Rose Bengal

Biological stain

Rose Bengal is used in yeast and molds culture media. This dye suppresses the growth of bacteria and taken by yeasts and molds to help recognizing them easily.
Rose Bengal undergoes photo-degradation and produces toxic chemicals for fungi so it should keep away from light.
Rose Bengal has a red color but in an oxidation-reduction reaction with dinucleotide phosphate, it undergoes a color change from red to blue.
Rose Bengal has a high affinity for binding to bacterial DNA. This dye can bind to gram-positive bacterial cell wall so it can be used as a diagnostic agent. Cytotoxic effects of Rose Bengal on human leukemia HL-60 cells are proven.

Cat. Number	ASC-1014
CAS Number	632-69-9
MDL Number	MFCD00005043
Color Index	45440
PubChem	310279775
Molecular Weight	1017.65 gr/mol
Molecular Formula	$C^{20}H_2Cl_4I_4Na_2O_5$
Storage Temperature / Condition 20 °C	Keep away from strong oxidizing agents.
Form and Color	Powder / Red to brown
Dye Content	≥ 80 %
Solution Appearance	Red to dark red solution
Solubility	Soluble in Water
Wavelength of Maximum Absorption	540 - 550 nm (in water + 1ml 1% Na2CO3)
Absorptivity (1%/1cm)	≥ 750 (λ max)
Loss on Drying	≤ 10 %