

Commercial Standard

CS72-54

SUPERSEDES CS72-38

Household Insecticide (Liquid Space Spray Type for Flying Insects)

A RECORDED VOLUNTARY STANDARD OF THE TRADE

COMMODITY STANDARDS

Simplified Practice Recommendations and Commercial Standards are developed by manufacturers, distributors, and users in cooperation with the Commodity Standards Division of the Office of Technical Services, and with the National Bureau of Standards.

The purpose of Simplified Practice Recommendations is to eliminate avoidable waste through the establishment of standards of practice for stock sizes and varieties of specific commodities that currently are in general production and demand. The purpose of Commercial Standards is to establish standard methods of test, rating, certification, and labeling of commodities, and to provide uniform bases for fair competition.

The adoption and use of a Simplified Practice Recommendation or a Commercial Standard is voluntary. However, when reference to a Commercial Standard is made in contracts, labels, invoices, or advertising literature, the provisions of the standard are enforceable through usual legal channels as a part of the sales contract.

A Simplified Practice Recommendation or a Commercial Standard originates with the proponent industry. The sponsors may be manufacturers, distributors, or users of the specific product. One of these three elements of industry submits to the Commodity Standards Division the necessary data to be used as the basis for developing a standard of practice. The Division, by means of assembled conferences or letter referenda, or both, assists the sponsor group in arriving at a tentative standard of practice and thereafter refers it to the other elements of the same industry for approval or for constructive criticism that will be helpful in making any necessary adjustments. The regular procedure of the Division assures continuous servicing of each effective Simplified Practice Recommendation and Commercial Standard, through review and revision, whenever, in the opinion of the industry, changing conditions warrant such action.

UNITED STATES DEPARTMENT OF COMMERCE

Sinclair Weeks, Secretary



U. S. DEPARTMENT OF COMMERCE
SINCLAIR WEEKS, Secretary

Prepared by
OFFICE OF TECHNICAL SERVICES
Commodity Standards Division

In cooperation with
NATIONAL BUREAU OF STANDARDS

Household Insecticide (Liquid Space Spray Type for Flying Insects)

(Second Edition)

[Effective September 25, 1954]

1. PURPOSE

1.1 The purpose of this Commercial Standard is to provide a specification for quality, as a basis for understanding and voluntary guaranties between producers, distributors, and users in the purchase of this commodity, and as a foundation for confidence on the part of purchasers that the efficacy of the material is that which may be expected of liquid space spray type household insecticide manufactured in conformity with a nationally recognized specification.

2. SCOPE

2.1 This standard covers methods of test, biological, physical, and chemical properties, and certification of quality of liquid space spray type household insecticide. Such sprays contain one or more insecticidal ingredients dissolved in flyspray base oils suitable for household and industrial use.

3. GENERAL REQUIREMENTS

3.1 The killing power of the liquid space spray type household insecticide for flying insects shall be determined by the Official Peet-Grady Method in conjunction with the Official Test Insecticide (OTI) of the Chemical Specialties Manufacturers Association, Inc.

3.1.1 The percentage knockdown of the insecticide to be officially rated shall be equal to that of the Official Test Insecticide, with a tolerance of minus 2 percentage points.

3.1.2 The killing power of the insecticide shall be designated by letter and shall be in accordance with the following grading system:

Grade	Difference between 24-hour kill of insecticide and that of the OTI
AA	+16 or greater
A	+6 to +15
B	-5 to +5

3.2 This insecticide shall be noninjurious to man and warm-blooded household animals when used as directed.

3.3 When sprayed as directed, it shall not stain fabrics, wallpaper, and general household furnishings that are not stained by dry-cleaning fluids.

3.4 When used in the customary manner, it shall not contaminate closed packages of food materials commonly found in homes.

