

•Descriptions

Seplife® EMC7435 is a copolymer of styrene and divinylbenzene (DVB) functionalized with quaternary amine in Cl⁻ form. The resin has the appearance of white spherical beads. The particle size distribution is 315-1250 micron. The resin has a highly hydrophobic structure and is used for ionic immobilization of enzymes by interaction of quaternary amines and ionic groups on the surface of the enzyme. The isoelectric point (pI) of the enzyme determines the net charge of the enzyme and the optimal pH for the immobilization. The great advantage of using ionic immobilization of enzyme is the possibility to regenerate the resin when the enzyme loses its activity over a certain number of cycles. This technique of immobilization is particularly suitable for food applications. The resins is mechanically very strong and can be used in either stirred tank or bed reactor.

The high cross-linking of the resin ensures extremely high mechanical stability thus allowing the possibility to recycle the immobilized enzyme for many cycles.

•Physical and Chemical Characteristics

Matrix	Styrene/divinylbenzene
Appearance	Offwhite opaque spherical beads
Functional group	Quaternary amine (Cl ⁻)
Ligand density	≥0.35mmol/ml
Immobilized method	Ionic
Moisture content (%)	60-70
Shipping weight (g/ml)	0.62-0.72
Particle size (µm)	315-1250
Pore size (Å)	500-700
Surface area (m ² /g)	≥ 100
Chemical stability	The resin is insoluble in water, acid, alkali and methanol, ethanol, acetone, toluene, n-heptane, DMSO and other organic solvents.
Immobilization pH	4-10

•Key features and Benefits

- Easy immobilization through ionic immobilization
- Good physical and chemical stability
- Long lifetime

•Recommended Storage Conditions

Recommended temperature of storage (°C)	2-20
Shelf life	3 years

•Precautions

Resins should be stored in sealed containers or bags where temperature was 2-20°C in dry conditions without exposure to direct sunlight.

Do not mix ion exchange resin with strong oxidizing agents; otherwise it will cause violent reactions.
 In case of eyes contact with resins, rinse eyes immediately with plenty of water, and consult a specialist.
 Material and samples must be disposed according to local regulations.
 Dry polymers will expand when become wetted and may cause an exothermic reaction.
 Spilled materials on the floor can cause slippery conditions.

·Ordering Information

Product Name	Reference number	Packing size
Seplife® EMC7435	PS066I01	500g
	PS066I02	1kg
	PS066I03	5kg
	PS066I04	10kg
	PS066I05	25kg

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