



EDIBLE LACTOSE

Code 303

PRODUCT DESCRIPTION

Alpha lactose monohydrate (edible lactose) is a milk sugar possessing many unique chemical properties as compared to other commercial sugars. Edible lactose is available in two granulations; regular (nominal mesh 80) and fine grind (nominal mesh 200). Fine grind is normally selected when other characteristics such as fine particles, increased watability and minimal stratification are desired.

FUNCTIONALITY

Compared to cane sugar, lactose has one-sixth to one-third the sweetness, making it ideal to use for reducing sweetness. It has more than twice the effectiveness of other sugars in absorbing volatile flavor compounds. It also has a marked tendency to attract and absorb both synthetic and natural pigments. Lactose has little affinity for moisture, helping icings and toppings to maintain a smooth, non-grainy texture, even when exposed to high relative humidity. In baked products, lactose produces a golden-brown appearance.

TYPICAL APPLICATIONS

Bakery products: In breads, rolls and cookies use lactose at 3% to 4% by weight of flour. Use lactose up to 8% weight of flour in pie crusts. **Icings:** Replace 15% to 20% of other sugars with lactose in icings, toppings, custards and creams. **Frozen desserts:** Use 5% to 6% lactose in sherbets and ices. **Sauces and salad dressings:** Use up to 15% lactose in catsup, barbecue sauces and salad dressings. **Infant formulas:** Add lactose to achieve the composition of human milk. **Dry mixes:** Lactose functions as an anti-caking agent in spice mixes and as an instantizing aid. Use from 5% to 10% in coffee creamers; and 5% to 8% in dry mix soups, sauces and gravies.

STORAGE CONDITIONS

Dry/ambient conditions are recommended. Store less than 75% relative humidity. Do not store under refrigeration.

RE-EVALUATION DATE

Twelve months from date of manufacture.

TECHNICAL DATA

Ingredient Listing: Lactose (milk)

Physical Analysis	Typical	Specification
Protein (Nx6.38)%	0.1-0.6	0.6 (max)
Lactose (Monohydrate) %	99.0-99.5	99.0 (min)
Fat % (Dry Basis)	Nil	
Minerals %	0.1-0.3	0.3 (max)
Moisture (Free & Hydrate)%	4.5-4.8	5.3 (max)

Microbiological Standards

Std Plate Count cfu/g	200	15,000 (max)
Coliform Count cfu/g	Negative	10 (max)
E. coli	Negative	Negative
Salmonella	Negative	Negative

Food Energy

K Cal/100g	380
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Vitamin and Mineral Analysis

Lactose does not contain significant amounts of vitamins and minerals, although trace amounts may be present.

Typical	#303
Particle Size	Regular
On USS #40	<5%
On USS #80	45.0%
On USS #140	
On USS #200	65.0-90%

Physical Characteristics

Appearance	Crystalline, free-flowing powder
Color	White to creamy white
Flavor and Odor	Slightly sweet, free from foreign flavors and odors

Allergen Classification

Dairy product – contains whey proteins and lactose.