3.5 It shall not corrode metals.

3.6 It shall have no objectionable odor, and no particular odor shall be specified.

3.7 It shall have a flash point not less than 125° F when tested in the Tagliabue closed cup.

4. METHODS OF TEST

4.1 *Peet-Grady method.*—The Peet-Grady method of determining efficiency of contact liquid insecticides is subject to variations that necessitate close attention to details of equipment and procedure to obtain comparable results. Refinements that result in higher precision are being developed by constant research and are incorporated in the official method from time to time. A copy of the official method setting forth the necessary details is available from the Chemical Specialties Manufacturers Association, Inc., 110 East 42d Street, New York 17, N. Y., or from the distributor of the Official Test Insecticide. The following résumé is intended for general information of those not actively engaged in conducting the test.

4.1.1 *Official Test Insecticide.*—To equalize variables not otherwise controlled, such as varying resistance of insects, grading is based on the killing power of the Official Test Insecticide prepared by the Chemical Specialties Manufacturers Association, Inc., and made available to all laboratories.

4.1.2 *Test insect.*—House flies (*Musca domestica*, L.) are used. Healthy individuals are reared under prescribed conditions and used when not less than 3 nor more than 5 days old.

4.1.3 *Peet-Grady test chamber.*—The test chamber is a 6-foot (inside) cube, constructed of wood or metal and lined so the inner surface is smooth, relatively nonporous, and free of cracks, projections, ledges, etc. One wall is provided with a tight-fitting door large enough for a man to enter conveniently, with the interior side flush with the wall when closed. The other walls and ceiling are provided with glass windows for observation and lighting; various openings are provided for admitting insects and the insecticide, and for ventilation after test.

4.1.4 *Test procedure.*—Approximately 100 or 500 flies are transferred to the thoroughly cleaned Peet-Grady chamber. All ports and entrances are closed and 12 ml of the insecticide are introduced by means of a special type atomizer. The chamber is kept closed for 10 minutes beginning from the time the spray is started. At the end of this time, the ventilating ports are opened and the exhaust fan turned on. The number of flies clinging to the ceiling and walls, together with any still flying, are counted and considered unaffected by the insecticide. The flies which have fallen to the floor are considered "knockdown" and are carefully transferred to observation cages. At the end of 24 hours, the insects are counted and the number dead, plus those that have revived, are added to the number

unaffected, to obtain the total number of flies used. The percentage knockdown equals the number of caged flies times 100, divided by the total number of flies used. The number of flies dead in the observation cage after 24 hours multiplied by 100 and divided by the total number used gives the "percentage kill." To be counted as dead, an insect must show no signs of life upon being disturbed.

4.1.5 *Evaluation of tests.*—In making an official evaluation at least two cultures of flies must be used and the kill by the Official Test Insecticide (OTI) has to fall between 30 percent and 55 percent in all tests. Evaluation by the *large-group procedure* (approximately 500 flies in each cage) is based on the average difference in killing power of the OTI and the unknown as determined by a minimum of 4 tests, and the replicate tests of the OTI with any single culture are required to agree within 10 percentage points. For evaluation by the *small-group procedure* (approximately 100 flies in each cage), at least 10 tests on the OTI and on each of the unknowns, run in parallel, are required; and the standard error of the mean difference between the average OTI kill and the average kill of a particular unknown must be less than 3 percentage units for the test of the unknown to be considered valid.

4.1.6 *Grading.*—The insecticide tested is graded by comparing the percentage kill with that obtained on flies of the same culture by the Official Test Insecticide. (See paragraphs 3.1.1 and 3.1.2.)

4.2 *Corrosion test.*—ASTM¹ Method D130-50T.

4.3 *Flash test.*—ASTM¹ Method D56-52.

5. IDENTIFICATION

5.1 In order that purchasers may be assured that the household insecticide purchased actually complies with all requirements of this Commercial Standard, it is recommended that manufacturers include the following statement in conjunction with their name and address on labels, invoices, sales literature, etc.:²

This household insecticide (liquid space spray type for flying insects) complies with all requirements for Grade ---- of Commercial Standard CS72-54, as developed by the trade under the procedure of the Commodity Standards Division, and issued by the U. S. Department of Commerce.

