



## Product Information Sheet

# T8050 TAP(Tris-Acetate-Phosphate) Solution (1X)

Synonym: TAP

### Properties:

Form: Liquid  
Appearance: Clear and Colorless  
Application: Freshwater algal culture  
Solubility: Miscible with Water  
Typical Working Concentration: 1 L  
Storage Temp: 2-6°C  
Storage Temp of Stock Solution: N/A  
Biological Assay: Algal culture tested with *Chlamydomonas reinhardtii*

### Formula (mg/L):

Ammonium Chloride	400.0	Ferrous Sulfate•7H <sub>2</sub> O	4.990
Tris-Base	2420	Magnesium Sulfate, Anhydrous	48.83
Ammonium Molybdate•4H <sub>2</sub> O	1.100	Manganese Chloride•4H <sub>2</sub> O	5.060
Boric Acid	11.40	Potassium Phosphate, Dibasic	108.0
Calcium Chloride, Anhydrous	37.74	Potassium Phosphate, Monobasic	54.00
Cobalt Chloride•6H <sub>2</sub> O	1.610	Zinc Sulfate•7H <sub>2</sub> O	22.00
Cupric Sulfate•5H <sub>2</sub> O	1.570	Glacial Acetic Acid	1 mL
EDTA, Disodium Salt	50.00		

### Application Notes:

Tris-acetate-phosphate medium (TAP) is a standard maintenance medium often used for *Chlamydomonas reinhardtii*, the most well-characterized eukaryotic freshwater algae. Ammonium (NH<sub>4</sub><sup>+</sup>) serves as the primary nitrogen source and Tris buffers the pH. Since TAP contains a relatively low concentration of phosphate, it can be used for <sup>32</sup>P labeling as well as experiments/isolations that require clarity of solid-substrate cultures (e.g. agar) (Harris 1989).

T8050 is a complete medium containing 17.4 mM of acetate with pH adjusted to 7.0 +/- 0.1.

PhytoTechnology Laboratories® also carries TAP powder, Product No.T8224.

### References:

Gorman, D.S., and R.P. Levine (1965) Proc. Natl. Acad. Sci. USA 54, 1665-1669.  
Harris, E.H. (1989): The *Chlamydomonas* sourcebook: a comprehensive guide to biology and laboratory use. Academic Press, San Diego, 780pp.

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