



U.S. DEPARTMENT OF AGRICULTURE
FFAS-FSA-DACO-KCCO

USDA COMMODITY REQUIREMENTS DOCUMENT (CRD)

BULGUR/SOY-FORTIFIED BULGUR (BWSF16)

FOR USE IN

INTERNATIONAL FOOD ASSISTANCE PROGRAMS

Effective Date: July 17, 2017

BULGUR/SOY-FORTIFIED BULGUR (BWSF16)

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LIST OF ABBREVIATIONS AND ACRONYMS

Below is an Abbreviations Key to the numerous specialized acronyms and abbreviations used in this reference material.

AACC	Association of Cereal Chemists
AOAC	Association of Official Agricultural Chemists
AOCS	American Oil Chemists' Society
ASTM	American Society for Testing and Materials
BAGS	50 KG Polypropylene Bags
BG	Bagged Grain
BWP	Buckwheat
BWSF	Bulgur/Soy-Fortified Bulgur
BWSF16	Bulgur/Soy-Fortified Bulgur
COA	Certificate of Analysis
CONEG	Coalition of Northeast Governors
DACO	Deputy Administrator for Commodity Operations
DEB	Dry Edible Beans
FAS	Foreign Agricultural Service
FDA	Food and Drug Administration
FFAS	Farm and Foreign Agricultural Service
FGIS	Federal Grain Inspection Service
FSA	Farm Service Agency
GM	Gram
IPD	International Procurement Division
IU	International Units
KCCO	Kansas City Commodity Office
KG	Kilogram
LB	Pound
LMR	Language Marking Requirement
MG	Milligram
MR	Milled Rice
PL	Pea and Lentils
PMS	Pantone Matching System
P.p.m.	Parts Per Million
SMR	Standard Marking Requirement
TAPPI	Technical Association of the Pulp and Paper Industry
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USP	U.S. Pharmacopeia
WBSCM	Web Based Supply Chain Management System
WFBF	Wheat Flour/Bread Flour

CONTACT INFORMATION

**Kansas City Commodity Office (KCCO), International Procurement Division (IPD)
Telephone: 816-926-6707 (During Normal Business Hours)**

Mailing Address:

UNITED STATES DEPARTMENT OF AGRICULTURE
Attention: KCCO/IPD
MAILSTOP 8738
P.O. Box 419205
Kansas City, MO 64141-3011

Express Delivery:

UNITED STATES DEPARTMENT OF AGRICULTURE
Attention: KCCO/IPD
MAILSTOP 8738
2312 East Bannister Road
Kansas City, MO 64131-3011

Web-Based Supply Chain Management (WBSCM)

Helpdesk Level 1-Technical Issues

Phone: 877-WBSCM-4U or 877-927-2648 **(During Normal Business Hours)**

UG-MOKANSASC2-FSAWBSCMServiceRequest@kcc.usda.gov

USDA Website:

<http://www.usda.gov/wps/portal/usda/usdahome>

Registered Users Only:

Service Desk email address is WBSCM.servicedesk@caci.com.

On the Log-in prompt enter your email address for both the *User ID* and *Password* (all lower case for password) fields, and then change your password when prompted.

If you have any questions, please contact the WBSCM Service Desk at:

Phone: 877-WBSCM-4U or 877-927-2648 or **Email:** WBSCM.servicedesk@caci.com

COMMODITY SPECIFICATIONS

1.1 BULGUR REQUIREMENTS

- A. The bulgur will be milled from wheat of any of the classes defined in the “Official United States Standards for Grain” except mixtures of wheat of contrasting classes. The wheat shall not contain more than 4.0 percent of damaged kernels. The grain standards are available at: <http://www.gipsa.usda.gov/fgis/standards/810wheat.pdf>
- B. Wheat shall be tested for vomitoxin in accordance with procedures approved by Federal Grain Inspection Service (FGIS) and any wheat testing higher than 2 p.p.m. shall not be used in production of the commodity. The final product shall not contain more than 1 p.p.m. of vomitoxin.
- C. The product shall conform to the requirements in the table below.

Chemical and Physical Requirements ¹ Bulgur		
Item	Requirements	
	Minimum	Maximum
Moisture	---	11.5%
Protein (Nx5.7) ²	9.3%	---
Ash Content		1.8%
Crude Fiber ²	---	2.3%
Foreign Material: Other grains except wheat	---	0.10%
Material except other grains ³	---	0.10%
Scorched particles (whole or pieces of kernels)	---	0.20%
Ungelantized particles (whole or pieces of kernels)	---	1.0%
Whole processed kernels remaining on No. 8 woven-wire-cloth sieve	---	4.0%
Material that will pass through a U.S. Standard No. 8 woven-wire-cloth sieve	80.0%	---
Material that will pass through a U.S. Standard No. 14 woven-wire-cloth sieve	---	18.0%
Material that will pass through a U.S. Standard No. 30 woven-wire-cloth sieve	---	0.9%

D. Product Fortification Requirements

The product must be blended thoroughly and homogeneously mixed with the following nutrients. The finished product should meet specifications listed in the table below:

¹ All percentages are on the basis of weight.

² These limiting values on a moisture-free basis.

