

METRIC

A-A-20087D

April 18, 2012

SUPERSEDING

A-A-20087C

April 28, 2006

## COMMERCIAL ITEM DESCRIPTION

### SOY SAUCE

The U.S. Department of Agriculture (USDA) has authorized the use of this Commercial Item Description (CID).

**1. SCOPE.** This CID covers soy sauce, packed in commercially acceptable containers, suitable for use by Federal, State, local governments, and other interested parties; and as a component of operational rations.

#### **2. PURCHASER NOTES.**

##### **2.1 Purchasers *shall specify* the following:**

- Type(s) of soy sauce required (Sec. 3).
- When analytical requirements are different than specified (Sec. 6.1).
- When analytical requirements need to be verified (Sec. 6.2).
- Manufacturer's/distributor's certification (Sec. 9.3) or USDA certification (Sec. 9.4).

##### **2.2 Purchasers *may specify* the following:**

- Food Defense Section 9.1: Food Defense System Survey (FDSS) (Sec. 9.1.1), or Food Defense Addendum to Plant Systems Audit (PSA) (Sec. 9.1.2), or (Sec. 9.1.2 with 9.2.1).
- Manufacturer's quality assurance (Sec. 9.2 with 9.2.1) or (Sec. 9.2 with 9.2.2).
- Packaging requirements other than commercial (Sec. 10).

**3. CLASSIFICATION.** The soy sauce shall conform to the following list which shall be specified in the solicitation, contract, or purchase order.

#### **Types.**

**Type I** - Fermented

**Type II** - Non-fermented

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**Type III** - Non-fermented, Light in sodium (Lite) (21 Code of Federal Regulations (CFR) § 101.56)

**Type IV** - Fermented, Reduced sodium (21 CFR § 101.61)

### **4. MANUFACTURER'S/DISTRIBUTOR'S NOTES. Manufacturer's/distributor's products shall meet the requirements of the:**

- Salient characteristics (Sec. 5).
- Analytical requirements: *as specified by the purchaser* (Sec. 6).
- Manufacturer's/distributor's product assurance (Sec. 7).
- Regulatory requirements (Sec. 8).
- Quality assurance provisions: *as specified by the purchaser* (Sec. 9).
- Packaging requirements other than commercial: *as specified by the purchaser* (Sec. 10).

### **5. SALIENT CHARACTERISTICS.**

**5.1 Processing.** The soy sauce shall be prepared in accordance with current Good Manufacturing Practices (21 CFR Part 110).

**5.1.1 Type I - Fermented.** The fermented soy sauce shall be produced from the fermentation of soybeans or defatted soybeans with fermented mash together with salt brine and with or without preservatives, such as benzoic acid or sodium benzoate. The fermented mash is derived from enzymatic digestion of Koji with salt brine and from fermentation by yeast and lactic acid bacteria. Koji shall be a mixture of wheat and soybeans or defatted soybeans cultured with the mold, *Aspergillus oryzae* or *Aspergillus soyae*.

**5.1.2 Type II - Non-fermented.** The non-fermented soy sauce shall be a blend of hydrolyzed vegetable protein, salt, corn syrup or sugar, caramel color, and water. The non-fermented soy sauce may contain wheat, vinegar and/or organic acids (such as acetic or citric acid), and preservatives.

**5.1.3 Type III - Non-fermented, Light in sodium (Lite).** The light in sodium soy sauce shall be non-fermented, reduced by 50 percent or more in sodium content per serving size when compared to the reference food as defined by 21 CFR § 101.13.

**5.1.4 Type IV - Fermented, Reduced sodium.** The reduced sodium soy sauce shall be fermented, reduced by 25 percent or more in sodium content per serving size when compared to the reference food as defined in 21 CFR § 101.13.

**5.2 Food security.** The soy sauce should be processed and transported in accordance with the Food and Drug Administration's (FDA's) *Guidance for Industry: Food Producers, Processors,*

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and Transporters: *Food Security Preventive Measures Guidance*.

<http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodDefenseandEmergencyResponse/ucm083075.htm>. This guidance identifies the kinds of preventive measures food manufacturers, processors, or handlers may take to minimize the risk that food under their control will be subject to tampering or other malicious, criminal, or terrorist actions. The implementation of enhanced food security preventive measures provides for the security of a plant's production processes and includes the storage and transportation of pre-production raw materials, other ingredients, and postproduction finished product.

