

**MOIL-50NN - October 30, 2017**

Item # MOIL-50NN was discontinued on October 30, 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



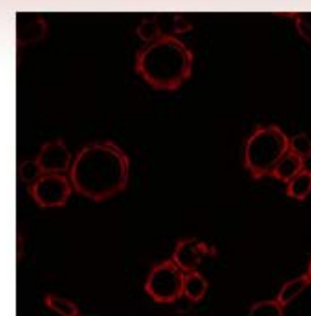
**MOIL-30**  
Olympus Type F  
Immersion Oil



**MOIL-20LN**  
Leica Type N Immersion Oil



**MOIL-30NF**  
Nikon Type F Immersion Oil



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

**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 index of each immersion oil is very close to those of cover glass.

Item #	MOIL-30	MOIL-50NN	MOIL-30NF	MOIL-20LN	MOIL-10LF
<b>Refractive Index<sup>a</sup></b>	1.518 at 546.1 nm				
<b>Abbe Number<sup>a</sup> (at 546.1 nm)</b>	40.8	41	41	42.1	45.8
<b>Type</b>	Olympus Type F	Nikon Type N	Nikon Type F	Leica Type N	Leica Type F
<b>Viscosity<sup>a,b</sup></b>	450 mm <sup>2</sup> /s	150 mm <sup>2</sup> /s	410 mm <sup>2</sup> /s	825 mm <sup>2</sup> /s	435 mm <sup>2</sup> /s
<b>Autofluorescence</b>	Low	Low	Very Low	Low	Very Low
<b>Volume</b>	30 mL / 28 g	50 mL	30 mL	20 mL	10 mL

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

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.

To clean immersion objectives after use with immersion oils, use a soft optical cleaning tissue such as our KW32 Kimwipes.

Part Number	Description	Price	Availability
MOIL-30	Low Autofluorescence Immersion Oil, n = 1.518, Olympus Type F, 30 mL	\$53.25	Today
MOIL-50NN	Low Autofluorescence Immersion Oil, n = 1.518, Nikon Type N, 50 mL	\$49.00	Lead Time
MOIL-30NF	Very Low Autofluorescence Immersion Oil, n = 1.518, Nikon Type F, 30 mL	\$198.00	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