³ Including grain hulls either attached or detached. However, any hulls attached to product should be detached before inclusion in the hull fractions.

Nutrient	Required mg/100g Level*	Required mg/lb Level ⁴	Fortificant Form
Vitamin A*	0.11 (366 IU)	0.50 (1662 IU)	Vitamin A Palmitate 250 (spray dried) ⁵
Vitamin B1 (thiamin)	0.4	1.82	Thiamin Mononitrate
Vitamin B2 (riboflavin)	0.4	1.82	Riboflavin
Vitamin B3 (niacin)	4	18.16	Niacinamide
Vitamin B6	0.4	1.82	Pyridoxie hydrochloride
Vitamin B9 (folic acid)	0.154	0.70	Folic Acid
Vitamin B12	0.011	0.05	Vitamin B12 0.1% (water soluble)
Vitamin D3	0.002	0.009	Vitamin D3 100,000 IU/g
Iron (EDTA)*	4	18.2	NaFeEDTA
Zinc	2.4	10.9	Zinc Oxide

* Vitamin A and iron permitted variations in the finished product (i.e., including intrinsic and premix contributions) are:

Finished Product Vitamin A and Iron Ranges		
	Minimum	Maximum
Vitamin A	1662 IU/lb	-----
Iron	20 mg/lb	30 mg/lb

E. Flavor Stability

- (1) When used for fortifying bulgur at the level of 1662 IU/lb, the premix containing Vitamin A Palmitate and 18.2 mg/lb of Iron shall not contribute any off-flavor or odor to the dry mix, or to the prepared cooked products.

⁴ COA for premix should state expected amounts. The permitted variation in premix content is -10 to +15% for added vitamins and +/- 10% for added minerals for acceptance.

⁵ Vitamin A-Palmitate (stabilized) shall be added in encapsulated form containing 250,000 IU Vitamin A- Palmitate/g. Particle size shall comply with the requirement that at least 98 percent will pass through a U.S. Standard No. 50 sieve, at least 90 percent through a U.S. Standard No. 60 sieve, and at least 45 percent through a U.S. Standard No. 100 sieve. The product shall not be less than 95 percent of the all-trans isomer as determined by the USP assay procedure. The Vitamin A-Palmitate shall have storage stability such that not more than 20 percent of its original activity will be lost when stored for 21 days at 45° C in a sealed container at a target level of 11,000 IU per pound in cornmeal or wheat flour having moisture content in the range of 13.5 to 14.5 percent.

- (2) The Vitamin A shall have been tested by the vitamin manufacturers in cornmeal or wheat flour having moisture content in the range of 13.5 to 14.5 percent to assure stability of the vitamin.
- (3) If cornmeal is used for the stability test, the cornmeal used shall be enriched degermed yellow cornmeal, fine granulation, conforming to requirements of the latest revisions and amendments for Commercial Item Description A-A-20066B (June 13, 2008) at <http://www.ams.usda.gov/sites/default/files/media/CID%20Cornmeal%20%28Yellow%20or%20White%29.pdf>
- (4) The cornmeal will be Type III, Class B, Granulation c, Color 2. The cornmeal shall be enriched to contain: 2.0 to 3.0 mg thiamine per pound; 1.2 to 1.8 mg riboflavin per pound; 16.0 to 24.0 mg niacin or niacinamide per pound; 13.0 to 26 mg iron per pound; and 500 to 750 mg calcium per pound.
- (5) If wheat flour is used for the stability test, the flour shall be of 65 to 75 percent extraction and shall be enriched to contain 2.0 to 2.5 mg thiamine per pound; 1.2 to 1.5 mg riboflavin per pound; 16.0 to 20.0 mg niacin per pound; and 13.0 to 16.5 mg iron per pound.

1.2 SOY-FORTIFIED BULGUR REQUIREMENTS

- A. The bulgur will be milled from wheat of any of the classes defined in the “Official United States Standards for Grain” except mixtures of wheat of contrasting classes. The wheat shall not contain more than 4.0 percent of damaged kernels. The grain standards are available at: <http://www.gipsa.usda.gov/fgis/standards/810wheat.pdf>.
- B. Wheat shall be tested for vomitoxin in accordance with procedures approved by Federal Grain Inspection Service (FGIS) and any wheat testing higher than 2 p.p.m. shall not be used in production of the commodity. The final product shall not contain more than 1 p.p.m. of vomitoxin.
- C. The ingredients contained in the blended product must be in the following proportions.

Ingredients	Pounds per 2,000 lb Batch
Bulgur, cracked, fortified	1,700
Soy grits, defatted (toasted) or expeller	300
Total	2,000

- (1) The soy-fortified bulgur, when cooked by mixing one part by volume of the product with two parts by volume water, bringing the mixture to a boil, and boiling gently for 15 minutes, shall be distinctly particulate (individual particles which adhere together to some extent after cooking but will not disintegrate or otherwise lose their identity) but tender and palatable. It must not be ropy or gluey.
- (2) The product shall have a good characteristic taste and odor free from rancid, bitter, musty, sour, and other undesirable or foreign tastes and odors.

- D. The ingredients contained in the blended product must be in the following proportions.

