

MOSS MEDIA

(Based on Essential Moss Methods, from the University of Leeds.)

Growth media:

stock solution B	2.5 ml
stock solution C	2.5 ml
stock solution D	2.5 ml
1x trace element solution	250 μ l
di-ammonium (+) tartrate (0.5 M)	2.5 ml
agar (Oxoid)	2 g
dH ₂ O	to 250 ml

Autoclave, then add 0.5 ml of 0.5 M CaCl₂ (filter sterilised). When media has cooled sufficiently, pour plates under sterile conditions. Plates can be stored at 4°C for about 1 month.

Stock solution B:

MgSO ₄ .7H ₂ O (magnesium sulphate 7-hydrate)	2.5 g
(or 1.2 g of anhydrous MgSO ₄)	
dH ₂ O	to 100 ml

Make several 2.5 ml aliquots, and store these and any remaining solution at -20°C.

Stock solution C:

KH ₂ PO ₄ (potassium phosphate)	2.5 g
dH ₂ O	to 50 ml

Adjust pH to 6.5 with minimal volume of 4 M KOH. Then make up to 100 ml with additional dH₂O. Make 2.5 ml aliquots (as above) and store at -20°C.

Stock solution D:

KNO ₃ (potassium nitrate)	10.1 g
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$\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ (iron sulphate 7-hydrate) dH ₂ O	0.125 g to 100 ml
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Make aliquots and store at -20°C (as above).

20x trace element solution:

H_3BO_3 (boric acid)	614 mg
$\text{AlK}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ (aluminium potassium sulphate 12-hydrate)	55 mg
$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ (cupric sulphate 5-hydrate)	55 mg
KBr (potassium bromide)	28 mg
LiCl (lithium chloride)	28 mg
$\text{MnCl}_2 \cdot 4\text{H}_2\text{O}$ (manganese chloride 4-hydrate)	389 mg
$\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$ (cobalt chloride)	55 mg
$\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$ (zinc sulphate 7-hydrate)	55 mg
KI (potassium iodide)	28 mg
$\text{SnCl}_2 \cdot 2\text{H}_2\text{O}$ dH ₂ O	28 mg to 50 ml

Solution will be cloudy at 20 x concentration. Shake thoroughly before making 1 ml aliquots. Store at -20°C . Remember to dilute to 1 x concentration before adding to growth media.

0.5 M di-ammonium (+) tartrate:

9.2 g in 100 ml dH₂O

Aliquot and store at -20°C .

0.5 M CaCl₂:

3.67g CaCl₂ in 50 ml dH₂O

Filter sterilise. Make 1 ml aliquots and store at -20°C .