

METRIC

A-A-20087B

September 22, 2000

SUPERSEDING

A-A-20087A

March 26, 1987

COMMERCIAL ITEM DESCRIPTION

SOY SAUCE

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

1. SCOPE. This Commercial Item Description (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. PROCUREMENT 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 9.2) or USDA certification (Sec 9.3).

2.2 Purchasers *may specify* the following:

- Manufacturer's quality assurance (Sec 9.1 with 9.1.1) or (Sec 9.1 with 9.1.2).

3. CLASSIFICATION. The soy sauce shall conform to the following types as specified in the solicitation, contract, or purchase order.

Types

- Type I** - Fermented
- Type II** - Non-fermented
- Type III** - Low sodium (Lite)

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).

5. SALIENT CHARACTERISTICS.

5.1 Finished product. The soy sauce shall be formulated, prepared, and bottled in accordance with good manufacturing practice to result in good quality preserved products.

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 vinegar and/or organic acids (such as acetic or citric acid), and preservatives.

5.1.3 Type III - Low sodium (Lite). The low sodium soy sauce shall be either fermented or 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 Part 101.56.

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

5.1.5 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. Type III soy sauce shall be a reddish-brown or dark brown liquid. All types shall be practically free of sediment.

5.2 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 Low Sodium (Lite)
Titratable acidity (as acetic)	.90 - 1.35	0.8 - 1.6	1.2 - 2.0
Total salt (as NaCl)	13.0 - 16.0	13.0 - 21.0	6.5 - 15.0
pH (value)	4.5 - 5.2	4.5 - 6.0	4.2 - 5.0
Protein (Nx6.25) (NLT) <u>1/</u>	7.5	4.5	3.9
Invert sugar (NMT) <u>2/</u>	---	10.0	---
Alcohol	1.0 - 3.5	---	---
Total solids (NLT) <u>1/</u> (Vacuum oven)	28.0	32.0	23.0
Sodium (NMT) <u>2/</u>	---	---	140 mg per serving
Water activity (a_w) (NMT) (value) <u>2/</u>	---	---	0.85 <u>3/</u>

1/ NLT = Not Less Than

2/ NMT = Not More Than

3/ 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. When USDA verification of analytical requirements is specified in the solicitation, contract, or purchase order, the following procedures will be followed.

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6.2.1 Sampling procedures. USDA inspection service will select the number of product containers based on USDA inspection service sampling procedures and plans.

6.2.2 Composite sample. Analytical testing shall be performed on a composite sample. The composite sample shall be 454 grams (1 pound) and prepared from subsamples drawn from randomly selected containers. The number of subsamples used to create the composite shall be based on USDA procedures.

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:

<u>Test</u>	<u>Method</u>
Titrateable acidity (as acetic)	942.15
Total salt	971.27
pH	981.12
Protein	988.05 or 992.15
Invert sugar	923.09 or 906.03
Alcohol	950.04 or 942.06
Total solids	925.23A
Sodium	966.16
a _w	978.18

6.4 Test results. The test results for the salt, protein, invert sugar, alcohol, and total solids shall be reported to the nearest 0.1 percent. Titrateable 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 results for sodium shall be reported to the nearest milligram per serving. The test results for a_w shall be reported to the nearest 0.01 value. The test results 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 and regulations promulgated thereunder.

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

9.1 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.

9.1.1 Plant systems audit. A plant systems audit (PSA) shall be conducted by USDA, Agricultural Marketing Service (AMS), or another 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 Title 21 Code of Federal Regulations Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food), and have in place an internal quality assurance program. The AMS PSA determines the manufacturer's ability to produce under this CID, if the products of interest are identified at the time of the PSA.)*

9.1.2 Plant survey. A plant survey shall be conducted by USDA, AMS, or another survey 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 plant survey audit verifies that, at the time of the survey, the manufacturer produces products in a clean, sanitary environment in accordance with Title 21 Code of Federal Regulations Part 110 - Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food.)*

9.2 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.

9.3 USDA certification. When required in the solicitation, contract, or purchase order that product quality and acceptability or both be determined, the Processed Products Branch (PPB), Fruit and Vegetable Programs (FVP), AMS, USDA, shall be the certifying program. PPB inspectors shall certify the quality and acceptability of the soy sauce in accordance with PPB procedures which include selecting random samples of the packaged soy sauce, evaluating the samples for conformance with the salient characteristics of this CID and other contractual requirements, and documenting the findings on official PPB score sheets and/or certificates. In addition, when required in the solicitation, contract, or purchase order, PPB 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 9.3 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. 6.2). When USDA analytical testing is specified, PPB 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 contact. For USDA certification, contact the **Branch Chief, PPB, FVP, AMS, USDA, STOP 0247, 1400 Independence Avenue, SW, Washington, DC 20250-0247, telephone (202) 720-4693, Fax (202) 690-1527, or via E-mail: james.rodeheaver@usda.gov.**

12.2 Analytical testing and technical information. For USDA technical information on analytical testing, contact the **Branch Chief, Technical Service Branch, S&TP, AMS, USDA, STOP 0272, 1400 Independence Avenue, SW, Washington, DC 20250-0272, telephone (202) 690-0621, or via E-mail: anita.okrend@usda.gov.**

12.3 Sources of documents.

12.3.1 Sources of information for nongovernmental documents 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, telephone (301) 924-7077. Internet address: <http://www.aoac.org>.**

12.3.2 Sources of information for governmental documents are as follows:

Applicable provisions of the Federal Food, Drug, and Cosmetic Act are contained in 21 CFR Parts 1 to 199. This document may be purchased from: **Superintendent of Documents, ATTN: New Orders, P.O. Box 371954, Pittsburgh, PA 15250-7954. Credit card**

(MasterCard or Visa) purchases may be made by calling the Superintendent of Documents (202) 512-1803 or on the Internet at: <http://www.nara.gov/fedreg>.

Copies of this CID and the United States Standards for Condition of Food Containers are available from: **Head, Food Quality Assurance Staff, FVP, AMS, USDA, STOP 0243, 1400 Independence Ave., SW, Washington, DC 20250-0243, telephone (202) 720-9939, Fax (202) 690-0102, via E-mail: FQAStaff@usda.gov or on the Internet at: <http://www.ams.usda.gov/fv/fvqual.htm>.**

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: **Commander, Defense Supply Center Philadelphia, ATTN: DSCP-HSL, 700 Robbins Avenue, Philadelphia, PA 19111-5092 or Fax (215) 737-2963, or via E-mail: sagallagher@dscp.dla.mil.**

Military activities should submit requests for copies of this CID to: **Standardization Documents Order Desk, Document Automation and Production Service, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.**

MILITARY INTERESTS:

CIVIL AGENCY COORDINATING ACTIVITIES:

Custodians

Army - GL
Navy - SA
Air Force - 35

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

Review Activities

Army - MD, QM
Navy - MC

PREPARING ACTIVITY:

DLA - SS

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