**5.3 Flavor.** The Type I and Type II soy sauce shall have a well-blended, palatable, tart, and salty flavor. The Type III and Type IV soy sauce shall have a well-blended, palatable, tart, and slightly salty flavor.

**5.4 Color and appearance.** Type I soy sauce shall be a clear reddish-brown liquid. Type II soy sauce shall be a clear dark-brown liquid. Types III and IV soy sauce shall be a reddish-brown or dark brown liquid. All types shall be practically free of sediment.

**5.5 Foreign material.** All ingredients and finished product shall be clean, sound, wholesome, and free from evidence of rodent or insect infestation.

## 6. ANALYTICAL REQUIREMENTS.

**6.1 Analytical requirements.** Unless otherwise specified in the solicitation, contract, or purchase order, the analytical requirements for the soy sauce shall be as follows:

**TABLE I. Analytical requirements (percent by weight)**

	Type I Fermented	Type II Non- Fermented	Type III Non-Fermented Light in Sodium (Lite)	Type IV Fermented Reduced Sodium
<b>Titrateable acidity (as acetic)</b>	0.90 - 1.35	0.8 - 1.6	1.2 - 2.0	---
<b>Total salt (as NaCl)</b>	13.5 - 16.0	13.0 - 21.0	6.5 - 10.5	8.1 - 12.0
<b>pH (value)</b>	4.5 - 5.2	4.5 - 6.0	4.2 - 5.0	4.2 - 5.0
<b>Protein (Nx6.25) (NLT) 1/</b>	7.5	4.5	3.9	8.3
<b>Invert sugar (NMT) 2/</b>	---	10.0	---	---
<b>Alcohol</b>	1.0 - 3.5	---	---	1.7 - 3.5

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**TABLE I. Analytical requirements (percent by weight) continued**

	<b>Type I Fermented</b>	<b>Type II Non- Fermented</b>	<b>Type III Non-Fermented Light in Sodium (Lite)</b>	<b>Type IV Fermented Reduced Sodium</b>
<b>Total solids (NLT) <u>1/</u> (Vacuum oven)</b>	28.0	32.0	23.0	24.0
<b>Water activity (<math>a_w</math>) (NMT) (value) <u>2/</u></b>	---	---	0.85 <u>3/</u>	0.85 <u>3/</u>

1/ NLT = Not Less Than2/ NMT = Not More Than3/ An  $a_w$  not more than 0.85 is required when the salt level is less than 10.0 percent, or the product has not been hot filled at a minimum temperature of 85°C (185°F).

**6.2 Product verification sampling.** When USDA verification of analytical requirements is specified in the solicitation, contract, or purchase order, analytical testing shall be performed on a composite sample. The composite sample shall be 454 g (1 lb) prepared from five randomly selected subsamples. Subsamples shall be a minimum of one pouch/container and shall contain the appropriate number of pouches/containers to yield a 454 g (1 lb) sample when composited. Each subsample shall contain equal amounts of product to yield at least a 454 g (1 lb) sample.

**6.3 Analytical testing.** When specified in the solicitation, contract, or purchase order, the analyses shall be made in accordance with the following methods from the Official Methods of Analysis of the AOAC International:

<b><u>Test</u></b>	<b><u>Method</u></b>
Titratable acidity (as acetic)	942.15
Total salt	971.27
pH	981.12
Protein	984.13 or 992.15
Invert sugar	923.09, 906.03 or 2000.17

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<u>Test</u>	<u>Method</u>
Alcohol	950.04 or 942.06
Total solids	935.56 or 990.20
a <sub>w</sub>	978.18

**6.4 Test results.** The test results for salt, protein, invert sugar, alcohol, and total solids shall be reported to the nearest 0.1 percent. Titratable acidity for Type I shall be reported to the nearest 0.01 percent and 0.1 percent for Type II and Type III. The test result for a<sub>w</sub> for Type III and Type IV shall be reported to the nearest 0.01 value. The test result for the pH shall be reported to the nearest 0.1 value. Any result not conforming to the analytical requirements shall be cause for rejection of the lot.

**7. MANUFACTURER'S/DISTRIBUTOR'S PRODUCT ASSURANCE.** The manufacturer/distributor shall certify that the soy sauce provided shall meet the salient characteristics of this CID, conform to their own specifications, standards, and quality assurance practices, and be the same soy sauce offered for sale in the commercial market. The purchaser reserves the right to require proof of conformance.

