# U. S. DEPARTMENT OF COMMERCE

DANIEL C. ROPER, Secretary

## NATIONAL BUREAU OF STANDARDS

LYMAN J. BRIGGS, Director

Bureau of Standards SEP 30 1938

# COAL TAR DISINFECTANT

(EMULSIFYING TYPE)

COMMERCIAL STANDARD CS70-38

Effective Date, June 10, 1938



A RECORDED STANDARD OF THE INDUSTRY

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON: 1938

# PROMULGATION

of

# COMMERCIAL STANDARD CS70-38

for

# COAL-TAR DISINFECTANT

(EMULSIFYING TYPE)

On September 20, 1937, the National Association of Insecticide and Disinfectant Manufacturers, Inc., proposed the establishment of a Commercial Standard for Coal Tar Disinfectant (Emulsifying Type). Accordingly, after preliminary conferences with other interested organizations, including the Federal Food and Drug Administration, the proposal was submitted on March 23, 1938, to manufacturers, distributors, and users for the approval of all concerned. The industry has since accepted and approved for promulgation by the United States Department of Commerce, through the National Bureau of Standards, the standard as shown herein.

The standard became effective on June 10, 1938.

Promulgation recommended.

I. J. Fairchild, Chief, Division of Trade Standards.

Promulgated.

Lyman J. Briggs,
Director, National Bureau of Standards.

Promulgation approved.

Daniel C. Roper, Secretary of Commerce.

# COAL TAR DISINFECTANT (EMULSIFYING TYPE)

# COMMERCIAL STANDARD CS70-38

#### **PURPOSE**

1. The purpose of this commercial standard is to provide a minimum 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 emulsifying type coal tar disinfectant manufactured in conformity with a nationally recognized specification.

#### SCOPE

2. This standard covers materials, physical and chemical properties, and certification of quality of emulsifying type coal tar disinfectant.

# GENERAL REQUIREMENTS

- 3. It shall be made of coal tar oils and acids and an emulsifying agent.
- 4. It shall contain not less than 65 percent by weight of oils and acids from coal tar.
  - 5. It shall contain not over 10 percent of water.
  - 6. It shall not contain kerosene or other petroleum distillates.

7. The phenol coefficient shall be determined by the Federal Food and Drug Administration method of test against B. typhosus and shall be clearly stated on the label attached to each shipping container.<sup>1</sup>

- 8. It shall make milky emulsions with water of zero hardness at 20°C (68°F) when diluted in the ratio of 5 parts disinfectant with 95 parts of water for disinfectants of phenol coefficient 10 or under; and in the ratio of 2 parts of disinfectant to 98 parts of water for disinfectants over 10 in phenol coefficient; these emulsions shall show not more than a trace of oily float or sediment when stored for 5 hours at room temperature.
  - 9. It shall remain limpid, showing no sign of naphthalene crystal-

lization down to 0° C in 12 hours.

10. It shall contain less than 5 percent of benzophenol.

11. The disinfectant after standing indefinitely, shall show no separation, no loss of germicidal value, nor any form of decomposition (such as soap separating from the oil) under normal and reasonable conditions of storage.

<sup>&</sup>lt;sup>1</sup> This type of disinfectant is readily available with phenol coefficients ranging from 2 to 20. Contract buyers should specify the phenol coefficient desired.

#### CERTIFICATION AND LABELING

12. The following form of statement on labels,<sup>2</sup> invoices, etc., is recommended:

The \_\_\_\_\_\_ Company certifies this coal tar disinfectant (emulsifying type) to conform to all requirements of the standard adopted by the NATIONAL ASSOCIATION OF INSECTICIDE AND DISINFECTANT MANUFACTURERS, INC., and recorded as Commercial Standard CS70-38 by the National Bureau of Standards of the United States Department of Commerce.

Phenol coefficient \_\_\_\_.

#### EFFECTIVE DATE

The standard became effective on June 10, 1938.

#### STANDING COMMITTEE

The following comprises 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 Division of Trade Standards, National Bureau of Standards, which acts as secretary for the committee.

Manufacturers:

GORDON BAIRD (chairman), Baird & McGuire, Inc., Holbrook, Mass. H. W. Hamilton, The White Tar Co. of New Jersey, Inc., Kearny, N. J. Dr. E. G. Thomssen, The J. R. Watkins Co., Winona, Minn.

