

YSI 9300 / 9500 reagent instructions

Magnecol (YAP193L)

On the 9300 and 9500 photometers, magnesium (Magnecol) test samples will be run on the **Transmittance Mode (570 wavelength)** following the updated liquid reagent instructions outlined below.

1. Select the program from the main menu (Phot 000).

Prepare your blank

If your sample range is 0-10 mg/L Mg:

2. Add 10 mL of sample to photometer tube
3. Insert into the cell holder and "Blank"

Continue to step 5.

If your sample range is 10-50 mg/L Mg:

2. Add 2 mL of sample to photometer tube
3. Fill to the 10 mL line of the photometer tube with deionized water
4. Place in the cell holder and "Blank"

Prepare your sample

5. Add 12 drops of Magnecol liquid Reagent 1 and stir
6. Add 6 drops of Magnecol liquid Reagent 2 and stir
7. Add a Magnecol tablet. Crush and stir until fully dissolved
8. Set timer to 2 minutes
9. Place the photometer tube in cell holder and "Read"

Result in mg/L (from %T)

10. Scroll to **570 nm** transmittance. Use the provided look-up tables to correlate your %T result to the magnesium value in mg/L. Please round to the nearest %T percent when selecting your mg/L value. The %T row values represent the ones place, and the %T column values represent the tens place.

Example: Using the low range method (0-10 mg/L Mg), a %T value of 46.7% is equivalent to 3.22 mg/L Mg. 46.7% is rounded to 47%. Use the 40 row and the 7 column to determine the result in mg/L Mg.

Magnecol 0-10 mg/L				mg/L Mg				570 nm		
%T	9	8	7	6	5	4	3	2	1	0
50	--	--	--	--	--	0.35	0.76	1.17	1.58	1.99
40	2.40	2.81	3.22	3.63	4.04	4.45	4.86	5.27	5.68	6.09
30	6.50	6.91	7.32	7.73	8.14	8.55	8.96	9.37	9.78	--

Magnecol 10-50 mg/L				mg/L Mg				570 nm		
%T	9	8	7	6	5	4	3	2	1	0
50	--	--	--	--	--	--	--	--	--	9.97
40	12.02	14.07	16.12	18.17	20.22	22.26	24.31	26.36	28.41	30.46
30	32.51	34.56	36.61	38.66	40.71	42.75	44.80	46.85	48.90	--