5.2 The following abbreviated statements are suggested when available space on labels is insufficient for the full statement:

- (a) Meets (or exceeds) Commercial Standard CS72-54, Grade ---- when tested against houseflies (or household flying insects).
- (b) Grade ---- Fly Spray.

6. EFFECTIVE DATE

6.1 Having been passed through the regular procedure of the Commodity Standards Division, and approved by the acceptors hereinafter listed, this Commercial Standard was issued by the United States Department of Commerce, effective from September 25, 1954.

EDWIN W. ELY,
Chief, Commodity Standards Division.

¹ American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.

² This labeling is in addition to, and not in lieu of, that required under the Federal Insecticide, Fungicide and Rodenticide Act. Before shipment in interstate commerce, such products must be registered with the Pesticide Regulation Section, Plant Pest Control Branch, Agricultural Research Service, U. S. Department of Agriculture, Washington 25, D. C.

HISTORY OF PROJECT

First edition.—On September 20, 1937, the National Association of Insecticide & Disinfectant Manufacturers, Inc. (now Chemical Specialties Manufacturers Association, Inc.) requested the establishment of a Commercial Standard for household insecticide (liquid spray type), and submitted as a basis for such a standard a specification adopted officially by the association and followed by a large proportion of the association's membership.

The Division of Trade Standards (now Commodity Standards Division) of the United States Department of Commerce referred the specification to other interested organizations, including the Food and Drug Administration, and after some minor adjustments it was circulated as a recommended Commercial Standard on March 23, 1938, for written acceptance by producers, distributors, and users. Following satisfactory acceptance, and in the absence of active opposition, the standard was made effective from June 10, 1938.

Second edition.—On March 5, 1954, a draft of a proposed revision of Household Insecticide (Liquid Spray Type), Commercial Standard CS72-38, submitted by the Chemical Specialties Manufacturers Association, Inc., was referred to the standing committee.

Upon recommendation of the standing committee the proposed revision, under the new title, Household Insecticide (Liquid Space Spray Type for Flying Insects), was circulated to producers, distributors, users, and testing laboratories, on May 21, 1954, for written acceptance. On August 25, 1954, acceptances having been received representing a satisfactory majority, the establishment of the revision was announced, effective from September 25, 1954.

Project Manager: F. W. Reynolds, Commodity Standards Division, Office of Technical Services.

Technical Adviser: Dr. Wm. W. Walton, Chemistry Division, National Bureau of Standards.

STANDING COMMITTEE

The following individuals comprise the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Commodity Standards Division, Office of Technical Services, United States Department of Commerce, which acts as secretary for the committee.

DR. G. W. FIERO (chairman), Esso Standard Oil Co., 15 West 51st St., New York, N. Y.

A. C. MILLER, Gulf Research & Development Corp., P. O. Drawer 2036, Pittsburgh 30, Pa.

H. W. MOBURG, Rex Research Corp., 600 Montrose Ave., Toledo, Ohio.

O. A. SWARINGEN, Cabarrus Cash Grocery Co., Box 866, Concord, N. C. (representing National Association of Retail Grocers).

RUSSELL R. MUELLER, National Retail Hardware Association, 964 North Pennsylvania St., Indianapolis, Ind.

GEORGE H. FRATES, National Association of Retail Druggists, 1163 National Press Bldg., Washington, D. C.

DR. RALPH E. HEAL, National Pest Control Association, 30 Church St., New York, N. Y.

DR. W. G. REED, Pesticide Regulation Section, Plant Pest Control Branch, Agricultural Research Service, U. S. Department of Agriculture, Washington 25, D. C.

ACCEPTANCE OF COMMERCIAL STANDARD

If acceptance has not previously been filed, this sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this Commercial Standard.

