Neutral Red

Neutral red is a versatile dye with applications in both histology and microbiology. As a pH indicator, it changes color from red to yellow within a specific pH range (typically 6.8-8.0). This property makes it valuable in microbiology for differentiating bacteria based on their ability to ferment. In MacConkey agar, for example, neutral red along with lactose helps identify lactose fermenters. When bacteria ferment lactose, they produce lactic acid, lowering the surrounding pH. This acidic environment causes the neutral red to remain red in lactose-fermenting colonies, contrasting with the pale colonies of non-fermenters where the neutral red appears yellow due to the higher pH.

Cat. Number	ASC-1035
CAS Number	553-24-2
MDL Number	MFCD00012651
PubChem	310277720
Molecular Weight	288.78 g/mol
Molecular Formula	$C_{15}H_{17}ClN_4$
Storage Temperature	+20°C
Form and Color	Powder, Green, Brown or Black
Solubility (0.1% in 50% EtOH + 2ml HOAc)	Clear, Red Solution
Wavelength of Maximum Absorption (λmax)	535.0 - 545.0 nm
Absorptivity (1%/1cm)	≥ 1350 (at λmax)
Loss on Drying	≤ 10.0% (1h, 110°C)
Dye Content (Spectrophotometry)	≥ 90.0%