Lactose Standard

Product Definition

Lactose (Milk Sugar) is a white to creamy white crystalline product, possessing a mildly sweet taste. It may be anhydrous, contain one molecule of water of hydration, or be a mixture of both forms. It is manufactured from whey or permeate by evaporating, crystallizing, refining and then drying the lactose crystals. Lactose for human consumption complies with all provisions of the U.S. Federal Food, Drug, and Cosmetic Act.

Composition (dry basis)

Classification	Lactose	Protein	Ash	Total Moisture
Industrial/Fermentation Grade Lactose	98.0% Min.	1.0% Max.	0.45% Max.	6.0%* Max.
Edible (Food Grade) Lactose	99.0% Min.	0.20% Max.	0.30% Max.	6.0%* Max.
Refined Edible Grade Lactose	99.50% Min.	0.15% Max.	0.20% Max.	6.0%* Max.

*Includes water of crystallization

Mesh Size

Edible Lactose can be ground or milled to produce various mesh sizes. Typical mesh sizes include:

Product	Sieve Size (Mesh)	% Pass Through
40 mesh	40	Min. 80%
100 mesh	100	Min. 80%
200 mesh	200	Min. 80%

Other Characteristics

Scorched Particle Content	≤ 15.0 mg/25g
pH (10% solution)	4.5 – 7.5
Color	white to pale yellow
Flavor	slightly sweet

Microbiological Analysis

Standard Plate Count	$\leq 2,500$ cfu/g
Coliform	≤ 10 cfu/g
Salmonella	Negative
Listeria	Negative
Coagulase positive Staphylococci	< 10 cfu/g

Methods of Analysis

Criteria	Reference Method
Lactose	ISO 22662/IDF 198
Protein	AOAC 991.20 (N x 6.38)
Ash	AOAC 942.05
Moisture	ISO 5537/IDF 26

Product Labeling

Product should be labeled as: "Lactose" or "Milk Sugar"

Product Applications

Applications include: infant foods, chemicals/pharmaceuticals, dairy products, prepared dry mixes, bakery products, soft drinks/special dietary foods, confections, among others.

Storage & Shipping

Product should be stored and shipped in a cool, dry environment with temperatures below 80°F and relative humidities below 65%. Stocks should be rotated and utilized within 24 months.

Packaging

Multiwall Kraft bags with polyethylene inner liner or other suitable closed container – i.e., "tote bins," etc.