

RE-FORM ASSAY KIT DIRECTIONS

CATALOG # 201

The assay kit can be used for quality control of newly made formalin or to assay recycled formalin.

1. Pipet 10.0 ml deionized or distilled water into a 50 ml glass beaker.
2. Add approximately 1 gram SULFITE (Item A) to the water. Measuring one level spoonful of dry granules using the spoon included with this kit will provide sufficient accuracy.
3. Mix on a magnetic stirplate with stirbar until sulfite is dissolved.
4. While solution is stirring, add 2 drops of INDICATOR (Item B).
5. Then, pipet 0.20 ml of the formalin to be assayed into the beaker. The sulfite solution will turn dark blue.
6. Fill a serological pipet with 10.0 ml ACID (Item C). Add the acid dropwise into the beaker until the blue color changes to canary yellow.
7. Record the volume of acid used.
8. Use the table on reverse side of this card to determine the formalin content. Make adjustments using either concentrated (37%) formaldehyde or deionized/distilled water, if necessary, to bring into the proper range of 9.0–10.9%.

DETERMINATION AND ADJUSTMENT OF FORMALIN CONTENT AFTER THE ASSAY

I	II	III	IV
ml acid titrated	percent formalin	milliliters of 37% formaldehyde to add	milliliters of water to add
1.1–1.3	3	1,330	–
1.4–1.6	4	1,140	–
1.7–1.9	5	950	–
2.0–2.2	6	760	–
2.3–2.6	7	570	–
2.7–2.9	8	380	–
3.0–3.5	9.0–10.9	No adjustment	
3.6–3.8	11	–	1,893
3.9–4.2	12	–	3,785
4.3–4.5	13	–	5,678
4.6–4.8	14	–	7,570
4.9–5.1	15	–	9,463
5.2–5.4	16	–	11,355
5.5–5.8	17	–	13,248
5.9–6.1	18	–	15,140
6.2–6.4	19	–	17,033
6.5–6.7	20	–	18,925

Note: Adjustment amounts in columns III & IV are based upon a 19 liter (5 gallon) batch. Scale these numbers up or down proportionately based on final batch size, e.g., for a 15 liter batch, multiply the recommended adjustment volumes by 0.78 ($15/19 = 0.78$ conversion factor).