Distributors

J. W. Schiffer, The Federal Sanitation Co., Inc., 2340 Euclid Ave., Cleveland, Ohio.

F. A. Hoyt, Frederick Disinfectant Co., Box 1556, Atlanta, Ga. Ellis Davidson, Ellis Davidson Co., Inc., 38 W. 21st St., New York, N. Y.

Users:

Dr. A. H. Johnson, Sealtest, Inc., 1403 Eutaw Place, Baltimore, Md. Dr. C. C. McDonnell, Insecticide Division, Food and Drug Administration, U. S. Department of Agriculture, Washington, D. C.

ROBERT S. FUQUA, Johns Hopkins Hospital, Baltimore, Md.

General interest:

F. W. REYNOLDS (secretary), Division of Trade Standards, National Bureau of Standards, Washington, D. C.

# HISTORY OF PROJECT

On September 20, 1937, the National Association of Insecticide and Disinfectant Manufacturers, Inc., requested the establishment of a commercial standard for coal tar disinfectant (emulsifying 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 membership.

The Division of Trade Standards consulted other interested individuals and organizations, and led the discussion of the proposed commercial standard at a convention of the Association in New York

<sup>&</sup>lt;sup>2</sup> When used on labels this statement is in addition to, and not in lieu of, the ingredient statement required by the Insecticide Act of 1910.

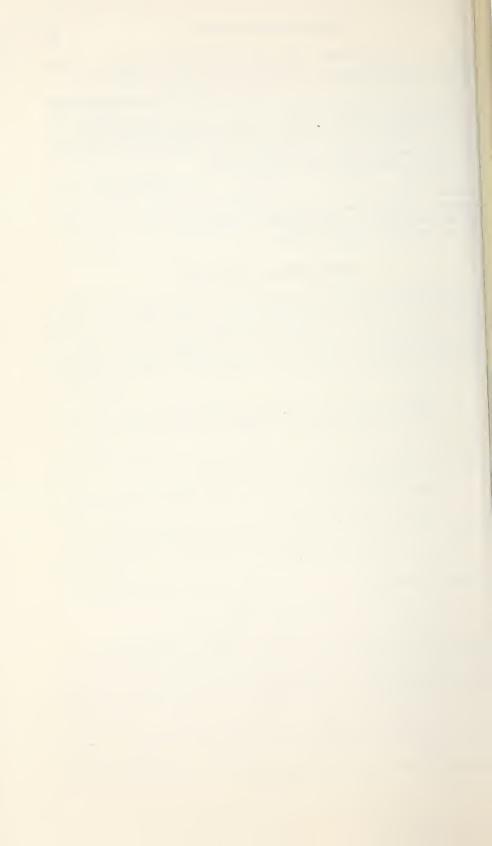
Lity on December 6, 1937. After discussion, the convention voted to ecommend establishment of a commercial standard through the regu-

ar procedure of the National Bureau of Standards.

In view of the large consumer and distributor participation during he Association convention and subsequent review of the proposed comnercial standard by the Federal Food and Drug Administration, it appeared that the purpose of a public hearing had been accomplished and the situation did not warrant the calling of a general conference for further consideration of the specification.

Accordingly, on March 23, 1938, the recommended commercial standard was circulated to the industry for written acceptance by producers, distributors, and users. Following satisfactory acceptance and in the absence of active opposition, the establishment of the stand-

ard was announced June 10, 1938.



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## ACCEPTANCE OF COMMERCIAL STANDARD

This	sheet properly	filled in,	signed, and	returned	will provide for	the recording
of your	organization	as an acc	eptor of thi	s commerc	ial standard.	

Date\_\_\_\_ Division of Trade Standards, National Bureau of Standards, Washington, D. C. Gentlemen: Having considered the statements on the reverse side of this sheet, we accept the Commercial Standard CS70-38 as our standard of practice in the Production 1 Distribution 1 Use 1 of coal tar disinfectant (emulsifying type). We will assist in securing its general recognition and use, and will cooperate with the standing committee to effect revisions of the standard when necessary. Signature of individual officer\_\_\_\_\_\_(In ink) (Kindly typewrite or print the following lines) Name and title of above officer\_\_\_\_\_ Company \_\_\_\_\_ (Fill in exactly as it should be listed in pamphlet) Street address\_\_\_\_\_ City and State\_\_\_\_\_

<sup>&</sup>lt;sup>1</sup> Please designate which group you represent by drawing lines through the other two. Please file separate acceptances for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.

