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United States Standards for Grades of Concentrated Tomato Juice

Effective June 12, 2026

This issue of the United States Standards for Grades of Concentrated Tomato Juice (91 FR 26985) supersedes the previous issue which had been in effect since February 25, 1970.

Voluntary U.S. grade standards are issued under the authority of the Agricultural Marketing Act of 1946, which provides for the development of official U.S. grades to designate different levels of quality. These grade standards are available for use by producers, suppliers, buyers, and consumers. As in the case of other standards for grades of fresh and processed fruits, vegetables, and specialty crops these standards are designed to facilitate orderly marketing by providing a convenient basis for buying and selling, for establishing quality control programs, and for determining loan values.

The U.S. grade standards and inspection instructions for all fresh and processed fruits, vegetables, and specialty crops are available on the internet and upon request at the address below. These documents provide detailed interpretations of the grade standards and provide step-by-step procedures for grading the product.

Grade standards are issued by the U.S. Department of Agriculture (USDA) after careful consideration of all data and views submitted during rulemaking. The Department welcomes suggestions for improving the standards in future revisions. Comments may be submitted to, and copies of standards and inspection instructions obtained from:

Director, Specialty Crops Inspection Division
Specialty Crops Program,
USDA, Agricultural Marketing Service
1400 Independence Avenue, SW, STOP 0240
Washington, D.C. 20250

Authority: 7 U.S.C. 1621-1627.

Note: Compliance with the provisions of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act, or with applicable State laws and regulations.

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Product Description and Grades
§52.5201 Product description.

Concentrated tomato juice means the product prepared from clean, sound, whole tomatoes of the red or reddish varieties as such product is defined in the Standard of Identity for Tomato Concentrate (21 CFR §156.145) issued pursuant to the Federal Food, Drug, and Cosmetic Act. The product contains not less than 20 percent but less than 24 percent of tomato soluble solids (TSS). When packed in hermetically sealed containers, it is sufficiently processed by heat, before or after dealing, to ensure the preservation of the product.

§52.5202 Grades of concentrated tomato juice.

- (a) **U.S. Grade A** is the quality of concentrated tomato juice that, when properly reconstituted, has a good color; has a good consistency; is practically free from defects; has a good flavor; and scores not less than 85 points when scored in accordance with the scoring system outlined in this subpart: *Provided*, That the reconstituted tomato juice may have only a fairly good color, scoring not less than 25 points and a fairly good consistency, if the total score is not less than 85 points.
- (b) **U.S. Grade C** is the quality of concentrated tomato juice that, when properly reconstituted, has a fairly good color; has a fairly good consistency; is fairly free from defects; has a fairly good flavor; and scores not less than 70 points when scored in accordance with the scoring system outlined in this subpart.
- (c) **Substandard (SStd)** is the quality of concentrated tomato juice that fails to meet the requirements of U.S. Grade C.

Fill of Container

§52.5203 Recommended fill of container.

Fill of container is not incorporated in the grades of the finished product, since fill of container, as such, is not a factor of quality for the purposes of these grades. It is recommended that each container of concentrated tomato juice be filled as full as practicable without impairment of quality, and that the product occupy not less than 90 percent of the capacity of the container.

Factors of Quality

§52.5204 Ascertaining the grade of a sample unit.

In addition to considering other requirements outlined in the standards, the quality factors of color, consistency, defects, and flavor are evaluated by applying appropriate criteria to the reconstituted tomato juice prepared by thoroughly mixing the concentrated tomato juice with three volumes of water. The relative importance of each factor is

expressed numerically on the scale of 100. The maximum number of points that may be given for each such factor is:

Factors:	Points
Color	30
Consistency	15
Defects	15
Flavor	40
Total Score	100

§52.5205 Color.

- (a) **General.** The amount of red in the reconstituted tomato juice is determined by comparing the color of the product with the USDA Color Standards for Tomato Products. The availability and procedure for using the color standards may be obtained by contacting the USDA.
- (1) Such comparison is to be made under a diffused light source of approximately 250 foot-candle intensity and having a spectral quality approximating that of daylight under a moderately overcast sky, and a color temperature of 7500 degrees Kelvin ± 200 degrees. With the light source directly over the disc and product, observation is made at an angle of 45 degrees from a distance of about 24 inches from the product.
- (2) Any method or device approved by the USDA (including electric color meters) which gives equivalent results may be used.
- (b) **“A” classification.** Concentrated tomato juice that, when reconstituted properly, has a good color may be given a score of 26 to 30 points.

Good color means a color that is typical of canned tomato juice, made from well ripened red tomatoes, which has been properly prepared and properly processed. Such color contains as much red as, or more red than the USDA Color Standard A2 for Tomato Products.