Date -----

Commodity Standards Division,
Office of Technical Services,
U. S. Department of Commerce,
Washington 25, D. C.

Gentlemen:

We believe that this Commercial Standard constitutes a useful standard of practice, and we individually plan to utilize it as far as practicable in the

production ¹ distribution ¹ purchase ¹ testing ¹

of household insecticide (liquid space spray type for flying insects). We reserve the right to depart from it as we deem advisable.

We understand, of course, that only those products which actually comply with the standard in all respects can be identified or labeled as conforming thereto.

Signature of authorized officer -----
(In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer -----

Organization -----
(Fill in exactly as it should be listed)

Street address -----

City, zone, and State -----

¹ Underscore the one that applies. Please see that separate acceptances are filed for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade associations, trade papers, etc., desiring to record their general support, the words "General support" should be added after the signature.

(Cut on this line)

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial Standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of Commercial Standards is to establish, for specific commodities, nationally recognized grades or consumer criteria, and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the standard, where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of Commercial Standards on a Nation-wide basis is fourfold: first, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or of the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

ACCEPTORS

The organizations listed below have individually accepted this standard for use as far as practicable in the production, distribution, testing, purchase, or use of household insecticide (liquid space spray type for flying insects). In accepting this standard they reserved the right to depart from it as they individually deem advisable. It is expected that products which actually comply with the requirements of this standard in all respects will be regularly identified or labeled as conforming thereto, and that purchasers will require such specific evidence of conformity.

ASSOCIATIONS

(General Support)

American Hospital Association, Chicago, Ill.
 American Hotel Association, New York, N. Y.
 Associated Industries, Ashton, Md.
 Chemical Specialties Manufacturers Association, Inc., New York, N. Y.
 Mail Order Association of America, Washington, D. C.
 National Council of Women of the U. S., Inc., New York, N. Y.
 National Pest Control Association, Inc., New York, N. Y.

FIRMS AND OTHER INTERESTS

Acme Sanitary Supply Co., Denver, Colo.
 Aero-Sanitation Co., St. Louis, Mo.
 Alabama School Supply Co., Montgomery, Ala.
 Allott Hardware Co., Alliance, Ohio
 American Disinfectant Co., Washington, D. C.
 Baird & McGuire, Inc., Holbrook, Mass.
 Banner Manufacturing Co., Denver, Colo.
 Barr, G., & Co., Chicago, Ill.
 Beebe Ness Co., Division of Geo. H. Lee Co., Omaha, Nebr.
 Blue Ribbon Sanitary Products Co., St. Louis, Mo.
 Boyle-Midway, Inc., New York, N. Y.
 Bragdon, M. F., Paint Co., Portland, Maine
 Brigham, C. T., Co., Pittsfield, Mass.
 Brown, I. Edward, Inc., New York, N. Y.
 Cabell Chemical Co., Huntington, W. Va.
 California Spray-Chemical Corp., Richmond, Calif.
 Carbide & Carbon Chemicals Co., Division of Union Carbide & Carbon Corp., New York, N. Y.
 Cenol Co., Inc., Chicago, Ill.
 Claire Manufacturing Co., Chicago, Ill.
 Colborn School Supply Co., Grand Forks, N. Dak.
 Continental Chemical Co., Cleveland, Ohio
 Continental Exterminators, Inc., St. Joseph, Mo.
 Continental Pest Control, Inc., Springfield, Mo.
 Coopers Creek Chemical Corp., West Conshohocken, Pa.
 Dietrich Industries, Inc., Greenville, Pa.
 Dixie Chemical Co., New Orleans, La.
 Dixie Chemical Products Co., Ltd., Birmingham, Ala.
 Esso Standard Oil Co., New York, N. Y.
 Ewing, B. G., Paper Co., Spokane, Wash.
 Franklin Products Co., Tampa, Fla.
 Fuld Bros., Inc., Baltimore, Md.
 Fuld Bros., Inc., Los Angeles, Calif.
 Furst-McNess Co., Freeport, Ill.
 Gateway Chemical Co., Inc., Kansas City, Mo.
 Geigy Agricultural Chemicals, New York, N. Y.
 Goodrich, B. F., Chemical Co., Cleveland, Ohio
 Gordon Chemical Co., Inc., Kansas City, Mo.
 Government Chemical Products Corp., Cleveland, Ohio
 Greenbaum, C. D., Co., Inc., New York, N. Y.
 Griffith Laboratories, Inc., Chicago, Ill.
 Gulf Oil Corp., Pittsburgh, Pa.
 Gulf Refining Co., Pittsburgh, Pa.
 Gulf Research & Development Co., Pittsburgh, Pa.
 H. P. Chemical Products Co., Indianapolis, Ind.
 Halpern, Julius, Philadelphia, Pa.
 Harrison Oil Co., Milwaukee, Wis.
 Hayner, Norman C., Corp., Rochester, N. Y.
 Hemisphere International Corp., New Orleans, La.
 Hercules Powder Co., Inc., Wilmington, Del.
 Holcomb, J. L., Manufacturing Co., Indianapolis, Ind.

