

ENDOZYM® ALDC

ENDOZYM® ALDC, is a food grade alpha-acetolactate decarboxylase-based product synthesized by *Bacillus subtilis* through submerged fermentation techniques. It facilitates the conversion of acetolactate into acetoin, avoiding so the formation of vicinal diketones (VDKs), i.e. diacetyl and 2,3-pentanedione in beer.

PRODUCT PROPERTIES

COMPOSITION: alpha-acetolactate decarboxylase

ORIGIN: Derived from selected strains of *Bacillus subtilis*

ACTIVITY:

alpha-acetolactate decarboxylase > 2000 U/mL

PHYSICAL FORM	Liquid
COLOUR	Yellow to Brown
DENSITY	1.18 g/ml

APPLICATION BENEFITS

ENDOZYM® ALDC catalyzes the decarboxylation of alpha-acetolactate into acetoin and carbon dioxide, preventing the chemical formation of vicinal diketones, i.e. diacetyl and 2,3-pentanedione, outside the brewing yeast cell.

- Shorter maturation / conditioning phase.
- Higher fermentation cellar capacity, i.e. shorter fermentation cycles.
- Significant energy savings by lower beer cooling demand required.
- Consistent flavor quality for both dry-hopped and non-dry-hopped final beer products.

SPECIFICATIONS

Total viable count	< 50000 cfu/ml *
Coliforms	< 30/ml
<i>E. coli</i>	Not detected/absent
Salmonella species	Not detected/absent

For additional specifications data please refer to the Compliance Data Sheet (CDS) or contact AEB Group Quality Control

*cfu = Colony Forming Units

DOSAGE & APPLICATION

10-15 mL of ENDOZYM® ALDC per ton of cold wort and 4-10 ml of ENDOZYM® ALDC per ton of beer.

(Dosage optimization should depend on the material variety and individual difference.)

OPTIMAL TEMPERATURE	10-70°C
pH RANGE	3.0 – 7.5

PACKAGING & STORAGE

Please contact your local AEB customer support team for country-specific pack size availability

Store in cool dry place <10°C / <50°F for maximum 18 months

On opening the bottle use the product as quickly as possible and within a maximum of 4 weeks while stored as specified above. If there are any signs of spoilage during storage of an opened bottle do not use and discard the contents appropriately. If in doubt, please contact AEB Technical Service.

COMPLIANCE

This product complies with the recommended specifications for food grade enzymes given by the joint FAO/WHO Expert committee on Food Additives (JECFA) and the Food Chemicals Codex (FCC)

For more information, please refer to the Compliance Data Sheet (CDS) or contact AEB Group Quality Control

CONTACT US

For more information, please visit us online at www.aeb-group.com or email info@aeb-group.com

AEB Group is a leader in yeast, fermentation, enzymes, filtration, detergents, equipment and biotechnology for the beer, wine, beverage, and food industries. AEB has a global presence with production sites worldwide and dedicated R&D facilities with quality control laboratories.

HANDLING & SAFETY

This is a liquid product.

Enzymes are proteins. Exposure may induce sensitisation and may cause allergic reactions. Protective handling equipment is recommended. Note that some natural settling and sedimentation may occur in the product, but this will not affect its performance.

Please refer to the Safety Data Sheet (SDS) for further information.

QUALITY ASSURANCE

This product is produced in accordance with certified quality management system ISO 9001, applying GMP, and HACCP standards.

The enzyme in this product is a food grade alpha acetolactate decarboxylase produced from refined strain of *Bacillus subtilis* through submerged fermentation.

This product is not treated with ionizing radiation.

For more information, please refer to the Compliance Data Sheet (CDS) or contact AEB Group Quality Control