



Recommended AQUA MAG[®] Blended Phosphate Dosages

For corrosion, iron and manganese sequestering, and maintenance, use the following formula:

1. Total Hardness divided by 342. This value will be called A.
2. Add iron and manganese and then divide by 2. This value will be called B.
3. Add values A and B to get the desired ppm PO₄ residual in the system.

For Example: Total Hardness 278

Iron 0.65

Manganese 0.23

$$278 \div 342 = 0.81 = A \quad \text{and} \quad (0.65 + 0.23) \div 2 = 0.44 = B$$

$$A + B = 1.25 \text{ ppm} \longrightarrow \text{This is our desired ppm PO}_4 \text{ residual in the distribution system.}$$

Now take 1.25×4.61 to give us gallons of AQUA MAG[®] per million gallons of water.

$$1.25 \times 4.61 = 5.76 \text{ or } 5.8 \text{ gallons AQUA MAG per million gallons of water.}$$

One may now use the calculated gallons of AQUA MAG per million gallons of water with the flow rate to calculate gallons of AQUA MAG per day.

Suppose a flow rate of 0.75 MGD.

Take gallons of AQUA MAG per million \times 0.75 MGD (flow rate) = gallons of AQUA MAG per day.

$$5.8 \text{ gallons per million gallons of water} \times 0.75 \text{ MGD} = 4.35 \text{ gallons of AQUA MAG per day.}$$

This gallons of AQUA MAG per day can now be used to adjust injection pumps accordingly to give the correct dosage of AQUA MAG into the distribution system.

Note: If one does not have a total hardness values and has only calcium and magnesium values, total hardness can be calculated from these two values. If you are unsure how to do this, you may call a Carus Chemical Company Technical Representative at (800) 435-6856 for this information.

If background phosphate is present, this must be accounted for.