Chemical And Physical Requirements⁶ Soy-Fortified Bulgur		
Item	Requirements	
	Minimum	Maximum
Moisture	---	11.5%
Protein (Nx5.7) ⁷	17.3%	---
Ash Content ⁸		2.8%
Crude Fat ⁷	---	2.6%
Crude Fiber ⁷	---	2.6%
Total Bacteria Count	---	50,000gm
Foreign Material: Other grains except soy grits	---	0.10%
Materials other than cereal grains or soy grits ⁹	---	0.10%
Scorched particles (whole or pieces of kernels)	---	0.20%
Ungelantized particles (whole or pieces of kernels)	---	0.90%
Whole processed kernels remaining on No. 8 woven- wire-cloth sieve	---	3.5%
Material that will pass through a U.S. Standard No. 8 woven-wire-cloth sieve	81.0%	---
Material that will pass through a U.S. Standard No. 14 woven-wire-cloth sieve	---	23.0%
Material that will pass through a U.S. Standard No. 30 woven-wire-cloth sieve	---	1.2%

Micronutrient Specifications in Finished Product		
Item	Requirements	
	Minimum	Maximum
Vitamin A	1662 IU/lb	-----
Iron	27 mg/lb	41 mg/lb

Note: The minimum and maximum levels take into account the added iron and the intrinsic levels of cereals.

- E. Soy-fortified Bulgur will be fortified in accordance with the requirements defined in Section 1.1.D (same as regular bulgur).

1.3 SOY-FORTIFIED BULGUR, CRACKED REQUIREMENTS

- A. The bulgur will be milled from wheat of any of the classes defined in the “Official

⁶ All percentages are on the basis of weight.

⁷ These limiting values are on a moisture-free basis.

⁸ On a dry solids basis.

⁹ Including grain hulls either attached or detached. However, any hulls attached to product should be detached before inclusion in the hull fraction.

United States Standards for Grain” except mixtures of wheat of contrasting classes. The grain standards are available at:
<http://www.gipsa.usda.gov/fqis/standards/810wheat.pdf>.

- B. Wheat shall be tested for vomitoxin in accordance with procedures approved by Federal Grain Inspection Service (FGIS) and any wheat testing higher than 2 p.p.m. shall not be used in production of the commodity. The final product shall not contain more than 1 p.p.m. of vomitoxin.
- C. The wheat must not contain more than 4.0 percent damaged kernels.
- D. The product shall conform to the requirements in the table below.

Chemical And Physical Requirements¹⁰ Soy-Fortified Bulgur, Cracked		
Item	Requirements	
	Maximum	Maximum
Moisture	-----	11.5%
Protein (Nx5.7) ¹¹	10.5%	-----
Crude Fiber	-----	2.0%
Ash	-----	1.8%
Foreign Material: Total	-----	0.20%
Material: Other than Cereal Grains	-----	0.05%
Material except other grains ¹²	-----	0.10%
Scorched particles (whole and/or pieces of kernels)	-----	0.20%
Ungelantized particles (whole and/or pieces of kernels)	-----	1.0%
Whole processed kernels remaining on No. 8 woven-wire-	-----	4.0%
Material that will pass through a U.S. Standard No. 8 woven-	80.0%	-----
Material that will pass through a U.S. Standard No. 14 woven-	-----	23.0%
Material that will pass through a U.S. Standard No. 30 woven-wire-cloth sieve	-----	0.9%

1.4 SOY GRITS, DEFATTED (TOASTED) OR EXPELLER

- A. Soy grits, defatted (toasted) will be the screened, coarsely ground product obtained

¹⁰ All percentages are on the basis of weight. All analyses except moisture are expressed on a moisture-free basis.

¹¹ These limiting values are on a moisture-free basis.

¹² Including grain hulls and whole pieces of grain with the hulls attached.

from selected soybeans by cleaning, cracking, dehulling, tempering, flaking, defatting with hexane, desolventizing, deodorizing, toasting (full cook with color change to light yellow or golden buff), and cooling.

- B. Soy grits, expeller will be the screened, coarsely, ground product obtained from selected soybeans by cleaning, cracking, dehulling, heating, and expeller change to golden buff or tan, and cooling. The product shall conform to the requirements in the table below.

Chemical And Physical Requirements¹³ Soy Grits, Defatted (Toasted) or Expeller		
Item	Requirements	
	Minimum	Maximum
Moisture	---	12.0%
Protein (Nx6.25)	---	---
Crude Fat, defatted, toasted grits	---	1.0%
Crude Fat, expeller grits	5.0%	6.5%
Ash	---	7.0%
Crude Fiber	---	3.5%
Material that will pass through a U.S. Standard No. 8 woven-wire-cloth sieve	90.0%	---
Material that will pass through a U.S. Standard No. 14 woven-wire-cloth sieve	---	75.0%
Material that will pass through a U.S. Standard No. 30 woven-wire-cloth sieve	---	5.0%
Nitrogen Solubility Index	10.0%	30.0%
Urease activity increase in pH	0.05%	---
Total bacteria count	---	50,000gm
Color, defatted, toasted grits	Light yellow to golden	
Color, expeller grits	Golden to tan	
Texture	Reasonably uniform grit	
Odor	Neutral to nutty	
Taste	Pleasant, neutral to slightly nutty	