**8. REGULATORY REQUIREMENTS.** The delivered soy sauce shall comply with all applicable Federal, State, and local mandatory requirements and regulations relating to the preparation, packaging, labeling, storage, distribution, and sale of soy sauce within the commercial marketplace. Delivered soy sauce shall comply with all applicable provisions of the Federal Food, Drug, and Cosmetic Act; the Fair Packaging and Labeling Act; and regulations promulgated thereunder. The soy sauce shall comply with the allergen labeling requirements of the Federal Food, Drug, and Cosmetic Act.

**9. QUALITY ASSURANCE PROVISIONS.** *Purchaser shall specify 9.3 or 9.4; purchaser may specify 9.1 with 9.1.1, or 9.1 with 9.1.2, 9.1.2 with 9.2.1, or 9.2 with 9.2.1, or 9.2 with 9.2.2.*

**9.1 Food Defense.** When required in the solicitation, contract, or purchase order, a Food Defense System Survey (FDSS) shall be conducted by USDA, Agricultural Marketing Service (AMS), Fruit and Vegetable Programs (FV), Processed Products Division (PPD). Food Defense requirements include a documented and operational food defense plan that provides for the security of a plant's production processes and includes the storage and transportation of pre-production raw materials and other ingredients and postproduction finished product. The plan shall address the following areas: (1) food security plan management; (2) outside and inside security of the production and storage facilities; (3) slaughter, when applicable, and processing,

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including all raw material sources; (4) shipping and receiving; (5) storage; (6) water and ice supply; (7) mail handling; (8) personnel security; and (9) transportation, shipping, and receiving.

**9.1.1 FDSS.** When required in the solicitation, contract, or purchase order, a FDSS shall be conducted by USDA, AMS, PPD. The FDSS verifies that operators of food establishments have implemented measures to minimize the risk of tampering or other criminal actions against the food under their control. *(An AMS, FDSS verifies the participating company's adherence to the FDA's "Guidance for Industry - Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance.") For further information, see section 12.1 and 12.3.2.*

**9.1.2 Food Defense Addendum to Plant Systems Audit (PSA).** When required in the solicitation, contract, or purchase order, a Food Defense addendum shall be conducted by USDA, AMS, PPD auditors. This verifies that operators of food establishments have implemented measures to minimize the risk of tampering or other criminal actions against the food under their control. *(An AMS, FDSS verifies the participating company's adherence to the FDA's "Guidance for Industry - Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance.") For further information, see section 12.1 and 12.3.2.*

**9.2 Manufacturer's quality assurance.** When required in the solicitation, contract, or purchase order, the product manufacturer shall be required to provide evidence, by certificate, that the manufacturing plant has undertaken one of the following quality assurance measures within 12 months prior to providing a bid, or no later than 10 business days from the date of awarding of the contract. Failure to provide this documentation within the proper time frame may result in the contract being terminated for cause.

**9.2.1 PSA.** A PSA conducted by USDA, AMS, or other audit performed by a third party auditing service and is required within 12 months prior to the date of the awarding of the contract. *(An AMS PSA verifies the manufacturer's capability to produce products in a clean, sanitary environment in accordance with 21 CFR Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food, and verifies that the manufacturer has in place an internal quality assurance program.)* (Perform with Food Defense addendum when required).

**9.2.2 Plant survey.** A plant survey conducted by USDA, AMS, or other survey performed by a third party auditing service is required within 12 months prior to the date of the awarding of the contract. *(An AMS plant survey audit verifies that at the time of the survey, the manufacturer produces products in a clean sanitary environment in accordance with 21 CFR Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food.)*

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**9.3 Manufacturer's/distributor's certification.** When required in the solicitation, contract, or purchase order, the manufacturer/distributor will certify that the finished soy sauce distributed meets or exceeds the requirements of this CID.

**9.4 USDA certification.** When required in the solicitation, contract, or purchase order that product quality, or acceptability or both be determined, the USDA, AMS, FV, PPD shall be the certifying program. PPD inspectors shall certify the quality and acceptability of the soy sauce in accordance with PPD procedures which include selecting random samples of the soy sauce, evaluating the samples for conformance with the salient characteristics of this CID and other contractual requirements, and documenting the findings on official PPD score sheets and/or certificates. In addition, when required in the solicitation, contract, or purchase order, PPD inspectors will examine the soy sauce for conformance to the United States Standards for Condition of Food Containers in effect on the date of the solicitation.

