

## Deltazyme AMG

**Product Code:** DG-DZAMG (Low Carb Enzyme) ALCE25

FOOD GRADE PRODUCT

**Description:** Deltazyme AMG is an Amyloglucosidase produced by during the fermentation of *Aspergillus niger*.

Deltazyme AMG is capable of producing a high degree of true attenuation in grain fermentation when added to the fermenter. It can be used as a primary substitute or increase attenuation permitting production of high alcohol beers. Treatment of wort with Deltazyme AMG can also result in the production of low carbohydrate diabetic beer of increased alcohol strength. Deltazyme AMG hydrolyses both the hydrolysing (1-4) and-(1-6) glucose linkages in starch allowing for almost complete conversion of starch to glucose.

**Country of Origin:** Deltazyme AMG is blended in Australia from local and imported ingredients

**Optimal Temperature:** The optimal temperature for Deltazyme AMG is 58°C to 65°C with > 80% activity in the range 65°-75°C

**Optimal pH:** The optimal pH for Deltazyme AMG is 4.0 with >80% activity in the range pH 3.0 - 4.5

**Specifications:** All analytical methods are available on request.

Colour:	Light Brown liquid
Activity:	>400 AMGU/ml
Specific Gravity:	1.07 Typical
pH:	4.0 Typical
Density:	1.10 to 1.15 g/ml

Heavy metals (as Pb):	<30 mg/kg
Lead:	<5 mg/kg
Arsenic:	<3 mg/kg

**Microbiological:**

Total plate count:	<50,000/ml
Coliforms	<30 CPU/m
Salmonella	absent in 25ml
E.coli	absent in 25ml
Yeast & Moulds	<200/ml

**Recommended Dose Rate:**

### Brewing Industry

- Mash and run off normally to the copper/kettle or to a special wort holding tank.
- Adjust temperature of the wort in the cooper/holding tank to 65°C. This temperature is important.
- Add Deltazyme AMG at the rate of 0.05 - 0.10 kg/hectolitre to the wort (depending on the degree of final attenuation required).
- Hold @ 65°C for 2-4 hours.
- Proceed with copper boil.

**Storage:** Deltzyme AMG will maintain the declared activity for 3 months when stored under cool and dry conditions, a 1-2 % drop in activity per month can occur subsequently.  
For optimum stability store refrigerated at 4-6°C

**Shelf-Life** The Recommended shelf life is 12 months.

**Packing:** Standard packaging for Deltzyme AMG is in 25kg FG drums, 5kg and 1kg FG containers.

**Ingredients and Nutritional Facts:**

- Glucoamylase, Dextrose, Sodium Benzoate, Potassium Sorbate

	Per 100g
Energy	168 kj
Carbohydrate	1-10 g
Fat (Total)	<1 g
(Saturated)	0 g
Protein	2-10 g
Sodium	mg

Enzymes function in food processing systems as biocatalysts and are used at extremely low concentrations. It is highly unlikely that the enzyme materially contributes to the nutrition composition of the food.

**Halal and Kosher Status** Suitable

**GMO Status** Non GMO

**Allergen Status**

YES	NO	ALLERGENS
	X	Cereals containing Gluten (Wheat, Rye, Barley, Oats or Spelt or their hybridized strains)
	X	Crustacea & their products
	X	Eggs & egg products.
	X	Fish & fish products
	X	Peanuts & their products
	X	Soybeans & their products.
	X	Milk & milk products (Lactose)
	X	Nuts & nut products
	X	Sesame seeds & their products
	X	Added sulphites in concentration of 10mg/kg or more

Issue No:	Summary of changes made from previous version:	Actioned by:	Authorised by:
5	Addition of nutritional panel & allergen status	Maree Edleston	Michael Watson