1.5 QUALITY ASSURANCE

- A. The contractor shall perform the product testing and quality analysis to ensure that the product meets the commodity specifications. The results shall be evidenced by

¹³ All percentages are on the basis of weight. All analyses except moisture are expressed on a moisture-free basis.

a Certificate of Analysis (COA). Copies of the original COA must be submitted as part of the invoice package. The COA shall provide the results of all tests specified. 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. The contractor will obtain a certificate of analysis from their micronutrient supplier that indicates the level and chemical form for each micronutrient in the premix. That COA will be submitted as a part of the invoice package.
- C. Contractors shall notify the Government immediately of lots that fail to meet contract requirements.
- D. Unless otherwise specified, test methods for the finished product, and any ingredients therein, shall be those of the Association of Official Agricultural Chemists (AOAC) International, the American Association of Cereal Chemists (AACC), or the American Oil Chemists' Society (AOCS), as applicable and in effect on the date of issuance of the solicitation, or in accordance with methods that give equivalent results.

1.6 QUALITY DISCOUNTS

If the product to be delivered by the contractor does not meet the quality specifications required herein but falls within the discounts listed, the product may be delivered to the Government, but the purchase price will be reduced in accordance with the following schedule of discounts for each 100 pounds of commodity delivered. A commodity that deviates from the specifications will be rejected.

Bulgur			
Deficient Protein		Excess Whole Kernels Remaining on a No. 8 Sieve	
9.2% or 9.1%	\$0.10	4.1% thru 4.4%	\$0.10
9.0% or 8.9%	\$0.20	4.5% thru 4.8%	\$0.20
8.8%	\$0.35	4.9% or 5.0%	\$0.35
Excess Ungelatinized Particles		Excess Material other than Cereal Grains	
1.1% thru 1.4%	\$0.10	0.11% thru 0.20%	\$0.25
1.5% thru 1.8%	\$0.20		
1.9% or 2.0%	\$0.35		
Excess Ash Percentage Points above Maximum		Excess Other Grains Except Wheat	
.01% or .02%	\$0.10	0.11% thru 0.20%	\$0.25

.03% or .04%	\$0.20		
.05%	\$0.35		
Excess Moisture		Excess Crude Fiber	
11.6% or 11.7%	\$0.10	2.4% or 2.5%	\$0.10
11.8% or 11.9%	\$0.20	2.6% thru 2.7%	\$0.20
12.0%	\$0.35	2.8%	\$0.35
Excess Granulation Through a No. 14 Sieve		Excess Scorched Particles	
19.0% thru 22.0%	\$0.10	0.21% thru 0.30%	\$0.25
23.0% thru 26.0%	\$0.20		
27.0% or 28.0%	\$0.35		
Deficient Granulation Through a No. 8 Sieve		Deficient Calcium	
79.0% thru 70.0%	\$0.10	499 – 440 mg/lb	\$0.05
		439 – 400 mg/lb	\$0.10
		399 – 340 mg/lb	\$0.20
Deficient Granulation Through a No. 30 Sieve		Excess Calcium	
1.0% thru 1.5%	\$0.10	750 – 1247 mg/lb	\$0.0
1.6% thru 2.5%	\$0.20		
2.6% thru 3.0%	\$0.35		

Soy-Fortified Bulgur			
Deficient Protein		Excess Whole Kernels Remaining on a No. 8 Sieve	
17.2% or 17.1%	\$0.10	3.51% thru 4.09%	\$0.10
17.0% or 16.9%	\$0.20	4.10% thru 4.59%	\$0.20
16.8%	\$0.35	4.60% or 5.00%	\$0.35
Excess Ungelatinized Particles		Excess Material other than Cereal Grains and Soy Grits	
.91% thru 1.19%	\$0.10	0.11% thru 0.20%	\$0.25

1.20% thru 1.39%	\$0.20		
1.40%	\$0.35		
Excess Ash Percentage Points above Maximum		Excess Other Grains Except Wheat and Soy Grits	
.01% or .02%	\$0.10	0.11% thru 0.20%	\$0.25
.03% or .04%	\$0.20		
.05%	\$0.35		
Excess Moisture		Excess Crude Fiber	
11.51% or 11.79%	\$0.10	2.61% or 2.89%	\$0.10
11.80% or 11.99%	\$0.20	2.90% thru 3.09%	\$0.20
12.00%	\$0.35	3.10%	\$0.35
Excess Granulation Through a No. 14 Sieve		Excess Crude Fat	
23.01% thru 26.99%	\$0.10	2.61% thru 2.89%	\$0.10
27.0% thru 29.99%	\$0.20	2.90% thru 3.09%	\$0.20
30.00% or 32.00%	\$0.35	3.10%	\$0.35
Deficient Granulation Through a No. 8 Sieve		Deficient Calcium	
80.0% thru 79.0%	\$0.10	499 – 440 mg/lb	\$0.05
78.0% thru 77.0%	\$0.20	439 – 400 mg/lb	\$0.10
76%	\$0.35		
Deficient Granulation Through a No. 30 Sieve		Excess Calcium	
1.21% thru 1.89%	\$0.10	750 – 1247 mg/lb	\$0.0
1.90% thru 2.50%	\$0.20	Excess Scorched Particles	
		0.21% thru 0.30%	\$0.25

CONTAINER AND PACKAGING REQUIREMENTS

2.1 CONTAINERS AND MATERIALS

- A. All containers and packaging 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:

UNITED STATES DEPARTMENT OF AGRICULTURE
Attention: KCCO/IPD
MAILSTOP 8738
P.O. Box 419205
Kansas City, MO 64141-3011

C. If the contractor purchases packaging and container ingredients 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.

