## Product Information Sheet

# G398
# Gamborg B-5 Basal Medium

### Properties:

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|---|---|
| Form: | Powder |
| Appearance: | White to Yellow Powder |
| Application: | Plant Tissue Culture |
| Solubility: | Water |
| Typical Working Concentration: | 3.21 g/L |
| Storage Temp: | 2-8°C |
| Storage Temp of Stock Solution: | Preparation of concentrated solutions is not recommended as insoluble precipitates may form. |
| Other Notes: | Contains the macro- and micronutrients and vitamins as described by Gamborg *et al*. (1968). pH = 3.5 – 4.5 |

### Formula [mg/L]:

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|---|---|
| Ammonium Sulfate | 134 |
| Boric Acid | 3 |
| Calcium Chloride, Anhydrous | 113.24 |
| Cobalt Chloride·6$H_2O$ | 0.025 |
| Cupric Sulfate·5$H_2O$ | 0.025 |
| Na2 EDTA·2$H_2O$ | 37.26 |
| Ferrous Sulfate·7$H_2O$ | 27.8 |
| Magnesium Sulfate, Anhydrous | 122.09 |
| Manganese Sulfate·$H_2O$ | 10 |
| Molybdic Acid (Sodium Salt)·2$H_2O$ | 0.25 |

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|---|---|
| Potassium Iodide | 0.75 |
| Potassium Nitrate | 2500 |
| Sodium Phosphate Monobasic | 150 |
| Zinc Sulfate·7$H_2O$ | 2 |
| *myo*-Inositol | 100 |
| Nicotinic Acid (Free Acid) | 1 |
| Pyridoxine·HCl | 1 |
| Thiamine·HCl | 10 |

### Application Notes:

Plant Species: Soybean (*Glycine max*)
This medium was developed for the initiation and growth of soybean cell suspensions. This medium contains no ammonium nitrate; it does contain ammonium sulfate and increased levels of potassium nitrate. Concentrations of $NH_4^+$ over 2 mM inhibited cell growth.

*Phyto*Technology Laboratories® also carries Gamborg B-5 Basal Salt Mixture (without vitamins) Product No. G768

Please Note: While *Phyto*Technology Laboratories® tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

### References:

Gamborg OL, Miller RA, and K Ojima (1968) Nutrient Requirements of suspension cultures of soybean root cells. *Exp. Cell Research* Vol. 50: 151-158.

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