

**•Description**

Seplife® EMC7014 is a highly cross-linked epoxy acrylate carrier that has the appearance of white spherical beads. The particle size distribution is 150-350 micron. The resin is highly hydrophilic and has a highly porous structure combined with a very high surface area which is ideal for immobilization of enzymes. Epoxy-activated resins allow a simple and fast immobilization of enzymes by multipoint covalent binding between the enzyme and resin. All epoxy acrylate resins are designed to form very stable covalent linkages with different protein groups (amino, thiol, phenolic) under very mild experimental conditions of pH and temperature. Epoxy acrylates can be used in either stirred tank or bed reactors.

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

**•Physical and Chemical Characteristics**

|                                  |  |
|----------------------------------|--|
| Matrix                           | Polyacrylate   |
| Appearance                       | White Opaque Spherical beads   |
| Functional group                 | Epoxy  |
| Immobilized method               | Covalent bond  |
| Moisture content (%)             | 58-68  |
| Shipping weight (g/ml)           | 0.68-0.78  |
| Particle size (µm)               | 150-350  |
| Pore size (Å)                    | 400-600  |
| Surface area (m <sup>2</sup> /g) | ≥ 120  |
| Chemical stability               | The resin is insoluble in water, acid, alkali and methanol, ethanol, acetone, toluene, n-heptane, DMSO and other organic solvents.<br>The epoxy groups are unstable in acids and bases |
| Immobilization pH                | 6-8  |

**•Key features and Benefits**

- Easy immobilization through epoxy groups
- Good physical and chemical stability
- Long lifetime

**•Recommended Storage Conditions**

|   |          |
|---|----------|
| Recommended temperature of storage (°C) | 2-8      |
| Shelf life                              | 6 months |

**•Precautions**

Resins should be stored in sealed containers or bags where temperature was 2-8°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® EMC7014 | PM014S01         | 500g         |
|                  | PM014S02         | 1kg          |
|                  | PM014S03         | 5kg          |
|                  | PM014S04         | 10kg         |
|                  | PM014S05         | 25kg         |

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