D. In addition, all containers and packaging materials shall be constructed to comply with the sum concentration levels of lead, cadmium, mercury, and hexavalent chromium addressed by the Coalition of Northeast Governors (CONEG) model legislation. The sum of the concentration levels of lead, cadmium, mercury and/or hexavalent chromium present in any package or packaging component shall not exceed 100 parts per million. Concentration levels shall be determined using American Standard of Testing Materials test methods, as revised, or U.S. Environmental Protection Agency test methods for evaluating solid waste, S-W 846, as revised.

2.2 50-KILOGRAM BAGS

Contractors may utilize woven polypropylene fabric and circular-woven style bags but are not limited to these constructions. If woven poly bags are used, the following is to apply:

A. The color of the fabric shall be white, unless otherwise specified. At the contractor's discretion, it may use fabric containing marker yarns as a means of identifying the manufacturer of the fabric.

B. The polymer in the fabric shall be 100 percent virgin polypropylene with no recycled material. Rework product will be limited to excess material produced during the initial extrusion process and will be limited to the amount produced during normal continuous operation. A system to identify and document this process must be in place for review by the Government's audit personnel.

C. The fabric in an unstressed state shall permit a minimum air flow of 3 cubic feet per minute per square foot and a maximum of 30 cubic feet per minute per square foot, when tested in accordance with ASTM Test Method D737, as amended.

D. The fabric shall be finished by coating or other suitable method to prevent slippage. Individual test results shall be 28 degrees or greater, when tested in accordance with TAPPI Test Method T-503-OM-84. The fabric shall accept and retain printing ink that will not rub or flake off to a degree where legibility is impaired.

- E. The fabric shall be capable of resisting ultraviolet deterioration for a minimum of 200 hours of exposure in a weatherometer, when tested in accordance with Test Method 5804-Federal Standard 191, as amended. The fabric shall retain 70 percent of its original minimum tensile strength in each direction, after 200 hours exposure, when tested in accordance with Test Method ASTM D 5034 (Grab Test), as amended.
- F. Bags may be flat tube or gusseted.
- G. Bags may be extrusion coated. Extrusion coated bags shall have the proper number, size and location of micro perforations to achieve the air permeability rate required for product stability and fumigation, as well as filling efficiency.
- H. Any bag seams shall be sewn in a manner which prevents the product from leaking through the seams during handling, storage, and distribution.
- I. The color of the sewing thread shall be natural or white. The tensile strength of the sewn seams shall not be less than the tensile strength of the fabric in the body of the bag.
- J. The top and bottom of the bag shall be heat cut or otherwise finished to prevent fraying or unraveling of the fabric during distribution. The bottom seam shall be constructed in accordance with Federal Standard 751a, SSn-1 Single Turnover, as amended. A minimum of 4 stitches per inch is required.

2.3 PERFORMANCE TEST PROCEDURES

- A. All bags shall be capable of withstanding the following performance test for impact resistance.
 - (1) Ten filled and sealed bags shall each survive a single drop test on the butt and side on a shock machine that produces for each test a velocity change of 195 inches per second using a shock duration of .002 seconds without loss of product.
 - (2) Testing shall be conducted under standard temperature (73.4° F plus or minus 1.8° F) and relative humidity (50% plus or minus 2%) conditions.
 - (3) Filled bags shall be placed in the conditioned atmosphere for sufficient time before the tests are conducted for the bag materials to come to equilibrium.
 - (4) Bags submitted under this performance specification shall conform to all other applicable material, construction, and performance specifications.

B. Test Laboratories

Michigan State University School of Packaging 130 Packaging Building East Lansing, MI 48824-1223 (517) 355-9580 http://www.packaging.msu.edu/	Lansmont Corporation 17 Mandeville Court Monterey, CA 93940 (831) 655-6600
Rutgers University Center for Packaging Science and Engineering	Ten-E Packaging Services, Inc. 1666 County Road 74 Newport, MN 55055

Busch Campus
137 Winchester Road,
Piscataway, NJ 08854-8029
(732) 445-3224
<http://catalogs.rutgers.edu/gene-rated/nb->

(651) 459-0671
<http://www.ten-e.com/index.php/package-testing/>

2.4 TEST FREQUENCY

- A. All testing specified shall be performed and documented.
- B. For woven poly bags, the air permeability and ultraviolet resistance tests shall, as a minimum, be performed annually and when a change in the formulation/design of the fabric is being made.
- C. The performance test for impact resistance shall be performed when a change in the formulation/design of the fabric is being made.
- D. For woven poly bags, the slide angle test shall, as a minimum, be performed in-house for every 10,000 lineal meters of fabric production. Testing performed in-house is not required to be performed under the specified temperature and humidity requirements. In addition, the slide angle test shall, as a minimum, be performed annually by an outside testing facility and when a change in the formulation/design of the fabric is being made. This testing shall be performed in accordance with all contract requirements, including the specified temperature and humidity.
- E. All supporting test and quality control documentation shall be retained and made available for review by the Government for a minimum of three years after final payment under the contract.