- (c) **“C” classification.** If the reconstituted tomato juice has a fairly good color a score of 23 to 25 points may be given. Concentrated tomato juice that scores 23 or 24 points for color must not be graded above U.S. Grade C, regardless of the total score for the product (this is a partial limiting rule).

Fairly good color means a color that is typical of canned tomato juice. To score 25 points for color the reconstituted juice must contain as much red as, or more

red than the USDA Color Standard C2 for Tomato Products.

- (d) **Substandard (SStd) classification.** Concentrated tomato juice that fails to meet the requirements of paragraph (c) of this section may be given a score of 0 to 22 points and must not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§52.5206 Consistency.

This factor has reference to the viscosity of the reconstituted juice. The tendency of the insoluble solids to separate, leaving practically clear liquid at the top is also to be noted in this connection.

- (a) **“A” classification.** Concentrated tomato juice that, when properly reconstituted, has a good consistency may be given a score of 13 to 15 points.

Good consistency means that the reconstituted tomato juice flows readily; has a normal amount of insoluble tomato solids in suspension; and that there is little tendency for such solids to settle out.

- (b) **“C” classification.** If the concentrated tomato juice has a fairly good consistency a score of 10 to 12 points may be given.

Fairly good consistency means that the reconstituted tomato juice flows readily; has a normal amount of insoluble tomato solids in suspension; and that there is not a marked tendency for such solids to settle out.

- (c) **Substandard (SStd) classification.** Concentrated tomato juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 9 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§52.5207 Defects.

The factor of defects refers to the degree of freedom from defects, such as dark specks or scale-like particles, seeds, particles of seed, tomato peel, core material, or other similar substances.

- (a) **“A” classification.** Concentrated tomato juice that is practically free from defects may be given a score of 13 to 15 points.

Practically free from defects means that any defects present in the reconstituted juice do not more than slightly affect the appearance or drinking quality of the juice.

- (b) **“C” classification.** If the concentrated tomato juice is fairly free from defects a score of 10 to 12 points may be given. Concentrated tomato juice that falls into this classification must not be graded above U.S. Grade C, regardless of the total score for the product (this is a limiting rule).

Fairly free from defects means that any defects present in the reconstituted juice may be noticeable, but are not so large, so numerous or of such contrasting color as to seriously affect the appearance or drinking quality of the juice.

- (c) **Substandard (SStd) classification.** Concentrated tomato juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 9 points and shall not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

§52.5208 Flavor.

- (a) **“A” classification.** Concentrated tomato juice that possesses a good flavor may be given a score of 33 to 40 points.

Good flavor means a distinct canned tomato juice flavor and odor characteristic of good quality tomatoes. To score in this classification the flavor of the reconstituted juice must not be adversely affected by stems, leaves, crushed seeds, cores, immature tomatoes, or the effects of improper trimming or processing.

- (b) **“C” classification.** If the reconstituted tomato juice possesses only a fairly good flavor a score of 27 to 32 points may be given. Concentrated tomato juice that falls into this classification must not be graded above U.S. Grade C, regardless of the total score for the product (this is a limiting rule).

Fairly good flavor means a characteristic canned tomato juice flavor. To score in this classification the flavor of the reconstituted juice may be affected adversely, but not seriously so, by stems, leaves, crushed, seeds, cores, immature tomatoes, or the effects of improper trimming or processing.

- (c) **Substandard (SStd) classification.** Concentrated tomato juice that fails to meet the requirements of paragraph (b) of this section may be given a score of 0 to 26 points and must not be graded above Substandard, regardless of the total score for the product (this is a limiting rule).

Lot Inspection and Certification

§52.5209 Ascertaining the grade of a lot.

The grade of a lot of concentrated tomato juice covered by these standards is determined by the procedures set forth in the Regulations Governing Inspection and Certification of Processed Fruits and Vegetables, Processed Products Thereof, and

Certain Other Processed Food Products (7 CFR §52.1 through §52.83).

Score Sheet

§52.5210 Score sheet for concentrated tomato juice.

Type of container			
Container size			
Label			
Code			
Volume			
Vacuum (inches)			
Tomato soluble solids (percent)			
Factors		Grade	Score Points
Color	30	A	26-30
		C	23-25 ¹
		SStd	0-22 ²
Consistency	15	A	13-15
		C	10-12
		SStd	0-9 ²
Defects	15	A	13-15
		C	10-12 ²
		SStd	0-9 ²
Flavor	40	A	33-40
		C	27-32 ²
		SStd	0-26 ²
Total Score	100		
U.S. Grade			

¹Indicates partial limiting rule.

²Indicates limiting rule.