

## Product Information

Ham's F-12, with L-Glutamine  
Cat. No. HAM-12-A (500 ml)

### Product Specifications

|  |   |
|--|---|
| Appearance                             | Clear red orange solution   |
| CO <sub>2</sub> concentration, optimum | 2.5%  |
| Storage and shelf life                 | Store at +2°C to +8°C protected from light.<br>Once opened, store at 4° C and use within 6-8 weeks. |
| Shipping conditions                    | Ambient   |

### Formulation

| Components                         | Concentration mg/L |
|------------------------------------|--------------------|
| <b>Amino Acids:</b>                |                    |
| L-Alanine                          | 9.00               |
| L-Arginine HCl                     | 211.00             |
| L-Asparagine H <sub>2</sub> O      | 15.01              |
| L-Aspartic Acid                    | 13.30              |
| L-Cysteine HCl H <sub>2</sub> O    | 35.00              |
| L-Glutamine                        | 146.00             |
| Glycine                            | 7.51               |
| L-Glutamic Acid                    | 14.70              |
| L-Histidine HCl H <sub>2</sub> O   | 20.96              |
| L-Isoleucine                       | 3.94               |
| L-Leucine                          | 13.10              |
| L-Lysine HCl                       | 36.50              |
| L-Methionine                       | 4.48               |
| L-Phenylalanine                    | 4.96               |
| L-Proline                          | 34.50              |
| L-Serine                           | 10.50              |
| L-Threonine                        | 11.90              |
| L-Tryptophan                       | 2.04               |
| L-Tyrosine 2 Na 2 H <sub>2</sub> O | 7.78               |
| L-Valine                           | 11.70              |
| <b>Vitamins:</b>                   |                    |
| D-Biotin                           | 0.0073             |
| Choline chloride                   | 13.96              |
| D-Calcium Pantothenate             | 0.48               |
| Folic Acid                         | 1.32               |
| myo-Inositol                       | 18.00              |
| Nicotinamide                       | 0.037              |

| Components                                   | Concentration mg/L |
|--|--------------------|
| Pyridoxine HCl                               | 0.062              |
| Riboflavin                                   | 0.038              |
| Thiamine HCl                                 | 0.34               |
| Vitamin B12                                  | 1.36               |
| <b>Inorganic Salts:</b>                      |                    |
| CaCl <sub>2</sub> 2 H <sub>2</sub> O         | 44.10              |
| CuSO <sub>4</sub> 5 H <sub>2</sub> O         | 0.0025             |
| FeSO <sub>4</sub> 7 H <sub>2</sub> O         | 0.834              |
| MgCl <sub>2</sub> 6 H <sub>2</sub> O         | 123.00             |
| KCl  | 224.00             |
| NaHCO <sub>3</sub>                           | 1176.00            |
| NaCl   | 7599.00            |
| Na <sub>2</sub> HPO <sub>4</sub> (anhydrous) | 142.04             |
| ZnSO <sub>4</sub> 7 H <sub>2</sub> O         | 0.863              |
| <b>Other Components:</b>                     |                    |
| D-Glucose                                    | 1802.00            |
| Hypoxanthine                                 | 4.08               |
| Linoleic Acid                                | 0.084              |
| Lipoic Acid                                  | 0.21               |
| Phenol Red Sodium Salt                       | 1.3                |
| Putrescine 2 HCl                             | 0.151              |
| Sodium Pyruvate                              | 110.00             |
| Thymidine                                    | 0.70               |

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## Precautions and Disclaimer

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This product is for research use only.

## Help Needed?

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If you have any further questions regarding this product, please do not hesitate to contact our cell culture experts by email ([techservice@capricorn-scientific.com](mailto:techservice@capricorn-scientific.com)) or phone (+49 6424 944640).