



United States
Department of
Agriculture

Agricultural
Marketing
Service

Dairy
Programs

USDA Specifications for Instant Dry Whole Milk

**Effective January 1993
Reviewed June, 2013**

USDA Specifications for Instant Dry Whole Milk

Commodity Specifications

A. General Requirements

1. The instant dry whole milk shall be produced in plants which have been inspected and approved by Dairy Grading Branch, Dairy Division, Agricultural Marketing Service, USDA, prior to submission of offer.
2. The instant dry whole milk shall not be more than 30 days old on the date it is offered to CCC.
3. Instant dry whole milk must also meet the following quality specifications:
 - (a) *Milkfat* -- Not less than 26.0% and not more than 40.0%.
 - (b) *Moisture* -- Not more than 4.5% (as determined by weight of moisture on a milk solids not fat basis).
 - (c) *Bacterial Estimate* -- Not more than 10,000 cfu per gram by standard plate count.
 - (d) *Direct Microscopic Clump* -- Not more than 40 million per gram.
 - (e) *Scorched Particles* -- Not more than 15.0 mg. USDA Scorched Particle Standards.
 - (f) *Solubility Index* -- Not more than 1.0 ml.
 - (g) *Oxygen Content* -- Not more than 3 percent.
 - (h) *Dispersibility* -- Not less than 85.0 percent.
 - (i) *Penicillin* -- Negative.
 - (j) *Coliform* -- Not more than 10 per gram.
 - (k) *Vitamin A* -- Not less than 2000 International Units (IU) of Vitamin A per quart of the reconstituted product.

4. The instant dry whole milk shall be white or light cream in color, free from lumps that do not break up under slight pressure, and practically free from visible dark particles.
5. Reconstituted instant dry whole milk shall be sweet, pleasing and desirable. It may possess a slight feed and a definite cooked flavor. The reconstituted instant dry whole milk shall be free from graininess.

B. Level of Fortification

The instant dry whole milk may be fortified with Vitamins A and D, by either the wet process or the dry process in such a manner as to assure even distribution of the vitamins at the rate of not less than 400 International Units (IU) of vitamin D and 2000 (IU) of vitamin A per quart of the reconstituted product within limits of good manufacturing practice.

The vitamin fortification requirements will be deemed to have been met if reasonable overages, within limits of good manufacturing practice, are present to ensure that the required levels of vitamins are maintained throughout the expected shelf life to the food under customary conditions of distribution. Instant dry whole milk containing more than 5,000 or less than 2000 I.U. of Vitamin A per quart will be rejected by CCC.

C. Vitamin Sources for Dry Process Fortification

See appendix I

D. Vitamin Sources for Wet Process Fortification

See appendix I

Container and Marking Specifications

Container

1. The instant dry whole milk shall be packaged in 4-pound cans and shipping containers which meet the specifications set forth in ASCS Handbook, Packaging of Dairy Products (“DACO-Dairy”), Part 2, Section 5.
2. Individual shipping containers with 6/4-pound cans shall weigh not less than 23.9 pounds net weight. The total net weight of all shipping containers test weighed by AMS with a carlot, shall not vary more than one-tenth (.1) of one percent under the aggregate marked net weight of all shipping containers within a carlot.

Condition

The metal cans and markings shall meet the United States Standards for Condition of Food Containers (7 C.F.R., Part 42) and will be subject to examination by AMS to determine compliance with these standards.