

Farm Service Agency
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USDA COMMODITY REQUIREMENTS

BOT2 BULK OIL AND TALLOW

FOR USE IN INTERNATIONAL FOOD ASSISTANCE PROGRAMS

Effective Date: November 1, 2013

USDA COMMODITY REQUIREMENTS DOCUMENT

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Part 1 COMMODITY SPECIFICATIONS

Section 1.1 Crude Degummed Soybean Oil

- A. **Quality:**
The quality of the Crude Degummed Soybean Oil shall correspond to the following specifications described in Rule 103, Section 3 of the National Oilseed Processors Association's Trading Rules for the Purchase and Sale of Soybean Oil, dated October 2012. Product which deviates from these specifications shall be rejected.
- B. **Analytical Requirements:**
The chemical analysis to determine quality shall include the qualitative test for fish oil and marine animal oils as prescribed by Association of Official Analytical Chemists (AOAC) Method No. 974.20 and shall be negative.

Item	Max.	Min.	AOCS Method
Unsaponifiable Matter	1.5%		Ca 6a-40
Free Fatty Acids, as Oleic	0.75%		Ca 5a-40
Moisture, Volatile Matter and Insoluble Impurities	0.3%		M&V Ca 2c-25 Ca 3a-46
Flash Point		250°F	Cc 9c-95
Phosphorus	0.02%		Ca 12-55

- C. **Discounts:**
If the product to be delivered by the contractor does not meet the analytical requirements above, but falls within the ranges listed below, the product may be delivered to the Government, but the purchase price will be reduced in accordance with the following schedule of discounts.

Item	Range	Discount
Free Fatty Acids	0.76% - 0.85%	0.2% of contract price
	0.86% - 0.95%	0.4% of contract price
	0.96% - 1.05%	0.6% of contract price
	1.06% - 1.15%	0.9% of contract price
	1.16% - 1.25%	1.2% of contract price
Phosphorus	.021%	0.2% of contract price
	.022%	0.4% of contract price
	.023%	0.6% of contract price
	.024%	0.9% of contract price
	.025%	1.2% of contract price

- D. **Physical Requirements:**
 Crude Degummed Soybean Oil shall be pure soybean oil, produced from fair average quality crude soybean oil from which the major portion of the gums naturally present has been removed by hydration and mechanical or physical separation. It shall be equal in quality to soybean oil produced for domestic consumption.

Section 1.2 Fully Refined Soybean Oil

- A. **Quality:**
 Fully Refined Soybean Oil sold for export shall be pure soybean oil. It shall be produced from fair average quality crude soybean oil from which essentially all of the free fatty acids and non-oil substances have been removed by refining treatments. It shall meet the following specifications, as described in Rule 103, Section 3 of the National Oilseed Processors Association’s Trading Rules for the Purchase and Sale of Soybean Oil, dated October 2012. Product which deviates from these specifications shall be rejected.
- B. **Analytical Requirements:**
 The chemical analysis to determine quality shall include the qualitative test for fish oil and marine animal oils as prescribed by AOAC Method No. 974.20, and shall be negative. Preservatives (GRAS) are permitted.

Item	Max.	Min.	AOCS Method
Color, Lovibond	20 Yellow/2.0 Red		Cc 13b-45
Free Fatty Acids, as Oleic	0.05% by weight		Ca 5a-40
Peroxide Value	2.0 meq./kgm.		Cd 8b-90
Cold Test		5.5 hrs	Cc 11-53
Fat Stability – AOM		8 hrs- 35 meq./kgm.	Cd 12b-92
Moisture + Volatile Matter	0.10% by weight		Ca 2c-25
Unsaponifiable Matter	1.5%		Ca 6a-40

- C. **Physical Requirements:**
 The oil shall:
- 1) be clear and brilliant in appearance at 70-85°F
 - 2) be free from settlings or foreign matter of any kind
 - 3) have a clean, fresh flavor and shall be free from rancid, beany, painty, sour, or other objectionable flavors or odors, as specified in U.S. Department of Agriculture Specification A-A-20091D, dated May 7, 2002 at:
<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELDEV3006232>.

Section 1.3 Crude Corn Oil

A. Quality:
The oil shall meet the specifications as described in Rule 6.14 of the National Institute of Oilseed Products Trading Rules, dated July 2013.

B. Analytical Requirements:

Item	Maximum	Basis
Free Fatty Acids, as Oleic	5.0%	3.0%
Moisture and Impurities	1.0%	0.5%

C. Discounts:

- 1) The free fatty acids, as oleic, shall be discounted 0.5% of the contract price for each 1.0% in excess of 3.0%, fractions in proportion.
- 2) The moisture and impurities shall be discounted 0.1% of the contract price for each 0.1% in excess of 0.5%, fractions in proportion.

D. Physical Requirements:

The crude corn oil shall be pure and produced only from corn of fair average quality. Product which deviates from these specifications shall be rejected.

Section 1.4 Crude Sunflower Seed Oil (Including Nusun®)

A. Quality:
The quality of the crude sunflower seed oil shall correspond to the following specifications contained in the American Fats and Oils Association (AFOA) Trade Rules for Vegetable Oils (Export Contract), Rules 14A-14B, or any modifications agreed to, that are in effect on the date the contract is entered into.