Hospital Bureau of Standards & Supplies, Inc., New York, N. Y.
 Huntington Laboratories, Inc., Huntington, Ind.
 Industrial Chemical Laboratories, Inc., Omaha, Nebr.
 Janitorial Supply Co., Wallington, N. J.
 Johnson, Geo. T., Co., Medford, Mass.
 Kemiko Manufacturing Co., Irvington, N. J.
 Lehrman, A. J., & Sons, Harrisburg, Pa.
 Lien Chemical Co., Franklin Park, Ill.
 Lindavap, Inc., Ann Arbor, Mich.
 Los Angeles, City of, Department of Supplies, Los Angeles, Calif.
 Louisiana Paper Co., Ltd., Shreveport, La.
 Macy, R. H., & Co., Inc., New York, N. Y.
 Master Supply & Equipment Corp., New York, N. Y.
 Mayer Myers Paper Co., Memphis, Tenn.
 McCormick & Co., Inc., Baltimore, Md.
 Miami Products & Chemical Co., Dayton, Ohio
 Midland Laboratories, Dubuque, Iowa
 Miller Chemical Co., Inc., Omaha, Nebr.
 National Disinfectant Co., Dallas, Tex.
 Navy Brand Manufacturing Co., St. Louis, Mo.
 New England Spectrochemical Laboratories, Ipswich, Mass.
 Newbro Drug Co., Butte, Mont.
 Nowlin Co., Fort Worth, Tex.
 O-Dor-Cide Co., Newark, N. J.
 Oliver Chemical Co., Cincinnati, Ohio
 Paterson General Hospital, Paterson, N. J.
 Peniek, S. B., & Co., New York, N. Y.
 Penola Oil Co., New York, N. Y.
 Porterfield's Pet Supply, South Windsor, Conn.
 Powell, John, & Co., Division of Mathieson Chemical Corp., New York, N. Y.
 Pro-Tex-All Co., Inc., Evansville, Ind.
 Puritan Chemical Co., Atlanta, Ga.
 Ralston Purina Co., St. Louis, Mo.
 Rawleigh, W. T., Co., Freeport, Ill.
 Read, Chas. L., & Co., Inc., Jersey City, N. J.
 Rex Research Corp., Toledo, Ohio
 Robbins, Geo. B., Disinfectant Co., Cambridge, Mass.
 Rohm & Haas Co., Philadelphia, Pa.
 Sayers & Co., Philadelphia, Pa.
 Seacoast Laboratories, Inc., New York, N. Y.
 Sears, Roebuck & Co., Chicago, Ill.
 Solomons Co., Savannah, Ga.
 Southern Products Co., Inc., Chattanooga, Tenn.
 Standard Oil Co. (Indiana), Chicago, Ill.
 Standard Oil Co. (Ohio), Cleveland, Ohio
 Sterling Office & School Supply Co., Johnstown, Pa.
 Styron-Beggs Co., Newark, Ohio
 Superior Chemical Co., Houston, Tex.
 System Products Co., Chicago, Ill.
 Thompson-Hayward Chemical Co., Kansas City, Mo.
 Uncl' George's, Manchester, Conn.
 Victory Chemical Co., Philadelphia, Pa.
 West Disinfecting Co., Long Island City, N. Y.
 (General support.)
 White, Robert C., Co., Philadelphia, Pa.
 Whitnire Research Laboratories, Inc., St. Louis, Mo.
 Wholesale Janitors' Supply Co., Chicago, Ill.
 Wisconsin, State of, Bureau of Purchases, Madison, Wis.
 World Spray Co. Inc., Los Angeles, Calif.
 Zuparn-Hughes, Druggists, Stouxs City, Iowa

