

## G398

### Gamborg B-5 Basal Medium

#### Properties

Form:	Powder
Appearance:	White to Yellow Powder
Application:	Plant Tissue Culture
Solubility:	Water
Typical Working Concentration:	3.21 g/L
Storage Temp:	2 – 6° 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)

Ammonium Sulfate	134
Boric Acid	3
Calcium Chloride, Anhydrous	113.24
Cobalt Chloride·6H <sub>2</sub> O	0.025
Cupric Sulfate·5H <sub>2</sub> O	0.025
Na <sub>2</sub> EDTA·2H <sub>2</sub> O	37.3
Ferrous Sulfate·7H <sub>2</sub> O	27.8
Magnesium Sulfate, Anhydrous	122.09
Manganese Sulfate·H <sub>2</sub> O	10
Molybdic Acid (Sodium	0.25

Salt)·2H <sub>2</sub> O	
Potassium Iodide	0.75
Potassium Nitrate	2500
Sodium Phosphate Monobasic	150
Zinc Sulfate·7H <sub>2</sub> O	2
myo-Inositol	100
Nicotinic Acid (Free Acid)	1
Pyridoxine·HCl	1
Thiamine·HCl	10

#### Application Notes

Plant Tissue Culture

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<sub>4</sub><sup>+</sup> over 2 mM inhibited cell growth.

Thiamine, an essential vitamin, is at a concentration 10x that of Linsmaier & Skoog Medium.

#### References

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

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