

Instant Nonfat Dry Milk (INDM) Standard

Product Definition

Instant Nonfat Dry Milk (INDM) is nonfat dry milk which has been produced in a manner to substantially improve its dispersing and reconstitution characteristics. INDM for human consumption complies with all provisions of the U.S. Federal Food, Drug, and Cosmetic Act.

Composition/Specifications for Extra Grade INDM

Classifications	Fat	Moisture	Titratable Acidity	Solubility Index	Scorched Particles
Extra Grade INDM	Max. 1.25%	Max. 4.5%	Max. 0.15%	Max. 1.0 ml	Max. 15.0 mg

Other Characteristics

Dispersibility	Min. 85%
Color	white to cream
Flavor	sweet, pleasing, desirable

Microbiological Analysis

Standard Plate Count	≤ 10,000 cfu/g
Coliform	≤ 10 cfu/g

Extra Grade Instant Nonfat Dry Milk shall be reasonably free-flowing and free from lumps, except those that break up readily with very slight pressure. The flavor and odor of the re-liquefied product shall be sweet, pleasing and desirable, but may possess the following flavors to a slight degree: chalky, cooked, feed and flat.

If lactose is used as a processing aid, the amount shall be only that necessary to produce the desired effect -- not to exceed 2.0% of the weight of the nonfat dry milk.

If INDM is fortified with Vitamins A and D, the vitamins are added to ensure that each quart of the reconstituted product contains 2000 I.U. of Vitamin A and 400 I.U. of Vitamin D, when prepared according to label directions.

While most INDM is used for beverage purposes, INDM which has not been fortified with vitamins may be procured for use as an ingredient in other food products.

GRADE NOT ASSIGNABLE

Instant nonfat dry milk shall not be assigned a grade for one or more of the following reasons:

- α) Fails to meet the requirements for Extra Grade, or
- β) Has a Direct Microscopic Clump Count exceeding 40 million per gram.

Additional ADPI Specifications

Salmonella	negative
Listeria	negative
Coagulase positive Staphylococci	<10 cfu/g
Yeast & Mold	≤ 100 cfu/g

Methods of Analysis (see pages 49-79)

Criteria	Reference Method
Dispersibility	Modified Moats-Dabbah Method
Fat	AOAC 989.05
Total Moisture	AOAC 925.45

Note: All above-mentioned tests to be determined upon samples drawn from sound, undamaged packages.

Product Labeling

Product should be labeled as: “Instant Nonfat Dry Milk fortified with Vitamins A &D”

Product Applications and Functionality

Beverages, breads, soups, salad dressing, entrees, desserts, diet drinks (special dietary beverages), infant formulas, cosmetics

To Reconstitute INDM

INDM	+	Cold Water	=	Liquid Instant Milk
1/3 cup	+	1 cup	=	about 1 cup
1 1/3 cup	+	3 ¾ cup	=	about 1 quart

Storage & Shipping

Keep in a cool, dry place. Unopened packages of INDM can be kept for 6 mo - 1 yr without refrigeration. Some flavor change may occur if storage and shipping temperatures reach 90°F or above for long periods of time. Refrigerate after mixing with water. The same care should be given reconstituted dry milk as is given to other fluid milk products.

Packaging

Usually packaged for retail sales in multi-quart bulk packages or individual pre-measured envelopes. Also packaged in multiwall kraft bags and bulk containers.