



Valley Queen Cheese Inc.

All Procedures/Forms Are Considered Confidential

Title: Lactose Product Specification
Department: Whey

Date: 1/29/2025
Revision: Initial
Reviewed: RJ
SQF #: LACPS-L90002

I. Product Name/Code: **L90002 - Milled Lactose in 25 Kg Bags**

- a. Primary Customer: 126

II. Product Description:

Lactose is the principal carbohydrate in milk. It is a disaccharide which is composed of the monosaccharide's glucose and galactose. The production process consists of concentrating whey and/or milk permeate followed by cooling to induce crystal formation. The crystalline mass is separated in a centrifuge and subsequently dried.

III. Packaging:

- Packaged in 25 Kg Kraft multiwall bags with an individually closed polyethylene bag liner.
- Heat sealed seams.
- Heat-treated, Grade A pallets.
- Standard Pallet is 40 - 25 Kg bags per pallet stacked five bags per level, eight levels high.
- Product is shrink-wrapped with pallet.

IV. Ingredient Statement: Lactose - Milk Sugar (Milk).

V. General Requirements:

- Kosher Certification
- Halal Certification
- Non-GMO
- Gluten Free
- Made from rBST free milk
- Country of Origin: Made in USA

VI. Labeling:

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|--|----------------------|
| a. Name of product | f. Kosher Symbol |
| b. Plant identification number, 46-234 | g. Halal Symbol |
| c. Production date (date of drying) | h. VQ Lot Number |
| d. Tote number | i. Expiration Date |
| e. Net weight of tote | j. Country of Origin |

VII. Physical Criteria:

- Appearance:** Free flowing white to yellow crystals of lactose alpha monohydrate.
- Color:** White to yellow.
- Flavor:** Clean - very slight sweet - sometimes described as a woody note, with a slight drying mouth feel. A fruity note may be present. Should be absent of off-notes such as cowy or barny.
- Particle size:** A minimum of 80% particles pass through U.S. Sieve #100 mesh. Sieve opening in millimeters = 0.149.

<u>VIII. Chemical Standards:</u>		<u>Min.</u>	<u>Max.</u>	<u>Test Frequency</u>	<u>Test Method</u>
a.	Lactose alpha monohydrate	98.00%	100.00%	5 pallet composite	Calculation
b.	Moisture - Total	N/A	<6.00%	5 pallet composite	ISO/DIS 12099
c.	Protein	N/A	0.50%	5 pallet composite	ISO/DIS 12099
d.	pH	4.5	7.50	5 pallet composite	ISO/DIS 12099
e.	Ash (dry basis)	N/A	0.30%	5 pallet composite	ISO/DIS 12099
f.	Scorched Particle(s)	N/A	A or B	5 pallet composite	SM 15.172

<u>IX. Microbiological Standards:</u>		<u>Min.</u>	<u>Max.</u>	<u>Test Frequency</u>	<u>Test Method</u>
a.	Coliform	N/A	<10 cfu/g	5 Bag Composite	AOAC 996.02/SM 7.072
b.	E. coli	N/A	<1 cfu/g	5 Bag Composite	AOAC 996.02/SM 7.072
c.	Standard Plate Count (SPC)	N/A	<10,000 cfu/g	5 Bag Composite	AOAC 989.10/SM 6.040
d.	Salmonella	N/A	Negative/375 g	1 Composite per Lot	VGSRN:230
e.	Listeria	N/A	Negative/25 g	1 Composite per Lot	VGSRN:230
f.	Staph	N/A	<10 cfu/g	5 Bag Composite	AOAC 2003.08
g.	Yeast & Mold	N/A	<50 cfu/g	5 Bag Composite	AOAC 2014.05

X. Allergens:

- a. Allergens: Contains milk and/or milk derivatives.

XI. Shipping Requirements:

- a. Product shipped on Dry Van or Shipping container. Refrigeration not required.

XII. Shelf Life:

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| | <u>Maximum Shelf Life</u> |
| a. Ambient Temperature Storage | 24 months from date of production. |