U. S. GOVERNMENT

Department of the Army, Standards Branch, Procurement Division, Washington, D. C.

COMMERCIAL STANDARDS

- | CS No. | CS No. |
|---|---|
| 0. Commercial standards and their value to business. | 66. Marking of articles made wholly or in part of platinum. |
| 1. Clinical thermometers. | 67. Marking articles made of karat gold. |
| 2. Mopsticks. | 68. Liquid hypochlorite disinfectant, deodorant, and germicide. |
| 3. Stoddard solvent. | 69. Pine oil disinfectant. |
| 4. Staple porcelain (all-clay) plumbing fixtures. | 70. Phenolic disinfectant (emulsifying type) (published with CS 71) |
| 5. Pipe nipples; brass, copper, steel, and wrought-iron. | 71. Phenolic disinfectant (soluble type) (published with CS70). |
| 6. Wrought-iron pipe nipples. Superseded by CS5. | 72. Household insecticide (liquid space spray type for flying insects). |
| 7. Standard weight malleable iron or steel screwed unions. | 73. Old growth Douglas fir, Sitka spruce, and western hemlock standard stock doors. |
| 8. Gage blanks. | 74. Solid hardwood wall paneling. |
| 9. Builders' template hardware. | 75. Automatic mechanical draft oil burners designed for domestic installations. |
| 10. Brass pipe nipples. Superseded by CS5. | 76. Hardwood interior trim and molding. |
| 11. Moisture regains of cotton yarns. | 77. Enameled cast-iron plumbing fixtures. |
| 12. Fuel oils. | 78. Ground-and-polished lenses for sun glasses (published with CS79). |
| 13. Dress patterns. | 79. Blown, drawn, and dropped lenses for sun glasses (published with CS78). |
| 14. Boys' sport and dress shirt (woven fabrics) size measurements. | 80. Electric direction signal systems other than semaphore type for commercial and other vehicles subject to special motor vehicle laws (after market). |
| 15. Men's pajama sizes (made from woven fabrics). | 81. Adverse-weather lamps for vehicles (after market). |
| 16. Wallpaper. | 82. Inner-controlled spotlamps for vehicles (after market). |
| 17. (Withdrawn.) | 83. Clearance, marker, and identification lamps for vehicles (after market). |
| 18. Hickory golf shafts. | 84. Electric tail lamps for vehicles (after market). |
| 19. Foundry patterns of wood. | 85. Electric license-plate lamps for vehicles (after market). |
| 20. Vitreous china plumbing fixtures. | 86. Electric stop lamps for vehicles (after market). |
| 21. Interchangeable ground-glass joints, stopcocks, and stoppers. | 87. Red electric warning lanterns. |
| 22. Builders' hardware (montemplate). | 88. Liquid burning flares. |
| 23. Feldspar. | 89. Hardwood stair treads and risers. |
| 24. Screw threads and tap-drill sizes. | 90. Power cranes and shovels. |
| 25. Special screw threads. Superseded by CS24. | 91. Factory-fitted Douglas fir entrance doors. |
| 26. Aromatic red cedar closet lining. | 92. Cedar, cypress, and redwood tank stock lumber. |
| 27. Mirrors. | 93. Portable electric drills (exclusive of high frequency). |
| 28. Cotton fabric tents, tarpaulins, and covers. | 94. Calking lead. |
| 29. Staple seats for water-closet bowls. | 95. Lead pipe. |
| 30. (Withdrawn.) | 96. Lead traps and bends. |
