

Hydroponic Special

Hydroponic Special 4-18-38^{PLUS} represents a basic formulation that the grower, through leaf analysis, can manipulate to provide virtually any combination of nutrient levels desired. Calcium Nitrate, Magnesium Sulfate, or any one of the minor elements can be added. Hydroponic Special contains all the necessary elements to provide the basic diet for Hydroponic Culture. Hydroponic Special can be used in gravel culture, sand culture, peatlite or any other type of growing media.

**MIXING RATE FOR
100 PPM NITROGEN**

HOSE END
SPRAYER: 1:15 ratio-
Premix 5 oz. per
gallon (37.5 grams
per litre).

TANK: 0.34 oz. per
gallon (2.5 grams per
litre).

PROPORTIONER:
1:100 ratio use 33.32
oz. per gal. of con-
centrate (250 grams
per litre).

OTHER RATIOS:
Multiply ratio times
weight divided by
100.

OTHER PPM: Multi-
ply desired PPM
times weight divided
by 100. Increase or
decrease PPMN
according to crop
response.

Guaranteed Analysis (For continuous liquid feeding)			
4-18-38+ Hydroponic Special	Percent	Lbs/Ton	Concentration at 200 PPM
Total Nitrogen (N)	4%	80	200 PPM as N
4.00% Nitrate Nitrogen			
Available Phosphate (P ₂ O ₅)	18%	360	900 PPM as P ₂ O ₅
Soluble Potash (K ₂ O)	38%	760	1950 PPM as K ₂ O
Sulphur (S)	6.1%	122	305 PPM as S
6.1% Combined Sulphur (S)			
Boron (B)	0.02%	0.40	1 PPM as B
Copper (Cu)	0.05%	1.00	2.50 PPM as Cu
0.05% Water Soluble Copper (Cu)			
Iron (Fe)	0.10%	2.00	5 PPM as Fe
0.10% Chelated Iron (Fe)			
Total Manganese (Mn)	0.06%	1.20	3 PPM as Mn
0.06% Water Soluble Manganese (Mn)			
Molybdenum (Mo)	0.0009%	.018	0.045 PPM as Mo
Zinc (Zn)	0.05%	1.00	2.50 PPM as Zn
0.05% Water Soluble Zinc (Zn)			

Derived from Potassium Nitrate, Potassium Sulfate, Potassium Phosphate, Borax, Sodium Molybdate, Iron EDTA, and the Sulfate form of Copper, Manganese and Zinc. Potential basicity equivalent to 138 lbs. Calcium Carbonate per ton.

Nitrogen Parts Per Million Chart				
Injector Ratio	Ounces required per Gallon of concentrate			
	100 PPM	150 PPM	200 PPM	300 PPM
1:50	16.66	24.99	33.32	49.98
1:100	33.32	49.98	66.64	99.96
1:150	49.98	74.97	99.96	149.94
1:200	66.64	99.96	133.28	199.92
1:300	99.96	149.94	199.92	299.88

Based on 1/2 gallon per square foot coverage.
Two Tablespoons equals One Ounce (approximately)
One Cup equals One Pound (approximately)

Conductivity of 4-18-38+ using distilled water mixed at: (allow +/- 10%)	
50 PPM Nitrogen =	.25 Millimhos/CM
100 PPM Nitrogen =	.49 Millimhos/CM
150 PPM Nitrogen =	.75 Millimhos/CM
200 PPM Nitrogen =	.99 Millimhos/CM
300 PPM Nitrogen =	1.49 Millimhos/CM
400 PPM Nitrogen =	1.99 Millimhos/CM
500 PPM Nitrogen =	2.48 Millimhos/CM