

# DATA SHEET

Rev.ver: 01

## 1. Identification

|                     |                                                                    |
|---------------------|--------------------------------------------------------------------|
| <b>Product name</b> | <b>RPMI-1640</b><br>With Sodium Bicarbonate<br>Without L-Glutamine |
| <b>Catalog.no</b>   | <b>CCML108</b>                                                     |

## 2. Description

The Roswell Park Memorial Institute (RPMI) series, developed by Moore and colleagues, comprises media formulated for the in vitro culture of normal and cancerous human cells. Among these, RPMI 1640 is the most widely utilized medium. Adapted from McCoy's 5A medium, RPMI 1640 was initially designed to promote the growth of human lymphoblastoid cells in suspension culture. Today, it is commonly used for a variety of anchorage-dependent cell lines as well. Typically, RPMI 1640 requires supplementation with 5–20% fetal bovine serum, though it is also capable of supporting cell growth without serum. For optimal cell culture results, users should consult relevant literature to determine specific supplementation and growth requirements for individual cell lines.

## 3. Product Specifications

|                                        |                                             |
|----------------------------------------|---------------------------------------------|
| Appearance                             | Orangish red colored, clear solution.       |
| CO <sub>2</sub> concentration, optimum | 5.0 %                                       |
| Storage and shelf life                 | Store at +2°C to +8°C protected from light. |
| Shipping conditions                    | Ambient                                     |

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### 4. Formulation

| Components                       | Concentration<br>mg/L |
|----------------------------------|-----------------------|
| <b>Amino Acids:</b>              |                       |
| L-Arginine                       | 200.00                |
| L-Asparagine H <sub>2</sub> O    | 50.00                 |
| L-Aspartic Acid                  | 20.00                 |
| L-Cystine 2 HCl                  | 65.00                 |
| Glycine                          | 10.00                 |
| L-Glutamic Acid                  | 20.00                 |
| L-Histidine HCl H <sub>2</sub> O | 20.96                 |
| L-Hydroxy-L-Proline              | 20.00                 |
| L-Isoleucine                     | 50.00                 |
| L-Leucine                        | 50.00                 |
| L-Lysine HCl                     | 40.00                 |
| L-Methionine                     | 15.00                 |
| L-Phenylalanine                  | 15.00                 |
| L-Proline                        | 20.00                 |
| L-Serine                         | 30.00                 |
| L-Threonine                      | 20.00                 |
| L-Tryptophan                     | 5.00                  |
| L-Tyrosine 2Na 2H <sub>2</sub> O | 29.00                 |
| L-Valine                         | 20.00                 |
| <b>Vitamins:</b>                 |                       |
| p-Amino Benzoic Acid             | 1.00                  |

| Components                                           | Concentration<br>mg/L |
|------------------------------------------------------|-----------------------|
| D-Biotin                                             | 0.20                  |
| Choline Chloride                                     | 3.00                  |
| D-Calcium Pantothenate                               | 0.25                  |
| Folic Acid                                           | 1.00                  |
| i-Inositol                                           | 35.00                 |
| Nicotinamide                                         | 1.00                  |
| Pyridoxine HCl                                       | 1.00                  |
| Riboflavin                                           | 0.20                  |
| Thiamine HCl                                         | 1.00                  |
| Vitamin B12                                          | 0.005                 |
| <b>Inorganic Salts:</b>                              |                       |
| Ca (NO <sub>3</sub> ) <sub>2</sub> 4H <sub>2</sub> O | 100.00                |
| MgSO <sub>4</sub> 7H <sub>2</sub> O                  | 48.84                 |
| KCl                                                  | 400.00                |
| NaCl                                                 | 6000.00               |
| Na <sub>2</sub> HPO <sub>4</sub>                     | 800.00                |
| NaHCO <sub>3</sub>                                   | 2000.00               |
| <b>Other Components:</b>                             |                       |
| D-Glucose                                            | 2000.00               |
| L-Glutathione Reduced                                | 1.00                  |
| Phenol Red Sodium Salt                               | 5.30                  |

### 5. Precautions and Disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.