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PRODUCT SPECIFICATION SHEET

Product Name: Toyopearl GigaCap® CM-650M (weak cation exchange resin)

HW - 65 — -O-CH₂-COOH

Part Numbers:

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| 21946 | Toyopearl GigaCap CM-650M, 75 µm, 100 mL |
| 21947 | Toyopearl GigaCap CM-650M, 75 µm, 250 mL |
| 21948 | Toyopearl GigaCap CM-650M, 75 µm, 1 L |
| 21949 | Toyopearl GigaCap CM-650M, 75 µm, 5 L |
| 21951 | ToyoScreen GigaCap CM-650M, 1 mL x 6 ea. |
| 21952 | ToyoScreen GigaCap CM-650M, 5 mL x 6 ea. |
| 21400 | ToyoScreen Column Holder |
| 42194 | ToyoScreen Column Holder with fittings |

Product Description: Toyopearl is a methacrylic polymer incorporating high mechanical and chemical stability. Resins are available as non-functionalised “HW” series resins for size exclusion separations, and derivatised with surface chemistries for alternative modes of chromatography such as ion exchange, hydrophobic interaction or affinity separations.

Toyopearl GigaCap® CM-650M chromatographic resin is designed for cation exchange chromatography. This chromatographic mode separates molecules on the basis of ionic interactions between the sample and the resin. The separation is usually accomplished in buffered aqueous solution with a gradient of increasing ionic strength. Alternatively, pH adjustment may be used for control of elution.

Formulation: Particulate resin (spherical), available in particle size (mean diameter):
75 µm = “M” grade
Supplied as slurry in 20 % ethanol (v/v).

Physicochemical Specifications:

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| Appearance | White resin slurry which settles upon standing |
| Particle Size Distribution (≥ 80 % within range) | 50 – 100 µm |
| Exclusion Limit | 6 x 10 ⁵ (Polyethylene Oxide) |
| Mean Pore Diameter | 500 Å |
| Pressure drop across the column | max. 3 bar (recommended) |
| Operating Linear Flowrate | normally 10 – 600 cm/hour |
| Ion Exchange Capacity | 0.225 ± 0.055 meq/mL |
| Protein Adsorption Capacity | ≥ 110 mg/mL (human IgG) |
| Bacterial Count | ≤ 100 CFU/mL |
| Endotoxin Concentration | ≤ 10.0 endotoxin units/mL |
| Pack sizes and type | 100 mL, 250 mL, 1 L, 5 L, 50 L Packed in virgin Polyethylene container with Polypropylene cap. |

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| ▪ Resin Volume per Container | The indicated volume is the settled resin volume. |
| ▪ Shipping Solvent | 72 % (v/v) slurry in 20 % (v/v) ethanol |
| ▪ Long Term Storage Conditions | 20 % (v/v) ethanol |
| ▪ Cleaning in Place / Sanitization | 0.5 M NaOH or 0.1 M HCl |
| ▪ Foreign Substance (Colored Particle) | Max.6 |
| ▪ Eluable Matter | ≤ 0.2 % |