USDA COMMODITY REQUIREMENTS

IMD4
INSTANT NONFAT DRY MILK

FOR USE IN DOMESTIC PROGRAMS

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Part 1  COMMODITY SPECIFICATIONS

Section 1.1  INSTANT NONFAT DRY MILK REQUIREMENTS

A. Quality of Product
   The instant nonfat dry milk, Type IV, shall conform to the Commercial Item Description (CID) A-A-20085D, dated 01/13/2011, except when amended by the applicable solicitation. The CID is available at http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELDEV3006747

B. The product shall meet or exceed the requirements for U.S. Extra Grade as set forth in the United States Standards for Instant Nonfat Dry Milk, provided that:
   (1) the density shall be in the range of 25 to 35 grams (100 ml sample), and
   (2) the moisture content shall not exceed 4.0 percent.

C. The product shall be salmonella and listeria negative.

D. Production Requirements
   (1) The bulk nonfat dry milk used in processing the product shall have been manufactured by the spray process from fluid milk produced in the United States in plants which are eligible for listing in Section I of the AMS publication “Dairy Plants Surveyed and Approved for USDA Grading Service”, and shall not have been previously owned by the Government.
   (2) The product shall have been processed and packaged in plants which have been approved by AMS. The USDA AMS plant approval code must match the appropriate product or operation code as listed in Section I of the AMS publication “Dairy Plants Surveyed and Approved for USDA Grading Service” for the commodity offered.

E. Level of Vitamin Fortification
   (1) The product shall be fortified with Vitamins A and D within a range between 2000 – 4200 International Units (IU) of Vitamin A, and not less than 400 or greater than 800 IU of Vitamin D per 100 grams of product. The product must be fortified with Vitamins A and D by either the wet or dry process in such manner as to ensure even distribution of the vitamins at the rate of approximately 3000 IU of Vitamin A, and 600 IU of Vitamin D per 100 grams of product. The vitamins must be added at a sufficient level to allow for loss in vitamin potency during fortification.
   (2) Any product containing Vitamin A in excess of 4,200 or less than 2,000 IU per 100 grams will be rejected, or at the discretion of the Contracting Officer, accepted at a discount.
F. Vitamin Sources for Dry Process Fortification
   (1) The vitamins shall be Vitamin A Palmitate (Retinyl Palmitate) or Vitamin A Acetate (Retinyl Acetate) and Vitamin D$_2$ (Ergocalciferol, or activated Ergosterol), or D$_3$ (activated 7-Dehydro Cholesterol). The ratio of vitamins added to the product shall be five (5) IU of Vitamin A to one (1) IU of Vitamin D. The vitamins added shall be suitably blended in a bland, dry, edible carrier capable of being readily dispersed when the product is reconstituted. Suitable carriers shall be used as permitted by the Food and Drug Administration (FDA).

   (2) The contractor shall obtain a certification from the vitamin supplier that the supply of vitamins delivered to the milk processor has been tested and found to be substantially without flavor, readily dispersible and suitable for use in milk products. The contractor, by delivering the product to the Government, warrants the certification to be correct.

G. Vitamin Sources for Wet Process Fortification
   (1) The vitamins shall be Vitamin A Palmitate (Retinyl Palmitate) and Vitamin D$_2$ (Ergocalciferol or activated Ergosterol) and D$_3$ (activated 7-Dehydro Cholesterol). The ratio of vitamins added to the product shall be five (5) IU of Vitamin A to one (1) IU of Vitamin D. A small amount of suitable bland, edible oil may be used as a diluent and solvent for the purpose of adjusting potency to give not less than one million United States Pharmacopoeia (USP) units per gram. Suitable food grade antioxidant to stabilize the vitamins and food grade emulsifier shall be used as permitted by the FDA.

