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PRODUCT SPECIFICATION SHEET

Product Name: Toyopearl® AF-Chelate-650M (metal chelating resin for affinity chromatography)

Part Numbers:

14475	Toyopearl AF-Chelate-650M, 65 µm, 25 mL
19800	Toyopearl AF-Chelate-650M, 65 µm, 100 mL
14907	Toyopearl AF-Chelate-650M, 65 µm, 1 L
14908	Toyopearl AF-Chelate-650M, 65 µm, 5 L
21384	ToyoScreen AF-Chelate-650M, 1 mL x 6 ea.
21385	ToyoScreen AF-Chelate-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 AF-Chelate-650M is a metal chelating support for affinity chromatography. The product is prepared by introducing iminodiacetic acid onto Toyopearl HW-65. Toyopearl AF-Chelate-650M, after priming with metal ions, is used to isolate proteins containing histidine, cysteine and tryptophan residues. This resin is particularly useful for the purification of plasma proteins and other enzymes.

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

Physicochemical Specifications:	
▪ Appearance	White resin slurry which settles upon standing
▪ Particle Size Distribution (>80 % within range)	40 – 90 µm for Toyopearl AF-Chelate-650M
▪ Exclusion Limit	< 5 x10 ⁶ Dalton (globular protein)
▪ Mean Pore Diameter	1000 Å
▪ Pressure drop across the column	max. 7 bar (recommended)
▪ Operating Linear Flowrate	normally 60 – 600 cm/hour
▪ Ion Exchange Capacity	35 ± 10 µeq/mL
▪ Protein Adsorption Capacity	≥ 60 mg/g (Lysozyme)
▪ Bacterial Count	≤ 100 CFU/mL
▪ Endotoxin Concentration	≤ 10.0 endotoxin units/mL
▪ Pack sizes and type	25 mL, 250 mL, 1 L Packed in virgin Polyethylene container with Polypropylene cap.
▪ 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, at 4° C
▪ Cleaning in Place / Sanitization	0.5 M NaOH or 0.1 M HCl
▪ Foreign Substance	not observed, no visual evidence
▪ Eluable Matter	< 0.1 %

For detailed test procedures please refer to Regulatory Support File BB-MF-5888.