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TECHNICAL DATA SHEET

TDS-ENZ282-EN · REV. 02 · 2026-11-03

Food Grade Lactase Liquid

Lactase (β-Galactosidase) that hydrolyses lactose into glucose and galactose in dairy processing.

SKU **ENZ282** CATEGORY **DAIRY ENZYMES** CAS **9031-11-2** ENZYME TYPE **LACTASE / B-GALACTOSIDASE**

GRADE **FOOD GRADE**

Food grade Not restricted for transport

OPTIMUM TEMPERATURE	OPTIMAL PH	LACTOSE CONVERSION	APPLICATION RATE – LIQUID MILK
30–40 °C	**6.0–7.0**	**Exceeds 99%**	**0.02–0.1%**
recommended operating range; activity maximum around 40 °C	best activity between pH 6.0 and 7.0	under recommended conditions	w/w, based on liquid weight

SPECIFICATION

IDENTITY	
Enzyme type	Lactase / β-Galactosidase Typical
Primary function	Hydrolysis of lactose into glucose and galactose Typical
PHYSICAL	
Appearance	White powder Typical
WORKING WINDOW	
Optimal pH	**6.0 – 7.0** Typical
Optimal temperature	**30 – 40 °C** Typical
ACTIVITY	
Lactose conversion	**Exceeds 99%** Typical

Spec = release limit, confirmed on every lot's Certificate of Analysis. **Typical** = normal product behaviour, not a release limit.

STORAGE & PACKAGING

SHELF LIFE
12 months

STORAGE
Store in a cool, dry environment, protected from direct light, below 0 °C

PACK SIZE
1 kg bottle

ORDERING
Online or by e-mail; current price on the product page

APPLICATIONS

Produce low-lactose and lactose-free dairy products
Reduces lactose content and supports tolerance in lactose-intolerant consumers

Hydrolyse lactose before fermenting dairy products
Helps reduce crystallisation and texture defects

Treat milk powder solutions and dairy ingredients
Increases sweetness and digestibility, allowing reduced added sugar

Treat milk for baked goods and dairy-based foods
Helps prevent aroma and colour changes and supports yeast fermentation

DOSAGE

0.02–0.1%

w/w, based on liquid weight (liquid milk)

Addition	**Add lactase at 0.02 – 0.1% based on liquid weight**
Hydrolysis	**35 °C for approximately 5 hours, or ~9 °C for 20–24 hours**
Agitation	**Gentle agitation during hydrolysis**
Inactivation	**Heat to approximately 85 °C after hydrolysis, if required**
Milk powder solution	**0.2 – 0.4% based on dry matter, at approximately 12% total solids**

The optimal rate depends on lactose concentration, processing time, temperature profile and target lactose level.

Each lot is released against its specification; the lot Certificate of Analysis reports the measured values.

enzymes.bio · Level 1, 6 Johnsonville Road, Wellington 6037, New Zealand · **Tel (USA) +1 (507) 428-6057** · wholesale@enzymes.bio

Online: enzymes.bio/product/food-grade-lactase-liquid

Exposure to concentrated enzyme dust may cause sensitisation; avoid inhalation and wear gloves and eye protection. This technical data sheet gives the product specification and typical values; it is not a batch certificate. A Certificate of Analysis for the supplied lot accompanies each shipment. Safety Data Sheet on request.

SCAN TO ORDER