

## Buffer Solution Making Process

Version: FR001

### Formula:

For 100L buffer solution making:

6g/L Tris base

10g/L Casein Sodium Salt

35g/L NaCl

0.5% Tween20

0.05% Proclin 300

pH8.0

Concentrated hydrochloric acid (HCl)

### Materials & equipment:

1. Above chemicals
2. Mixing tank: 150L ~ 200L
3. Electronic scale, capacity >200kg
4. Mixer (air type)
5. pH meter

### Mix process as below:

1. Place mixing tank on electronic scale, mark down its weight
2. Add 70kg ultra-pure water
3. Add 600g Tris base
4. Add 3500g NaCl
5. Start mixer to stir until all dissolved
6. While mixing, adding Casein 1000g to stir until all dissolved
7. Keep mixing, slowly adding 500g Tween20
8. Insert pH meter to liquid and check pH value
9. Slowly adding HCl till pH between 7.9~8.1
10. Add ultra-pure water till total liquid volume 100L
11. Add 0.05% Proclin 300
12. Buffer making finish