN   | Low Autofluorescence Immersion Oil, n = 1.518, Leica Type N, 20 mL        | \$61.25  | Today        |
| MOIL-10LF   | Very Low Autofluorescence Immersion Oil, n = 1.518, Leica Type F, 10 mL   | \$47.25  | Today        |