

M7 MEDIUM

PROTOCOL

- Add the stock solutions, and fill with ultrapure water to prepare 1L
- Autoclave

Reagent	Name	ml/L
KNO ₃	Potassium Nitrate	10 ml
MgSO ₄ .7H ₂ O	Magnesium sulfate heptahydrate	10 ml
(NH ₄) ₂ HPO ₄	Diammonium hydrogen phosphate	5 ml
CaSO ₄	Calcium sulfate	10 ml
-	Soil Extract	20 ml
-	Micronutrients	5 ml
-	Vitamin B12*	1 ml

*Add after autoclaving.

Composition of stock Solutions:

Micronutrients solution 1

Reagent	Name	ml/L
H ₃ BO ₃	Boric acid	5 ml
MnCl ₂ .4H ₂ O	Manganese dichloride tetrahydrate	2 ml
ZnSO ₄ .7H ₂ O	Zinc Sulphate Heptahydrate	1 ml
Na ₂ MoO ₄ .2H ₂ O	-	5 ml
CuSO ₄ .5H ₂ O	Copper sulfate pentahydrate	1 ml
Co(NO ₃) ₂ .6H ₂ O	Cobalt(II) nitrate hexahydrate	5 ml

Micronutrients solution 2

Reagent	Name	g/L
FeSO ₄ .7H ₂ O	Iron(II)sulphate	0.7
EDTA	-	0.4

The two micronutrients solutions are made and autoclaved separately.

The composition of the basic solutions are available in the Z8 medium.

Soil Extract Solution 100g/1L

- Soil without pesticides,
- Add distilled water to the soil, mix it and let it boil for 1h

- After cooling down, discard the pellet, and store the supernatant
- Let the supernatant rest for 1h, filter the liquid through cotton to get the soil extract
- Centrifuge the soil extract 10 min, 4000 rpm until the color is transparent
- Autoclave the extract at least 2/3 days in a row
- Store in the at 4°C