MARKING REQUIREMENTS

3.1 MARKINGS

- A. The bag shall be marked in the color specified in the markings exhibits. Any markings not shown on the exhibits shall be printed in blue. When printed on the bag, the colors blue and red shall match the Pantone Matching System (PMS) chart numbers 280 and 200, respectively, to the extent practicable.
- B. All dimensions are approximate. Unless otherwise specified, all characters shall be in normal block print.
- C. The US Flag shall be 7 inches high and 12 3/4 inches in total width on the front and back of the applicable bag, see exhibits.
- D. The letters USA shall be Univers black (75) oblique, or Helvetica extra bold with 70% scaling and -70 tracking or equivalent to match the style as shown in the exhibits. The letters USA shall be 6 1/2 inches high and 12 1/2 inches in total width. The three stripes adjacent USA shall be 1 1/4 inches high and printed as close to the edges of the bag as possible, not to exceed 1 1/2 inches from any edge.
- E. The USAID vertical identity, including the logo, brandname, and tagline, shall be printed in the same style as shown in the markings exhibits, sized approximately 7

1/2 inches high and 9 3/8 inches in total width. The USAID logo shall be 4 1/4 inches in diameter. The USAID brandname shall be 2 inches in height. The tagline "FROM THE AMERICAN PEOPLE" shall be 1/2 inch in height. The USAID vertical identity is available to download at <http://www.usaid.gov/branding>.

- F. The USDA logo shall be 5 1/2 inches high and 7 3/4 inches in total width, see exhibits.
- G. The commodity name shall be 1 1/2 inch print. Immediately below the commodity name on the front and back panels insert additional commodity description in 5/8 inch print, if applicable. See Exhibit A for appropriate commodity name/additional commodity description that shall be printed on each bag.
- H. The net weight, contract number and the statement "NOT TO BE SOLD OR EXCHANGED" shall be 3/4 inch print. The bag dimensions and Standard Marking Requirement (SMR) or Language Marking Requirement (LMR) number shall be 1/2 inch print. The contract number, net weight, and SMR and LMR number shall be at the bottom of the bag, centered. See exhibits.
- I. The symbol indicating "USE NO HOOKS" shall be 2 3/4 inches in height. See exhibits.
- J. The letters or symbols used in the language markings for LMR-1, LMR-3, LMR- 4, LMR-5, LMR-7, and LMR-8 should be sized approximately 1 5/8 inches, see exhibits. The language marking for LMR-2 and LMR-6 should be sized to fit as shown in the exhibits.
- K. Lot codes or production codes unique to each lot offered for inspection shall be as small as possible, yet legibly marked on each individual primary container and shipping container. Commodity suppliers may use any type of lot coding system provided a unique code is used to identify each lot offered for inspection under contract.

3.2 MARKING DESCRIPTIONS

The Government shall furnish required markings within two business days after the date of the contract. The procurement of containers should be deferred for at least two business days after the date of the contract.

The following standard marking requirements may be requested under the contract:

Standard Marking Requirement #1 (SMR-1)

USAID – Distribution

Front: US Flag, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USAID logo, contract number, net weight, dimensions, "SMR- 1," and use no hooks symbol. See exhibit SMR-1, front.

Back: Identical to front. See exhibit SMR-1, back.

Standard Marking Requirement #2 (SMR-2)

FAS - Distribution

Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USDA logo, contract number, net weight, dimensions, "SMR-2", and use no hooks symbol. See exhibit SMR-2, front.
Back: Identical. See exhibit SMR-2, back.

Standard Marking Requirement #3 (SMR-3)

USAID – Monetization

Front: US Flag, the commodity name, USAID logo, contract number, net weight, dimensions, "SMR-3," and use no hooks symbol. See exhibit SMR-3, front.
Back: Identical to front. See exhibit SMR-3, back.

Standard Marking Requirement #4 (SMR-4)

FAS or USAID - Monetization

Front: USA with stripes, the commodity name, contract number, net weight, dimensions, "SMR-4," and use no hooks symbol. See exhibit SMR-4, front. Back: Identical. See exhibit SMR-4, back.

Language Marking Requirement #1 (LMR-1)

USAID – Distribution for North Korea

Front: US Flag, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USAID logo, contract number, net weight, dimensions, and "LMR-1" and use no hooks symbol. See exhibit LMR-1, front.
Back: US Flag, the commodity name, North Korean language panel, and "LMR- 1" only. See exhibit LMR-1, back.

Language Marking Requirement #2 (LMR-2)

USAID – Distribution for Afghanistan, with Pashtu and Dari

Front: US Flag, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USAID logo, contract number, net weight, dimensions, and "LMR-2" and use no hooks symbol. See exhibit LMR-2, front.
Back: US Flag, the commodity name, Pashtu and Dari language panel, and "LMR-2" only. See exhibit LMR-2, back.