**10. PACKAGING.** Preservation, packaging, packing, labeling, and case marking shall be commercial unless otherwise specified in the solicitation, contract, or purchase order.

**11. USDA INSPECTION NOTES.** When Section 9.4 is specified in the solicitation, contract, or purchase order, USDA certification shall include evaluation of the quality and condition of samples of packaged soy sauce, and compliance with requirements in the following areas:

- Salient characteristics (Sec. 5).
- Analytical requirements *when specified in the solicitation, contract, or purchase order* (Sec. 6.1). When USDA analytical testing is specified, PPD inspection personnel shall select samples and submit them to the USDA, Science and Technology Programs (S&TP) laboratory for analysis.
- Packaging requirements (Sec. 10 or as specified in the solicitation, contract, or purchase order).

**12. REFERENCE NOTES.**

**12.1 USDA certification, Plant Survey, PSA, and FDSS.** For USDA certification, Plant Survey, PSA, and FDSS contact the **Chief, Inspection and Standardization Branch, PPD, FV, AMS, USDA, STOP 0247, 1400 Independence Avenue, SW, Washington, DC 20250-0247, telephone (202) 720-4693, Fax (202) 690-1527, or via E-mail: [albert.hoover@ams.usda.gov](mailto:albert.hoover@ams.usda.gov) or [chere.shorter@ams.usda.gov](mailto:chere.shorter@ams.usda.gov).**

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**12.2 Analytical testing and technical information contact.** For USDA technical information on analytical testing, contact the **Director, USDA, AMS, S&TP, Laboratory Division, 801 Summit Crossing Place, Suite B, Gastonia, NC 28054, telephone (704) 867-3873, Fax (704) 853-2800, or via E-mail: [AMSLaboratoryDivision@ams.usda.gov](mailto:AMSLaboratoryDivision@ams.usda.gov).**

**12.3 Sources of documents.**

**12.3.1 Source of information for nongovernmental document is as follows:**

Copies of the Official Methods of Analysis of the AOAC International may be obtained from: **AOAC International, 481 North Frederick Avenue, Suite 500, Gaithersburg, MD 20877-2417, telephone (301) 924-7077, (800) 379-2622 or on the Internet at: <http://www.aoc.org>.**

**12.3.2 Sources of information for governmental documents are as follows:**

Applicable provisions of the Fair Packaging and Labeling Act are contained in 16 CFR Parts 500 to 503, and the Federal Food, Drug, and Cosmetic Act are contained in 21 CFR Parts 1 to 199. These documents may be purchased from: **Superintendent of Documents, New Orders, P.O. Box 979050, St. Louis, MO 63197-9000. Credit card (Visa, MasterCard, Discover/NOVUS, and American Express) purchases may be made by calling the Superintendent of Documents on (866) 512-1800, (202) 512-1800 or on the Internet at: <http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR>.**

Copies of Guidance for Industry - Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance is available online from: **FDA, CFSAN on the Internet at: <http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/FoodDefenseandEmergencyResponse/ucm083075.htm>.**

Copies of this CID and the United States Standards for Condition of Food Containers are available from: **Director, PPD, FV, AMS, USDA, STOP 0247, 1400 Independence Avenue, SW, Washington, DC 20250-0247, telephone (202) 720- 9939, Fax (202) 690-1527, via E-mail: [FQAStaff@ams.usda.gov](mailto:FQAStaff@ams.usda.gov) or on the Internet at: <http://www.ams.usda.gov/FQAS>.**

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: **Defense Logistics Agency (DLA) Troop Support, ATTN: FTSA, 700 Robbins Avenue, Philadelphia, PA 19111-5092 or Fax (215) 737-2963, or via E-mail: [dscpsubweb@dla.mil](mailto:dscpsubweb@dla.mil).**



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Military activities should submit requests for copies of this CID to: **Standardization Documents Order Desk, DLA Document Services, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094** or on the Internet at: <https://assist.daps.dla.mil> or <https://assist.daps.dla.mil/quicksearch/>.

**MILITARY INTERESTS:****Custodians**

Army - GL  
Navy - SA  
Air Force - 35

**CIVIL AGENCY COORDINATING ACTIVITIES:**

DOJ - BOP  
HHS - NIH, IHS  
USDA - FV  
VA - OSS

**Review Activities**

Army - MD, QM  
Navy - MC

**PREPARING ACTIVITY:**

DLA - SS  
(Project No. 8950-2011-001)

**NOTE:** The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil>.

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