Thymol Blue

There are uses for the adaptable dye thymol blue sodium salt in both chemistry and biology. Staining fatty acids is one of its main applications. When it interacts with fatty acids, a color shift occurs that can be used to detect or measure the amount of fatty acids in a sample. Although the precise mechanism of this interaction is still being studied, non-covalent interactions between the dye and the molecules of fatty acids are probably involved. Thymol blue is useful in a variety of study fields, including biochemistry and lipid analysis.

Cat. Number	ASC-1036
CAS Number	76-61-9
MDL Number	MFCD00005869
PubChem	310280971
Molecular Weight	466.60 g/mol
Molecular Formula	$C_{27}H_{30}O_5S$
Storage Temperature	+20°C
Form and Color	Powder, Dark Green to Brown or Black
pH Transition Range(s)	1.2 - 2.8 (Red-Greenish Yellow) 7.8 - 9.5 (Greenish Yellow-Blue)
Solubility (0.1% in ethanol)	Clear Solution
Wavelength(s) of Maximum Absorption	λ1: 431 - 436 nm (pH 7.8) λ2: 594 - 598 nm (pH 9.5)
Absorptivity (E1%, 1cm cell)	≥ 200 (pH 7.8, λ1) ≥ 450 (pH 9.5, λ2)
Loss on Drying	≤ 3.0%
Dye Content	≥ 95.0%