**CHB medium formulation**

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| **Composition** | **Chemical formula** | **Content (mg/L)** |
| Calcium chloride dihydrate | CaCl2·2H2O | 83.0 |
| Cobalt chloride hexahydrate | CoCl2·6H2O | 0.0125 |
| Copper sulfate pentahydrate | CuSO4·5H2O | 0.0125 |
| Boric acid | H3BO3 | 5.0 |
| Potassium phosphate monobasic | KH2PO4 | 200.0 |
| Potassium iodide | KI | 0.4 |
| Potassium nitrate | KNO3 | 1415.0 |
| Magnesium sulfate | MgSO4·7H2O | 93.0 |
| Manganese sulfate tetrahydrate | MnSO4·4H2O | 5.0 |
| Ethylenediaminetetraacetic acid monosodium ferric salt | C10H12FeN2NaO8 | 32.0 |
| Sodium molybdate dihydrate | Na2MoO4·2H2O | 0.0125 |
| Ammonium sulfate | (NH4)2SO4 | 232.0 |
| Zinc sulfate heptahydrate | ZnSO4·7H2O | 5.0 |
| Glycine | C2H5NO2 | 1.0 |
| Glutamine | C5H10N2O3 | 1000.0 |
| Inositol | C6H12O6 | 300.0 |
| Vitamin C | C6H8O6 | 0.5 |
| Vitamin B1 | C12H17ClN4OS | 2.5 |
| Vitamin B6 | C8H11NO3 | 0.5 |
| Vitamin H | C10H16N2O3S | 0.25 |
| Nicotinic acid | C6H5NO2 | 0.5 |

**MS medium formulation**

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| **Composition** | **Chemical formula** | **Content (g/L)** |
| MS medium | - | 4.74 |
| sorbitol | C6H14O6 | 10.0 |
| sucrose | C12H22O11 | 30.0 |
| agar | (C12H18O9)n | 7.0 |