Language Marking Requirement #3 (LMR-3)

USAID – Distribution for South Africa Region

Front: US Flag, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USAID logo, contract number, net weight, dimensions, and "LMR-3" and use no hooks symbol. See exhibit LMR-3, front.
Back: US Flag, the commodity name, English language panel, and "LMR-3" only. See exhibit LMR-3, back.

Language Marking Requirement #4 (LMR-4)

USAID – Distribution for Iraq with Arabic

Front: US Flag, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USAID logo, contract number, net weight, dimensions, and "LMR-4" and use no hooks symbol. See exhibit LMR-4, front.
Back: US Flag, the commodity name, Arabic language panel, and "LMR-4" only. See exhibit LMR-4, back.

Language Marking Requirement #5 (LMR-5)

FAS – Distribution for North Korea

Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USDA logo, contract number, net weight, dimensions, and "LMR-5" and use no hooks symbol. See exhibit LMR-5, front.

Back: USA with stripes, the commodity name, North Korean language panel, and "LMR-5" only. See exhibit LMR-5, back.

Language Marking Requirement #6 (LMR-6)

FAS – Distribution for Afghanistan, with Pashtu and Dari

Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USDA logo, contract number, net weight, dimensions, and "LMR-6" and use no hooks symbol. See exhibit LMR-6, front.

Back: USA with stripes, the commodity name, Pashtu and Dari language panel, and "LMR-6" only. See exhibit LMR-6, back.

Language Marking Requirement #7 (LMR-7)

FAS – Distribution for South Africa Region

Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USDA logo, contract number, net weight, dimensions, and "LMR-7" and use no hooks symbol. See exhibit LMR-7, front.

Back: USA with stripes, the commodity name, English language panel, and "LMR-7" only. See exhibit LMR-7, back.

Language Marking Requirement #8 (LMR-8)

FAS – Distribution for Iraq with Arabic

Front: USA with stripes, the commodity name, the words "NOT TO BE SOLD OR EXCHANGED," USDA logo, contract number, net weight, dimensions, and "LMR-8" and use no hooks symbol. See exhibit LMR-8, front

Back: USA with stripes, the commodity name, Arabic language panel, and "LMR-8" only. See exhibit LMR-8, back.

3.3 EMPTY BAG DIMENSIONS

A. All bags shall be marked with the empty dimensions as follows:

Gusseted Bags	Face Width x Gusseted Width x Finished Length
Flat Tube Bags	Face Width x Finished Length

B. The dimensions shall be printed at the bottom of the bag, centered, see exhibits.

C. The finished size of the circular woven polypropylene bags will be determined by the contractor, unless otherwise specified by the contracting officer.

3.4 CONTAINERS WITH INCORRECT MARKINGS

A. Any labels, bags, cans, can lids, cases, or any other type of packaging (hereinafter referred to as "containers") displaying incorrect markings may be used under a Government contract provided that the incorrect markings are obliterated and correct markings are applied in a permanent manner with approval of the contracting

officer.

- B. The appearance of containers in commercial or other channels either filled or unfilled bearing markings identifying the containers as part of a Government contract may cause the Government expense in determining whether commodities have been diverted from authorized use and in answering inquiries. The contractor shall take all necessary action to prevent the appearance in commercial or other channels of containers and container materials bearing any markings required under a Government contract, including those held by the contractor or others; e.g., overruns, misprints, etc. The contractor shall ensure that any container from a Government contract that appears in commercial or other channels shall have all markings required under this contract permanently obliterated.

Exhibit A

List of Commodity Names Printed on 50 Kilogram Woven Polypropylene Bags

Commodity Requirements	Commodity Name	Commodity Requirements	Commodity Name	
Bulgur/ Soy-Fortified Bulgur (BWSF)	BULGUR	Dry Edible Beans (DEB)	BLACK BEANS	
	SOY-FORTIFIED BULGUR		BLACKEYE BEANS	
Buckwheat (BWP)	BUCKWHEAT GROATS		DARK RED KIDNEY BEANS	
	BUCKWHEAT GRITS		LIGHT RED KIDNEY BEANS	
	BUCKWHEAT FLOUR		GARBANZO BEANS	
Bagged Grain (BG)	WHEAT HARD RED WINTER		Peas and Lentils (PL)	GREAT NORTHERN BEANS
	WHEAT SOFT WHITE	PEA BEANS		
	WHEAT HARD RED SPRING	PINK BEANS		
	WHEAT NORTHERN SPRING	PINTO BEANS		
	SORGHUM	SMALL RED BEANS		
	YELLOW CORN	SMALL WHITE BEANS		
	YELLOW SOYBEANS			
Milled Rice (MR)	MILLED RICE LONG GRAIN			LENTILS
	MILLED RICE MEDIUM GRAIN			SPLIT GREEN PEAS
	MILLED RICE SHORT GRAIN			SPLIT YELLOW PEAS
	MILLED RICE PARBOILED		SMOOTH GREEN DRY PEAS	
Wheat Flour/ Bread Flour (WFBF)	FLOUR ALL PURPOSE		SMOOTH YELLOW DRY PEAS	
	BREAD FLOUR			
50 KG Polypropylene Bags (BAGS)	WHEAT			
	CORN			
	SORGHUM			
	SOYBEANS			
	SOYBEAN MEAL			