## 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 the industry. 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 industry 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 commercial 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 branches of the industry 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 companies representing a satisfactory majority of production, the success of the project is announced. If, however, in the opinion of the standing committee of the industry or the Department of Commerce, the support of any standard is inadequate, the

right is reserved to withhold promulgation and publication.

## ACCEPTORS

The organizations and individuals listed below have accepted this specification as their standard of practice in the production, distribution, and use of emulsifying type coal tar disinfectant. Such endorsement does not signify that they may not find it necessary to deviate from the standard, nor that producers so listed guarantee all of their products to conform with the requirements of this standard. fore specific evidence of quality certification should be obtained where required.

#### ASSOCIATIONS

American College of Surgeons, Chicago,

American Hospital Association, Committee on Simplification and Standardization of Hospital Furnishings, Supplies, and Equipment, Chicago, Ill.

American Hotel Association of the United States and Canada, New York, N. Y. (In principle.)

American Sanatorium Association, New

York, N. Y.
Associated Industries, Ashton, Md.
National Council of Women, Consumer Interests, Belmont, Mass.

Overlook Hospital Association, Summit,

#### FIRMS

Abbott Co., The, Milwaukee, Wis. Ace Supply Co., Detroit, Mich. Acme Chemical Co., Milwaukee, Wis. Acme Refining Co., The, Cleveland, Ohio.

Acme Sanitary Supply Co., Denver, Colo. Advanced Exterminating Service, Chi-

cago, Ill Alabama School Supply Co., Mont-

gomery, Ala. Allen & Vickers, Atlanta, Ga. (In

principle.) Allott Hardware Co., Alliance, Ohio. American Brush Co., Portland, Oreg. Desk Manufacturing Co., American

merican Description Temple, Tex.
merican Disinfectant Co., Washing-American

American Disinfecting Co., Inc., Sedalia, Mo.

American Fluoride Corporation, New York, N. Y.

American Oil and Disinfectant Corporation, New York, N. Y.

Antiseptic Products Co., The, Denver,

Colo. Antrol Laboratories, Inc., Los Angeles, Calif.

Apex Soap and Sanitary Corporation, Pittsburgh, Pa. Apothecaries Hall Co., Waterbury,

Conn. Manufacturing Co., Kansas Argosy

City, Mo. Arkansas Paper Co., Little Rock, Ark. Armitage Exterminating Co., A., Chi-

cago, Ill.
Arnold Drug Co., Topeka, Kans.
Astor Exterminating Co., Boston, Mass.
Atkins Manufacturing Co., Columbia,

Mo. Atlantic Refining Co., Philadelphia, Pa. (In principle.)

Atlas Sanitary Products, Inc., Wildwood, N. J. Auto-Laks Manufacturing Co., Inc.,

New York, N. Y. Avidan, Inc., Henry G., Freeport, N. Y. Chemical Co., Inc., Akron,

Azuria Ohio. McGuire, Inc., Holbrook, Baird &

Mass., and St. Louis, Mo. Bamford, M. W., Inc., Reading, Pa. (In principle.)

Banner Manufacturing Co., Denver, Colo.

Baptist State Hospital, Little Rock, Ark.

Baron Co., Inc., H. J., El Paso, Tex.
Barton Chemical Co., Chicago, Ill.
Bell Co., S. H., Pittsburgh, Pa.
Benton Service Co., Cortland, N. Y.
Berger Supply Co., Inc., S. J., Brooklyn, N. Y.

Berghauser Co., J. W., Scranton, Pa. Bernstein Co., The, Los Angeles, Calif. Best Chemical Co., Fort Worth, Tex. Beuret Chemical Laboratories, Fort

Wavne, Ind.

Birmingham, City of, Birmingham, Ala. Blue Heven Corporation, The, North Kansas City, Mo. Blue Ribbon Sanitary Products, St.

Louis, Mo.
Bohman Brothers, Inc., Hartford, Conn.
Boren & Malone Co., Wewoka, Okla.
Bragdon Paint Co., M. F., Portland,

Maine. Braham Laboratories, Inc., Cleveland, Ohio.

Breslau & Lyndwood Supply Co., Plymouth, Pa.

Breuer Electric Manufacturing

Chicago, Ill. (In principle.) Brigham Co., C. T., Pittsfield, Mass. Brilliant Chemical Co., Inc., Brooklyn, N. Y.

Brown, Inc., I. Edward, New York, N. Y.

Buffalo Scientific Co., Buffalo, N. Y Builders' Specialty Co., Peoria, Ill. principle.)

