

**PHYTAMAX™ ORCHID MEDIUM
WITH CHARCOAL AND BANANA POWDER**

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
Banana Powder (50% Malto-dextrin)	30000.0
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
Potassium Iodide	0.4150
Potassium Nitrate.....	950.0
Potassium Phosphate Monobasic.....	85.0
Sodium Molybdate Dihydrate	0.1250
Zinc Sulfate Heptahydrate.....	5.30
Charcoal.....	2000.0
MES (Free Acid)	1000.0
Myo-Inositol	100.0
Nicotinic Acid (Free Acid)	1.0
Peptone Type I.....	2000.0
Pyridoxine Hydrochloride.....	1.0
Sucrose	20000.0
Thiamine Hydrochloride	10.0

57.3 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 the 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 medium.

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
4. Add desired supplements (e.g. gelling agent, auxin, cytokinin, etc.).
5. While stirring, adjust the medium to the desired pH (e.g. 5.6 ∇ 0.1) using KOH, NaOH, or HCl.
6. Add additional tissue culture grade water to bring the medium to the final volume.
7. If 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 Kg/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) granulation, clumping, or particulate matter throughout the powder; 2) pH change; or 3) 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: Dark gray powder

Moisture content: < 5.0%

Solubility: Black suspension

pH ∇ 0.5 at RT: 5.1

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.

P-1056 3H218

.....
SIGMA CHEMICAL COMPANY, P.O. Box 14508, St. Louis, Missouri 63178 U.S.A. Telex: 910-761-0593 or 434475

TO ORDER:

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

SIGMA CHEMICAL CO. LTD., Fancy Road, Poole Dorset BH17 7NH, England * Tel: 0202 733114, 0800 373731 0800 447788 (customer svc) * Fax: Free 0800 378785 (orders)

SIGMA CHEMIE GmbH, Grünwalder Weg 30, W-8024 Deisenhofen, Deutschland * Telefon: 089/613 01-0 * Telefax: 0130-6490 Service Nummer: 0130-5155 (zum Nulltarif innerhalb Deutschlands)

SIGMA CHIMIE, L'Isle D'Abeau Chesnes, B.P. 701, 38297 St Quentin Fallavier, Cedex, France * Numéro Vert 05 21 14 08 Téléphone: 74 82 28 00 * Télécopier: 74 95 68 08

SIGMA QUIMICA, Apt. Correos 161, 28100 Alcobendas (Madrid) ESPAÑA * Telephone: 34-1-6619977 * Fax: 34-1-6619642

SIGMA CHIMICA, (Div. della Sigma-Aldrich S.r.l.) Via Gallarate 154, 20151 Milano ∇ Italia * Telefono: (02) 33417-310 * Fax: (02) 38010-737 * Numero Verde 1678-27018

SIGMA CHEMIE, P.O. Box 260, CH-9470 Buchs, Switzerland Telephone: 155 00 20 * Fax: 081 756 7420

SIGMA-ALDRICH PTY., LIMITED, Unit 2, 10 Anella Ave, Castle Hill NSW 2154, Australia * Free Tel: 008-800-097 * Tel: 02-899-9977 Free Fax: 008-800-096 * Fax 02-899-9742

SIGMA CHIMIE, K. Cardijnplein, 8, B-2880 Bornem, België/Belgique Free Tel: 078 11 47 47 * Tel: 03 889 13 01 * Free Fax: 078 11 47 45 * Fax: 03 899 13 11 * **From the Netherlands:** Free Tel: 06 022 47 48 * Free Fax: 06 022 47 45

SIGMA-ALDRICH CHEMICAL REPRESENTAÇOIS LTDA, Rua Sabará, 566 - Conj. 53, 01239-010 Sao Paulo, Sp, Brazil Tel: (011) 231 1866 * Fax: (011) 257 9079

SIGMA-ALDRICH s.r.o., Krizikova 27, 180 00 Praha 8, Czechoslovakia * Tel: 02 2366973 * Fax: 02 2364141

SIGMA-ALDRICH CORPORATION, B-4/158 Safdarjung Enclave, New Delhi-110 029, India * Tel: 671175

8 1993 Sigma Chemical Company