B. Analytical Requirements:

Item	Max.	Min.	Method
Flash Point		250°F	Cc 9b-55
Halphen Test	Negative		
Saponification Value	194	188	
Unsaponifiable	1.3%		
Free Fatty Acid, as Oleic	3.0%	Basis 2.0%	
Moisture and Volatile Matter	0.5%		Ca 2d-25
Insoluble Impurities	0.3%		Ca 3-46
Color (in 5 ¼ inch cell or tube), Bleached, After Refining	2.5 Red		Cc 13b-45 Cc 8g-52 Ca 9a-52
Linolenic Acid	1.0%		
Oleic Acid (as % of TFA) (applicable for NuSun® only)	75%	55%	

C. Discounts:

Free Fatty Acid, as Oleic, shall be discounted 0.1% of the invoice value for each 0.1% of free fatty acid in excess of 2.0%; fractions in proportion.

D. Physical Requirements:

The crude sunflower seed oil (including NuSun®) shall be pure and produced only from sunflower seeds of fair average quality by hydraulic, expeller or solvent extraction process. Product which deviates from these specifications shall be rejected.

Section 1.5 Tallow

A. Quality:

The quality of the tallow shall correspond to the specifications contained in Rule 7 of the Trade Rules of the American Fats and Oils Association (AFOA) for Animal Tallow and Grease (Export Contract), or any modifications agreed to, that are in effect on the date the contract is entered into. The grade and commodity specifications shall be specified in the solicitation.

B. Analytical Requirements:

Grade	Specifications #				
	Titre Minimum	FFA Maximum	FAC Maximum	R&B Maximum	MIU Maximum
Edible Tallow	41.0	0.75	3	none	*
Lard (Edible)	38.0	0.50	**	none	*
Top White Tallow	41.0	2.00	5	0.50	1
All Beef Packer Tallow	42.0	2.00	none	0.50	1

Grade	Specifications #				
	Titre Minimum	FFA Maximum	FAC Maximum	R&B Maximum	MIU Maximum
Extra Fancy Tallow	41.0	3.00	5	none	1
Fancy Tallow	40.5	4.00	7	none	1
Bleachable Fancy Tallow	40.5	4.00	none	1.50	1
Prime Tallow	40.5	6.00	13-11B	none	1
Special Tallow	40.0	10.00	21	none	1
No. 2 Tallow	40.0	35.00	none	none	2
“A” Tallow	39.0	15.00	39	none	2
Choice White Grease	36.0	4.00	13-11B	none	1
Yellow Grease	***	*****	39	none	2
“Technical Tallow (inedible)” as Grade 1A	41.0	0.75	3	none	*
Used Cooking Oil	***	15.00	39	none	2

Impurities shall not exceed 0.15% except as otherwise negotiated by buyer and seller on a contract-by-contract basis.

* Moisture maximum 0.20%. Insoluble Impurities maximum 0.05%

** Lovibond Color 5 1/4 inch cell – Max. 1.5 Red. Lard Peroxide Value 4.0 ME/K Max.

*** Titre minimum, when required, to be negotiated between buyer and seller on a contract-by-contract basis.

***** FFA Maximum, when required, to be negotiated between buyer and seller on a contract-by-contract basis.

C. Deviations/Discounts:

All the tolerances and discounts as provided for in AFOA rules 9, 10, and 11 will apply.

D. Physical Requirements:

The bulk tallow shall contain only fluids and fatty acids natural to the product except for such other substances in such amounts as might occur unavoidably in accordance with industry practice. Commodities are to be free from sludge and tank bottoms.

Part 2 SAMPLING, ANALYSIS AND SURVEY

A. Upon receipt of the ten day pre-advice, or at KCCO’s request, the contractor shall furnish a statement showing the name and address of the persons, firms or agency designated in the following paragraphs that will perform the sampling, analysis and surveying service.

- B. The drawing of samples and laboratory analysis will be performed by an independent surveyor(s) and commercial chemist(s) at the contractor's expense. When utilizing the services of a private, independently owned and operated laboratory, the following applies:
1. The samples shall be drawn from each ship's tank(s). When more than one (1) shipper supplies material for a commingled shipment, a representative sample of each shipper's material shall be secured, prior to commingling.
 2. All samples shall be obtained in accordance with American Oil Chemists' Society Method C 1-47.
 3. The chemical analysis by commercial chemist(s) shall be performed under methods prescribed in the Trading Rules of the National Oilseed Processors Association or the American Fats and Oils Association, as applicable.
- C. Prior to loading, each tank into which the commodity is to be loaded shall be examined by the independent surveyor to determine that the tanks(s) are clean and otherwise suitable for receipt and carriage of the bulk commodity.
- D. Sampling, Analysis and Inspection procedures shall be performed in accordance with the trading rules governing the commodity.

Part 3 WEIGHTS

Determination of weight shall be by an independent surveyor mutually agreeable to the Government and the contractor. The weight shall be determined at the time of loading onboard the vessel. See the [Master Solicitation for Commodity Procurements](#) dated 10/31/2013, Part 3 Contract Clauses, Section A.2.(f.).