



# Product Information

**FERMASE PA™**  
850

## Penicillin G Amidase Enzyme Catalyst (Improved)

|                          |   |
|--------------------------|---|
| <b>Introduction</b>      | : Penicillin G Amidase enzyme catalyst is useful for the synthesis of penicillin and cephalosporins intermediates.  |
| <b>Product Type</b>      | : <b>FERMASE PA™ 850</b> is based on improved covalent immobilization technique of highly purified enzyme on macroporous epoxy beads. The enzyme is obtained from non- pathogenic, non-toxic E.coli strain with enhanced penicillin G amidase activity. It is supplied as insoluble, wet spherical beads with uniform particle size distribution. |
| <b>Color</b>             | : Creamish to brown, regularly shaped beads with defined particle size distribution. The color may vary from batch to batch and the color intensity is not an indication of the product quality.  |
| <b>Particle Size</b>     | : 100-500 µm > 98.0%, 50-100 µm < 2.0%.   |
| <b>Activity</b>          | : Not less than 250 Units per gram wet weight & 850 Units per gram dry weight.  |
| <b>Unit definition</b>   | : Amount of enzyme catalyzing the formation of one micromole of 6-Aminopenicillanic acid at 37° C, pH 8.0 at 2 % (w/v) Penicillin G potassium salt initial concentration, in the milieu of 50 mM Sodium Phosphate buffer, within the range of zero order kinetics.  |
| <b>Dry weight</b>        | : 32-35 %.  |
| <b>Productivity*</b>     | : 400-500 Kg of 6-APA/ Kg <b>FERMASE PA™ 850</b> (Wet weight basis)   |
| <b>Advantages</b>        | : <ul style="list-style-type: none"><li>◆ Very high specific activity, selectivity and precision</li><li>◆ High operational stability &amp; recyclability</li><li>◆ Can be used in direct process of 6-APA</li></ul>  |
| <b>Storage stability</b> | : Cool and dry conditions are recommended for storage. The recommended temperature for storing is between 2- 5° C. When stored under these conditions, the product will maintain its declared activity for at least 12 months.<br><b>Do not freeze !</b>  |
| <b>Safety</b>            | : <b>FERMASE PA™ 850</b> is very safe to handle as it does not generate any aerosols. However, avoid raising dust and contact with skin and eyes. Take up spilled dust by mechanical means. Avoid forming aerosols, wash contaminated clothing & ensure sufficient ventilation.   |

\* The batch performance may vary between plant to plant depending upon type of reactors & operating conditions.

MANUFACTURED BY :  
**FERMENTA BIOTECH LTD.**