| 31. Wood shingles. | 97. Electric supplementary driving and passing lamps for vehicles (after market). |
| 32. Cotton cloth for rubber and pyroxylin coating. | 98. Artists' oil paints. |
| 33. Knit underwear (exclusive of rayon). | 99. Gas floor furnaces—gravity circulating type. |
| 34. Bag, case, and strap leather. | 100. Porcelain-enameled steel utensils. |
| 35. Hardwood plywood. | 101. Flue-connected oil-burning space heaters equipped with vaporizing pot-type burners. |
| 36. Fourdriner wire cloth. | 102. (Reserved for "Diesel and fuel-oil engines.") |
| 37. Steel bone plates and screws. | 103. Rayon jacquard velour (with or without other decorative yarn). |
| 38. Hospital rubber sheeting. | 104. Warm-air furnaces equipped with vaporizing-type oil burners. |
| 39. (Withdrawn.) | 105. Mineral wool insulation for low temperatures. |
| 40. Surgeons' rubber gloves | 106. Boys' pajama sizes (woven fabrics). |
| 41. Surgeons' latex gloves. | 107. (Withdrawn.) |
| 42. Structural fiber insulating board. | 108. Treading automobile and truck tires. |
| 43. Grading of sulphonated oils. | 109. Solid-fuel-burning forced-air furnaces. |
| 44. Apple wraps. | 110. Tire repairs—vulcanized (passenger, truck, and bus tires). |
| 45. Douglas fir plywood. | 111. Earthenware (vitreous-glazed) plumbing fixtures. |
| 46. Hosiery lengths and sizes. | 112. Homogeneous fiber wallboard. |
| 47. Marking of gold-filled and rolled-goldplate articles other than watchcases. | 113. Oil-burning floor furnaces equipped with vaporizing pot-type burners. |
| 48. Domestic burners for Pennsylvania anthracite (underfeed type). | 114. Hospital sheeting for mattress protection. |
| 49. Chip board, laminated chip board, and miscellaneous boards for bookbinding purposes. | 115. Porcelain-enameled tanks for domestic use. |
| 50. Binders board for bookbinding and other purposes. | 116. Bituminized-fiber drain and sewer pipe. |
| 51. Marking articles made of silver in combination with gold. | 117. Mineral wool insulation for heated industrial equipment. |
| 52. Mohair pile fabrics (100-percent mohair plain velvet, 100-percent mohair plain freize, and 50-percent mohair plain freize). | 118. Marking of jewelry and novelties of silver. |
| 53. Colors and finishes for cast stone. | (E) 119. ¹ Dial indicators (for linear measurements). |
| 54. Mattresses for hospitals. | 120. Standard stock ponderosa pine doors. |
| 55. Mattresses for institutions. | 121. Women's slip sizes (woven fabrics). |
| 56. Oak flooring. | 122. Western softwood plywood. |
| 57. Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except library bindings. | 123. Grading of diamond powder. |
| 58. Woven elastic fabrics for use in overalls (overall elastic webbing). | (E) 124. ¹ Master disks. |
| 59. Textiles—testing and reporting. | |
| 60. Hardwood dimension lumber. | |
| 61. Venetian blinds (grade A) custom-made. | |
| 62. Colors for kitchen accessories. | |
| 63. Colors for bathroom accessories. | |
| 64. Walnut veneers. | |
| 65. Methods of analysis and of reporting fiber composition of textile products. | |

¹ Where "(E)" precedes the CS number, it indicates an emergency Commercial Standard, drafted under war conditions.