Building Supply Co., Chicago, Ill. Butler Co., William, Providence, R. I. By-Joy Chemical Products, Stockton, Calif.

Cabell Chemical Co., The, Huntington, W. Va.

Calde Exterminating Co., New York, N. Y.

Caldwell, Pittsburgh, Pa.

Canadian Germicide Co., Ltd., Toronto, Canada.

Capitol Paper Co., Hartford, Conn. (In principle.)

Carman-Roberts Co., Inc., Pittsburgh, (In principle.) Pa.

Castle Chemical Co., New Castle, Pa. Centennial Drug and Supply

Denver, Colo. Central Chemical Co., Kansas City, Mo.

Central Mercantile Co., St. Joseph, Mo. Central Supply Co., Buffalo, N. Y. Central Wisconsin Paper Co., Wasau,

Wis.

Certified Products Co., Inc., Birmingham, Ala.

Certified Supply Co., New York, N. Y. Chafee Supply Service, Shelbyville, Ind. Chapman & Sons Co., W. H., Wheeling, W. Va.

Charlotte Sanitary Supply Co., Charlotte, N. C.

Chemical Products, Inc., Shelton, Conn. Chemical Specialties Co., Milwaukee, Wis.

Chemical Spray Co., Minneapolis, Minn.

Chemical Supply Co., The, Cleveland, Ohio.

Children's Country Home, Westfield, N. J.

Chippewa Products Co., St. Louis, Mo. Chrisman Supply Co., Inc., Fayette-ville, N. Y.

Cincinnati, City of, Cincinnati, Ohio. City Janitor Supply and Brush Co., St. Louis, Mo.

Clark Products Co., Springfield, Mass. Clark's Store Fixtures, Flint, Mich. Clarkson Chemical Co., Inc., South

Williamsport, Pa.

Cochrane Co., Billerica, Mass.

Cody Chemical Co., Manchester, N. H. Colborn School Supply Co., Grand Forks, N. Dak.
Conkey Co., The G. E., Cleveland, Ohio. Conray Products Co., New York, N. Y. Consolidated Drug Corporation, New Coleman Leaves Leaves

Orleans, La. Consumers' Testing Laboratories, Philadelphia, Pa. (In principle.) Continental Chemical Co., The, Cleve-

land, Ohio.
Cooper, D. L., Brooklyn, N. Y.
Copley Chemical Co., Everett, Mass.
Corkins Chemical Co., The, Cincinnati, Ohio.

Cotton Products Co., Des Moines, Iowa.

Creco Co., Inc., Long Island City, N. Y. Crosetti Bro. & Co., A. San Francisco, Calif.

Crown Chemical Corporation, Milwaukee, Wis.

Crystal Laboratories Co., The, Pittsburgh, Pa.
Danville Wholesale Drug Co., Inc.,

Danville, Ill.

David & Blankfield, Inc., San Antonio, Tex.

Davies-Young Soap Co., The, Dayton, Ohio.

Deco Products Co., Inc., New York, N. Y. Delta Chemical Co., New York, N. Y.

Delta Plumbing Supply Co., Inc., New Orleans, La.

DeLuxe Broom Co., Portland, Oreg. Del-Zo Co., Atlanta, Ga. (In principle.)

Den Wal Manufacturing Co., The, Piermont, N. Y.

Dentocide Chemical Co., Baltimore, Md.

DeVine Laboratories, Inc., J. F., Goshen, N. Y. Diamond Chemical and Supply Co.,

Wilmington, Del.

Dixie Chemical Co., Inc., New Orleans, La.

Chemical Products Co., Ltd., Dixie Birmingham, Ala.

Dixie Disinfecting Co., Dallas, Tex.
Dolge Co., C. B., Westport, Conn.
Dow Chemical Co., The, Midle
Mich. (In principle.) Midland.

Dreyfus Janitor Supply Co., Ponca City, Okla.
Eau Claire Book and Stationery Co.,

Milwaukee, Wis.

Ellis Products Co., Detroit, Mich.

Empire Chemical Co., Brooklyn, N. Y. Ens-Em Chemical Co., New York, (In principle.) N. Y.

Enterprise Madelphia, Pa. Mill Soap Works, Phila-

Ephraim, Inc., Jerome W., New York, N. Y.

Ewing Paper Co., B. G., Spokane, Wash.

Exterminator Engineering Corporation, Chicago, Ill. Federal Sanitation Co., Inc., The,

Cleveland, Ohio.

