

## Composition

**P04-29150**

**William's Medium E**  
**w: stable Glutamine**  
**w: 2.24 g/L NaHCO<sub>3</sub>**

	Components	mg/L
Inorganic Salts	Calcium chloride x 2H <sub>2</sub> O	264.92
	Iron (III)-nitrat x 9H <sub>2</sub> O	0.0001
	Potassium chloride	400.00
	Copper (II)-sulfate x 5H <sub>2</sub> O	0.0001
	Magnesium sulfate	97.67
	Manganese chloride x 4H <sub>2</sub> O	0.0001
	Sodium chloride	6,800.00
	Sodium dihydrogen phosphate x H <sub>2</sub> O	140.00
	Zinc sulfate x 7H <sub>2</sub> O	0.0002
Other Components	D(+)-Glucose anhydrous	2,000.00
	Glutathione (red.)	0.05
	Methylinoleat	0.03
	Sodium pyruvate	25.00
	Phenol red	10.00
Amino Acids	L-Alanine	90.00
	L-Arginine free base	50.00
	L-Asparagine x H <sub>2</sub> O	20.00
	L-Aspartic acid	30.00
	L-Cysteine	40.00
	L-Cystine	20.00
	Glutamine stable	435.08
	L-Glutamic acid	50.00

	Glycine	50.00
	L-Histidine base	15.00
	L-Isoleucine	50.00
	L-Leucine	75.00
	L-Lysine x HCl	87.50
	L-Methionine	15.00
	L-Phenylalanine	25.00
	L-Proline	30.00
	L-Serine	10.00
	L-Threonine	40.00
	L-Tryptophan	10.00
	L-Tyrosine	35.00
	L-Valine	50.00
Vitamins	L-Ascorbic acid	2.00
	D(+)-Biotin	0.50
	Calciferol	0.10
	D-Calcium pantothenate	1.00
	Choline chloride	1.50
	Folic acid	1.00
	myo-Inositol	2.00
	Menadion sodium bisulfate	0.01
	Nicotinamide	1.00
	Pyridoxal x HCl	1.00
	Riboflavin	0.10
	Thiamine x HCl	1.00
	DL- $\alpha$ -Tocopherol phosphate- $\text{Na}_2$	0.01
	Vitamin A acetate	0.10
	Vitamin B12	0.20
	$\text{NaHCO}_3$	2,240.00