   (2) Only hydrogenated coconut oil conforming to the provisions of FDA and the following requirements shall be used to further dilute the vitamins before they are added to the fluid skim milk in accordance with the vitamin supplier’s instructions:

<table>
<thead>
<tr>
<th>Property</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flavor</td>
<td>Clean and Bland</td>
</tr>
<tr>
<td>Refractive Index at 104 Degrees F.</td>
<td>1.448 to 1.452</td>
</tr>
<tr>
<td>Iodine Value</td>
<td>4.0</td>
</tr>
<tr>
<td>Maximum Melting Point</td>
<td>98 to 102 Degrees F.</td>
</tr>
<tr>
<td>Saponification Value</td>
<td>250 to 260 Maximum</td>
</tr>
</tbody>
</table>

   (3) The contractor shall obtain a certification from the vitamin supplier that the supply of vitamins delivered has been tested and found to be substantially without flavor, suitable for use in milk products, and the vitamin assays for Vitamin A (Palmitate), Vitamin D$_2$ (Ergocalciferol or synthetic oleo Vitamin D), and Vitamin D$_3$ (Activated 7-Dehydro Cholesterol) are not less than the label claim when tested by methods prescribed in USP XIX. The contractor, by delivering the product to the Government, warrants the certification to be correct.
Section 1.2  **WARRANTY**
A. The product shall have a shelf life of at least one year from date of delivery to the Government.

B. The contractor shall be liable for losses due to excessive deterioration, mold development, or spoilage, which are discovered within 180 days of the date of delivery to the Government.

Section 1.3  **QUALITY ASSURANCE**
A. The contractor shall perform the product testing and quality analysis to ensure that the product meets the commodity specifications. The contractor shall verify the salmonella and listeria requirement using the testing procedures specified in the CID. All test results shall be evidenced by a Certificate of Analysis (COA). The contractor shall certify that the finished product meets or exceeds the requirements of the CID. If quality discounts are provided in the contract, and the product to be delivered by the contractor falls within the quality discount table, those factors shall be identified by an asterisk on the copies of the COA.

B. Contractors shall notify the Government immediately of lots that fail to meet contract requirements.

Section 1.4  **QUALITY DISCOUNTS**
If the product does not meet the quality specifications, but falls within the discounts listed, the product may be delivered to the Government, but the purchase price shall be reduced in accordance with the following schedules of discounts for each pound of commodity delivered:

<table>
<thead>
<tr>
<th>Moisture Content</th>
<th>Discount Per Pound</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1%</td>
<td>$0.01</td>
</tr>
<tr>
<td>4.2%</td>
<td>$0.02</td>
</tr>
<tr>
<td>4.3%</td>
<td>$0.03</td>
</tr>
<tr>
<td>4.4%</td>
<td>$0.04</td>
</tr>
<tr>
<td>4.5%</td>
<td>$0.05</td>
</tr>
</tbody>
</table>

Section 1.5  **WEIGHT REQUIREMENTS**
A. The product shall be packaged with 6/4-pound cartons or bags, 12/25.6 ounce bags per shipping container or 25 kg. bags.

B. Individual shipping containers shall be packed with 6/4-pound cartons or bags and shall contain not less than 23.88 pounds net weight of product. Individual shipping containers with 12/25.6 ounce cartons or bags shall contain not less than 19.1 pounds net weight of product. The appropriate net weight shall be marked on the container.
C. The total net weight of the product in all shipping containers test weighed within a lot shall not vary more than one-tenth (0.1) of one percent under the aggregate net weight as marked on the shipping containers in the lot.

D. Any lot of product with test weight shortage in excess of one-tenth (0.1) of one percent but not more than four-tenths (0.4) of one percent under the marked net weight of all shipping containers within the lot will be accepted by the Government at the following discounts below the contract price:

<table>
<thead>
<tr>
<th>Discounts for Test Weight Shortage</th>
<th>Percentage of Test Weight Shortage</th>
<th>Discount Per Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 0.1% up to and including 0.2%</td>
<td></td>
<td>$25.00</td>
</tr>
<tr>
<td>Greater than 0.2% up to and including 0.3%</td>
<td></td>
<td>$50.00</td>
</tr>
<tr>
<td>Greater than 0.3% up to and including 0.4%</td>
<td></td>
<td>$75.00</td>
</tr>
</tbody>
</table>

E. Any lot with test weight shortage in excess of four-tenths (0.4) of one percent of the aggregate marked net weight of all shipping containers within the lot shall be rejected, or at the discretion of the contracting officer, accepted at discounts to be determined by the Government.

F. In addition to the discounts specified above, the individual shipping containers of product included in the sample test weighed in a lot which do not meet the minimum net weight requirements as specified above shall result in discounts by the Government of $10.00 for the first shipping container and $5.00 for each additional shipping container.
Part 2  CONTAINER AND PACKAGING REQUIREMENTS

Section 2.1  GENERAL
This part provides the container specifications and packaging materials requirements used under this contract.

