

PHYTAMAX[™]
ORCHID MULTIPLICATION MEDIUM

This powder is extremely hygroscopic and must be protected from atmospheric moisture. Do not open the container until its contents are allowed to warm to room temperature. If possible the entire contents of the package should be used immediately after opening.

<u>Components:</u>	<u>mg/L</u>
Ammonium Nitrate.....	825.0
6-Benzylaminopurine	2.0
Boric Acid.....	3.10
Calcium Chloride Anhydrous.....	166.0
Cobalt Chloride Hexahydrate	0.0125
Cupric Sulfate Pentahydrate	0.0125
Disodium EDTA Dihydrate	37.240
Ferrous Sulfate Heptahydrate	27.850
Magnesium Sulfate Anhydrous	90.350
Manganese Sulfate.....	8.450
MES (Free Acid).....	1000.0
Myo-Inositol.....	100.0
α -Naphthaleneacetic Acid.....	0.50
Nicotinic Acid (Free Acid)	0.50
Peptone Type I.....	2000.0
Potassium Iodide.....	0.4150
Potassium Nitrate.....	950.0
Potassium Phosphate Monobasic.....	85.0
Pyridoxine Hydrochloride	0.50
Sodium Molybdate Dihydrate	0.1250
Thiamine Hydrochloride.....	1.0
Sucrose	20000.0
Zinc Sulfate Heptahydrate	5.30

25.3 g of powder are required to prepare 1 L of medium.

THIS PRODUCT IS INTENDED FOR LABORATORY USE ONLY.
NOT FOR DRUG, HOUSEHOLD, OR OTHER USES.

PREPARATION: Preparing this medium in a concentrated form is not recommended as some salt complexes may precipitate. Supplements may be added prior to sterilization or added aseptically to a sterile medium. Certain supplements (i.e. heat labile) may require filter sterilization and may affect the shelf life of the medium. The basic steps for preparing the culture medium are the following:

1. Using a container twice the size of the desired final volume, measure out approximately 90% of the final required volume of tissue culture grade water (e.g. Sigma Product No. W-3500). Example: 900 ml for a final volume of 1000 ml.
2. While stirring, add the powdered product.
3. Rinse the original container with a small volume of tissue culture grade water to remove traces of the powder. Add to the solution in Step 2.
4. Add desired supplements (e.g. gelling agent, etc.).
5. While stirring, adjust to the desired pH (e.g. 5.6 +/- 0.1) using KOH, NaOH, or HCl.
6. Add water to bring the medium to the final volume.
7. If a gelling agent is used, heat the solution to approx. 100° C while stirring.
8. Dispense the medium into culture vessels before or after autoclaving according to your application. Add heat labile constituents after autoclaving.
9. Sterilize the medium in a validated autoclave at 1Kg/cm² (15 psi). The medium should attain a temperature of 121° C for at least 15 min. Refer to the Sigma Plant Cell Culture Catalog for recommended autoclave times for different volumes.

STORAGE: All media preparations should be stored at 0-5° C. Store dry powder in a desiccator. Deterioration of powdered medium may be recognized by: 1) color change; 2) granulation, clumping, or particulate matter throughout the powder; 3) insolubility; 4) pH change; or 5) inability to promote growth when properly used.

The following information can be obtained from the Sigma Plant Cell Culture Catalog or by calling ext. 3952 at 1-800-521-8956 (USA) or 314-771-5765 (collect):

Manufacturing and testing specifications
Physical and chemical analysis
Biological performance testing

SPECIFICATIONS: Appearance: light yellow with light tan cast

Moisture content: < 5%

Solubility: Clear solution w/ faint yellow cast

(Heating may be required to dissolve powder)

pH +/- 0.5 at 25° C before adjustment: 5.0

SIGMA warrants that its products conform to the information contained in this and other Sigma publications. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.
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USA/Canada Telephone 1-800-325-3010

FAX 1-800-325-5052

Outside USA/Canada (call collect)

Telephone 314-771-5750

FAX 314-771-5757

FOR CUSTOMER SERVICE (shipping problem):

USA/Canada 1-800-325-8070

Outside USA/Canada (call collect) 314-771-5765

FOR TECHNICAL SERVICE:

USA 1-800-521-8956 ext. 3952

Outside USA (call collect) 314-771-5765 ext. 3952

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