

1831: SWES (Seawater - Soil Extract - Salts)

Final volume: 1000 ml

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|---|-------|----|
| KNO ₃ (19.0 g/l stock solution) | 10.50 | ml |
| K ₂ HPO ₄ (4.35 g/l stock solution) | 4.60 | ml |
| MgSO ₄ x 7 H ₂ O (7.5 g/l stock solution) | 2.70 | ml |
| Micronutrient Solution * | 5.00 | ml |
| Soil Extract ** | 30.00 | ml |

1. Make up to 1000 ml with filtered natural seawater.
2. Autoclave at 121 °C for 20 min.
3. Add aseptically after autoclaving:

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| Vitamin B ₁₂ (0.02 g/l stock solution, filter sterilised) | 250.00 | µl |
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Micronutrient Solution * (from medium 1831)

| | | |
|---|--------|----|
| Milli Q Water | 700.00 | ml |
| Fe SO ₄ x 7 H ₂ O (10.0 g/l stock solution) | 70.00 | ml |
| Na-EDTA x 2 H ₂ O (80.0 g/l stock solution) | 10.00 | ml |
| ZnSO ₄ x 7 H ₂ O (1.0 g/l stock solution) | 1.00 | ml |
| MnSO ₄ x 1 H ₂ O (0.76 g/l stock solution) | 2.00 | ml |
| H ₃ BO ₃ (2.0 g/l stock solution) | 5.00 | ml |
| Co(NO ₃) ₂ x 6 H ₂ O (5.0 g/l stock solution) | 0.20 | ml |
| Na ₂ MoO ₄ x 2 H ₂ O (0.2 g/l stock solution) | 5.00 | ml |
| CuSO ₄ x 5 H ₂ O (0.25 g/l stock solution) | 20.00 | µl |

1. Make up to 1000 ml with Milli Q water.
2. Prepare aliquots and store them at -20 °C.

Soil Extract ** (from medium 1831)

Preparation of soil extract: Fill a 1 litre Schott bottle one third with garden or leaf soil of medium, but not too high humus content. The soil must not contain fertilizers or plant protective agents. Success of soil extract depends on selection of suitable soils. Those with high clay content are usually less satisfactory. Make up with Milli Q water to 700 ml and sterilize by autoclaving for one hour twice in a 24 h interval. Separate the decanted extract from particles by centrifugation. Filter the supernatant through Whatman filter paper into a 1 litre Schott bottle, autoclave for 20 min at 121°C and store in the refrigerator. To prepare the medium, aseptically remove 30 ml of the soil extract.