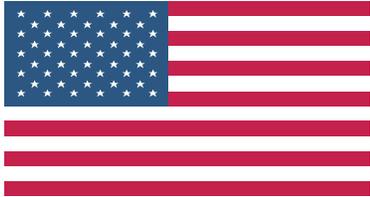
COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234
NET WEIGHT: 50 kg, 110.23 lb.
23 x 39
SMR-1



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234
NET WEIGHT: 50 kg, 110.23 lb.
23 x 39
SMR-1





COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

SMR-2



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

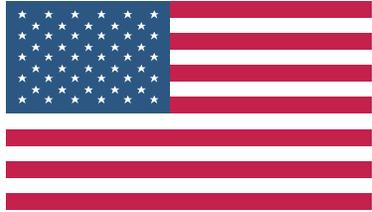
23 x 39

SMR-2



SMR-3

FRONT



COMMODITY NAME



USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

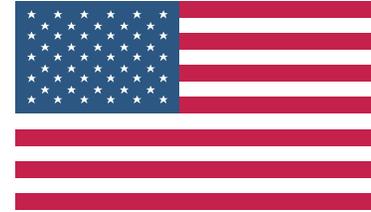
23 x 39

SMR-3



SMR-3

BACK



COMMODITY NAME



USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

SMR-3





COMMODITY NAME



CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

SMR-4



COMMODITY NAME



CONTRACT ABCD01234

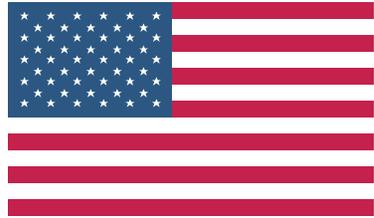
NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

SMR-4

LMR-1

FRONT



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

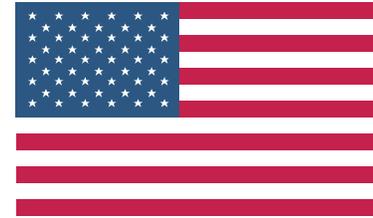
23 x 39

LMR-1



LMR-1

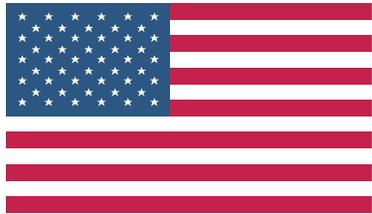
BACK



COMMODITY NAME

미국에서
보내온 선물

LMR-1



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



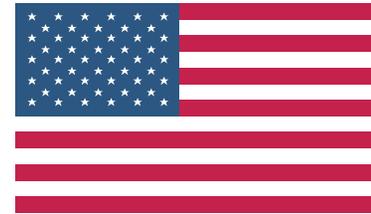
USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

LMR-2



COMMODITY NAME

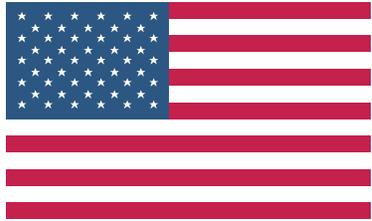
د امریکا د متحده ایالاتو

د خلکو سوغات

تحفهء مردم

ایالات متحده امریکا

LMR-2



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



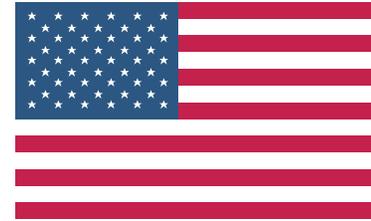
USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

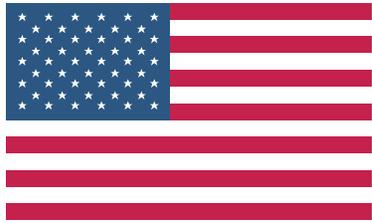
LMR-3



COMMODITY NAME

**Gift of the People of the
United States of America**

LMR-3



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



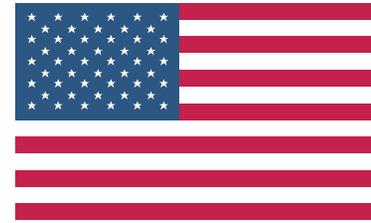
USAID
FROM THE AMERICAN PEOPLE

CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

LMR-4



COMMODITY NAME

هدية من
الشعب الأمريكي

LMR-4



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

LMR-5



COMMODITY NAME

미국에서
보내온 선물

LMR-5



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

LMR-6




COMMODITY NAME

د امریکا د متحده ایالاتو

د خلکو سوغات

تحفهء مردم

ایالات متحده امریکا

LMR-6



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

LMR-7



COMMODITY NAME

**Gift of the People of the
United States of America**

LMR-7



COMMODITY NAME

NOT TO BE SOLD OR EXCHANGED



CONTRACT ABCD01234

NET WEIGHT: 50 kg, 110.23 lb.

23 x 39

LMR-8



COMMODITY NAME

هدية من
الشعب الأمريكي

LMR-8