CS No.

125. Prefabricated homes.
126. Tank-mounted air compressors.
127. Self-contained mechanically refrigerated drinking water coolers.
128. Men's sport shirt sizes—woven fabrics (other than those marked with regular neckband sizes).
129. Materials for safety wearing apparel.
130. Color materials for art education in schools.
131. Industrial mineral wool products, all types—testing and reporting.
132. Hardware cloth.
133. Woven wire netting.
134. Cast aluminum cooking utensils (metal composition).
135. Men's shirt sizes (exclusive of work shirts).
136. Blankets for hospitals (wool, and wool and cotton).
137. Size measurements for men's and boys' shorts (woven fabrics).
138. Insect wire screening.
139. Work gloves.
140. Testing and rating convectors.
141. Sine bars, blocks, plates, and fixtures.
142. Automotive lifts.
143. Standard strength and extra strength perforated clay pipe.
144. Formed metal porcelain enameled sanitary ware.
145. Testing and rating hand-fired hot-water supply boilers.
146. Gowns for hospital patients.
147. Colors and molded urea plastics.
148. Men's circular flat- and rib-knit rayon underwear.
149. Utility type house dress sizes.
150. Hot rolled rail steel bars (produced from tee-section rails).
151. Body measurements for the sizing of apparel for infants, babies, toddlers, and children (for the knit underwear industry).
152. Copper naphthenate wood-preservative (spray, brush, dip application).
153. Body measurements for the sizing of apparel for girls (for the knit underwear industry).
154. (Reserved for "Wire rope.")
155. Body measurements for the sizing of boys' apparel (knit underwear, shirts, trousers).
156. Colors for polystyrene plastics.
157. Ponderosa pine and sugar pine plywood.

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158. Model forms for girls' apparel.
159. Sun glass lenses made of ground and polished plate glass, thereafter thermally curved.
160. Wood-fiber blanket insulation (for building construction).
161. "Standard grade" hot-dipped galvanized ware (coated after fabrication).
162. Tufted bedspreads.
163. Standard stock ponderosa pine windows, sash, and screens.
164. (Reserved for "Concrete mixers.")
165. Zinc naphthenate wood-preservative (spray, brush, dip application).
166. Size measurements for men's work trousers.
167. Automotive and general service copper tube.
168. Polystyrene plastic wall tiles, and adhesives for their application.
169. Galvanized ware fabricated from *pregalvanized* steel sheets.
170. Cotton flour-bag (sack) towels.
171. Hardwood veneered doors.
172. Brass trim for water-closet bowls, tanks, and urinals (dimensional standards).
173. Heavy-duty alpha-cellulose-filled melamine tableware.
174. 140-F dry-cleaning solvent.
175. Circular-knitted gloves and mittens.
176. Prefinished wall panels.
177. Bituminous-coated metal septic tanks (single compartment, residential).
178. Testing and rating ventilating fans (axial and propeller types).
179. Installation of attic ventilation fans in residences.
180. Model forms for boys' apparel.
181. Water-resistant organic adhesives for installation of clay tile.
182. Latex foam mattresses for hospitals.
183. Boys' trouser size measurements.²
184. Steel fence posts—field and line type (produced from hot-rolled steel sections).
185. Wool felt.
186. Boys' sports outerwear size measurements.
187. Men's work shirt sizes.
188. Service-weight cast-iron soil pipe and fittings.
189. Women's circular flat-knit rayon underwear sizes (including nightgowns and pajamas).
190. Standard stock double-hung wood window units.²
191. Flammability of clothing textiles.
192. General purpose vinyl plastic film.

² Copies of CS183 and CS190 are obtainable only from the U. S. Department of Commerce.

NOTICE.—Copies of Commercial Standards may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. A price list may be obtained from the Commodity Standards Division, Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.