Immo-Lipase 11

Immobilized Candida Antarctica Lipase

General Description	
Product Type	Immo-Lipase 11 is Candida antarctica Lipase B immobilized on Divinylbenzene/acrylate beads
Lipase	Candida antarctica lipase B produced by submerged fermentation of a genetically modified strain of Aspergillus niger.
Physical form	Creamy white to white colored, uniformly shaped spheres with a defined particle size distribution 
Application	Versatile biocatalyst engineered for efficient esterification and transesterification reactions. Particularly well-suited for sustainable cosmetic ingredient synthesis, enabling the production of high-quality emollients and specialty esters.
Advantages	★ Immo-Lipase 11 delivers high conversion efficiency while reducing by-product formation, ensuring consistent performance and streamlined downstream processing. ★ Exhibits outstanding catalytic activity and operational stability, supporting reliable performance with broad substrate compatibility.

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Technical Description	
CAS number	9001-62-1
Particle size	300 - 700 (µm)
Dry weight	NLT 95 %
Enzymatic activity, minimum	10000 PLU/g dry weight
PLU definition / protocol	1 PLU unit = 1 µmol propyl laurate per minute / g immobilized enzyme. Conditions: 1 mM lauric acid 1.2 mM 1-propanol with 8% water at 60°C. Reaction time: 5 minutes
Storage & Product stability	Cool and dry conditions are recommended for storage. The recommended temperature for storing is below 10 °C. When stored under these conditions, the product will maintain its declared activity for at least 12 months.
Safety	Safe to use in consumer applications. This product should be handled with care to avoid dust or aerosols. Repeated inhalation may cause sensitization and allergic reactions in susceptible individuals. Ensure good ventilation, avoid contact with skin and eyes, and store in closed containers.
Packing size	· Minimum pack size : 1kg · Bulk pack size : 10kg
Material support data	· Material safety data sheet · Certificate of analysis

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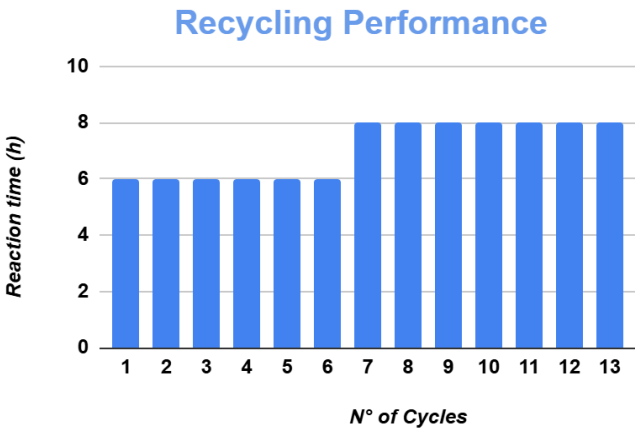
Application Performance

Reaction Conditions

- **Lab scale:** 1 kg
- **Enzyme load:** 0.5%wt
- **Molar ratio -COOH/OH=** 1
- **Temperature:** 85°C
- **Vacuum:** 300 mbar
- **Nitrogen sparge**
- **Mixer rotation speed**: 250 rpm

Successful Criteria

- **Acidity Index:** max. 1.5 mg KOH/g
- **Reaction time:** acceptable range - 6 - 10 hours



Effective Enzyme dosage
0,033% Enzyme/Kg product

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