Section 2.2  COMMERCIAL PACKAGING REQUIREMENTS
A. Contractors shall supply commercial brand products only and shall certify at the time of submission of an offer that the commercial product being delivered has a history of successful distribution and use in domestic commercial channels and is sold on the commercial market with an established level of consumer acceptance.

B. Container and packaging requirements are those customarily used in the current commercial shipping practices and shall comply with:
   (1) Unitization requirements in Section 2.5.
   (2) At contractor’s option, a statement such as “Not for Retail Sale” may be printed on the principal display panel of the food label.
   (3) The manufacturer’s lot code/lot identification number shall be shown on the commercial bill of lading.
   (4) Shipping containers shall be marked to show the maximum safe stacking height. It is the responsibility of the contractor in cooperation with the shipping container manufacturers to determine the safe stacking height.
   (5) For identification upon receipt at delivery warehouses, all commercial-labeled product shipping documents shall specify “FOR USDA FOOD DISTRIBUTION PROGRAMS.”
   (6) Nutritional information must be applied to all primary containers in accordance with the nutrition labeling regulations of the FDA as specified in 21 CFR Part 101.

C. A company name or brand name shall be shown on all shipping containers.

Section 2.3  CONTAINERS AND MATERIALS
A. All containers and packaging materials shall be constructed to meet the requirements of the Food and Drug Administration (FDA) for safe contact with the packaged product. The contractor shall obtain and maintain documentation from the container or packaging material manufacturer to verify that the containers and packaging materials used in this contract were in compliance with the Government’s regulatory requirements for safe contact with food products as required in the Master Solicitation, Part 3, Section A, Number 3.
B. Questions concerning the containers and materials should be directed to:

USDA/FSA/DACO
Room 5755 – South Bldg, STOP 0551
1400 Independence Avenue SW
Washington, DC 20250-0551
ATTN: Packaging

C. If the contractor purchases packaging from a foreign country and/or the package and container is manufactured in a foreign country, the package and container SHALL NOT display country of origin labeling. Phrases similar to but not inclusive of, “Made in [Name of Foreign Country.]” or “Product of [Name of Foreign Country.]” are strictly prohibited.

Section 2.4 25.6 OUNCE AND 4-POUND BAGS

A. The 25.6 ounce and 4-pound bags shall be made of roll stock with the following specifications:

<table>
<thead>
<tr>
<th>Outside Structure</th>
<th>Inside Structure</th>
<th>Total Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET (48 gauge) .48 mil</td>
<td>MDPE + LDPE 2.4 mil</td>
<td>3.98 mil</td>
</tr>
<tr>
<td>Ink - White + LDPE .7 mil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Met/PET (40 gauge) .4 mil</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PET = Polyester
LDPE = Low Density Polyethylene
LLDPE = Linear Low Density Polyethylene
MDPE = Mid Density Polyethylene
Met/PET = Metalized Polyester

B. The bag shall have a flat bottom with a re-sealable top closure.

Section 2.5 UNITIZATION REQUIREMENTS

Shipments shall comply with the following unitization requirements:

A. Unless otherwise specified by the Government, all shipments of packaged products shall be unitized (palletized and stretch wrapped).

B. Pallets shall be:
   (1) Constructed to facilitate the safe handling and transportation of the packaged product, as a unit, without loss or damage.
   (2) A Number 2, four-way, reversible flush stringer with no broken runners or slats.
   (3) Suitable for use in the shipment of food products.
C. Plastic stretch wrap shall be:
(1) Constructed of a plastic film which is to be stretched a minimum of 50 percent beyond its original length when stretched around the pallet load.
(2) Applied as tightly as possible around all tiers of the palletized shipping containers. The shipping containers shall be held firmly in place by the stretch wrap.

D. Pallet loads shall be:
(1) Stacked in such a way as to minimize the amount that shipping containers overhang the edges of pallets.
(2) Blocked and braced or otherwise loaded into the conveyance in a manner that prevents shifting during transit.

Section 2.6 MONTH/YEAR OF PACK
A. The month/year of pack shall be shown on all shipping containers.
B. A date fill code may be applied in addition to, but not in lieu of, the month/year of pack.

Section 2.7 LOT CODE/CERTIFICATE NUMBER
A lot code or official inspection certificate number shall be legibly marked on all primary shipping materials. Contractors may use any type of lot coding system provided a unique code is used to identify each lot under a contract. When requested contractors shall provide to the Government an explanation of the lot coding system utilized.