Indicators

pH range	Color change	Indicator name	pK_a
0.2-1.8	yellow to blue/green	Malachite Green	1.30
0.2-1.8	yellow to blue	Methyl Green	
1.2-2.4	red to yellow	Metanil Yellow	
1.2-2.8	red to yellow	Metacresol Purple	1.51
1.2-2.8	red to yellow	Thymol Blue	1.65
1.4-2.8	red to yellow	Orange IV	
1.4-3.2	colorless to red	Quinaldine Red	2.63
3.2-4.4	red to yellow	Methyl Orange	3.46
3.0-4.6	yellow to blue	Bromophenol Blue	4.10
3.4-4.8	red to yellow	Ethyl Orange	4.34
3.8-5.4	yellow to blue	Bromocresol Green	4.90
4.8-6.0	red to yellow	Methyl Red	5.00
4.0-5.8	colorless to red	Ethyl Red	5.42
4.8-6.6	red to yellow	Propyl Red	5.48
5.2-6.8	yellow to red	Chlorophenol Red	6.25
5.2-6.8	yellow to purple	Bromocresol Purple	6.40
5.4-6.6	colorless to yellow	*p*-Nitrophenol	7.15
5.6-7.2	yellow to red	Alizarin	
6.0-7.6	yellow to blue	Bromothymol Blue	7.30
6.6-7.8	yellow to red	Brilliant Yellow	
6.6-8.0	yellow to red	Phenol Red	8.00
6.8-8.6	colorless to yellow	*m*-Nitrophenol	8.28
7.4-9.0	yellow to purple	Metacresol Purple	8.30
7.0-8.8	yellow to red	Cresol Red	8.46
8.0-9.6	yellow to blue	Thymol Blue	9.20
8.2-9.8	colorless to red	o-Cresolphthalein	
8.2-10.0	colorless to pink	Phenolphthalein	9.50
9.4-10.6	colorless to blue	Thymolphthalein	
10.1-12.0	yellow to red	Alizarin Yellow R	

11.2-13.0	colorless to orange	2,4,6-Trinitrotoluene	
12.0-14.0	colorless to orange	1,3,5-Trinitrobenzene	
12.2-13.2	yellow to amber	Clayton Yellow	

Reference: *CRC Handbook of Chemistry and Physics*, 2007