Fidelity Fire Protection Co., Philadelphia, Pa. Fischbeck Charles,

Co., Inc., CM. Y. (In principle.) York, N. Y. (In principle.)
Fox Midwest Amusement Corporation,

Kansas City, Mo.
Frankle, Inc., Jos. E., Philadelphia, Pa.
Franklin Chemical Co., Rochester, N. Y.
Franklin Drug Store, Port Arthur, Tex. Franklin Products Corporation, Tampa, Fla.

Franklin Thrift Stores Co., The, Piqua,

Ohio.

Frederick Disinfectant Co., Atlanta, Ga.

Frye Co., Geo. C., Portland, Maine. (In principle.)

Fuld Brothers, Baltimore, Md. Furst-McNess Co., Freeport, Ill. Gakenheimer's Pharmacy, Baltimore,

Gates Medicine Co., Charleston, W. Va.

Genesee Disinfecting Co., Rochester, N. Y.

Getem Manufacturing Co., Norfolk, Va.

Giant Products Corporation, Los Angeles, Calif. Gillam Soap Works, Ft. Worth, Tex.

Givaudan-Delawanna, Inc., New York,

N. Y. (In principle.)
Gleam Products Corporation, Bronx,

Globe Sanitary Supply Co., Los Angeles, Calif.

Gobell Co., John J., New Bedford, Mass.

Goble Printing Co., The D. H., Greenfield, Ind.

Good, Inc., James, Philadelphia, Pa. Government Chemical Co., Cleveland, Ohio.

Grant Laboratories, Oakland, Calif. Great Falls Paper Co., Great Falls, Mont.

Great Lakes Chemical Utilities, Buffalo, N. Y.

Green Oil Soap Co., Chicago, Ill. Greenbaum Co., Inc., C. D., New

York, N. Y.
Griffin Bros., Inc., Portland, Oreg.
Griffin Chemical Co., San Francisco,
Calif. (In principle.)

Gulf Oil Corporation, Pittsburgh, Pa. (In principle.)

Gulf Refining Co., Pittsburgh, Pa. principle.)

Gulf Research and Development Co., Pittsburgh, Pa. (In principle.)

H. & L. Products Co., Linden, N. J. (In principle.) Haag Laboratories, Inc., The, Chicago,

Ill.

Hammond & Son, Inc., W. P., Milwaukee, Wis. Hart-Shaw Drug Co., Adrian, Mich.

Hartford Sanitary Products Co., The, Hartford, Conn.

Heaney Manufacturing Co., Boston, Mass.

Helgren Drug Co., Jamestown, N. Y. Hess & Clark, Inc., Dr., Ashland, Ohio. Hill Brothers Chemical Co., Los Angeles, Calif.

Hillyard Chemical Co., St. Joseph, Mo. Hirschberg Brothers, Chicago, Ill. Hockwald Chemical Co., San Fran-

cisco, Calif.

Hoffman Laboratories, Detroit, Mich. Holcomb Manufacturing Co., J. I., Indianapolis, Ind.

Hospital Bureau of Standards and Supplies, Inc., New York, N. Y. Household Chemical Products, Brook-

lyn, N. Y. Household Products Co., Indianapolis,

Ind. Hub City School Supply Co., Aberdeen, S. Dak.

Hudson Chemical Co., St. Louis, Mo. Huggins & Son, James, Malden, Mass. Hughes Chemical Co., Ft. Worth, Tex. Husking & Co., Inc., Chas. L., New York, N. Y.

Hunt Manufacturing Co., Cleveland, Ohio.

Hy-Gien Laboratories, Inc., Amesbury, Mass.

Hysan Products Co., Chicago, Ill. Imperial Chemical Co., Shenandoah, Iowa.

Imperial Laboratories, Mt. Hope, W. Va. Imperial Products Co., Philadelphia, Pa.

Imperial Sales Co., Halifax, Mass. Chemical Laboratories, Industrial

Omaha, Nebr. Products Industrial Chemical Co.,

Philadelphia, Pa. Industrial Distributors, Inc., New York,

N. Y.

Interstate Chemical Mfg. Co., Jersey City, N. J.

Interstate Sanitation Co., Inc., The, Cincinnati, Ohio.

Iowa Hospitals, State University of, Iowa City, Iowa.

Jacques Beauty Supply, Omaha, Nebr. (In principle.)

James Soap and Chemical Co., Houston,

Janitorial Supply Co., Passaic, N. J.

Janitor's Supply House, Cranston, R. I. Johnson Co., The George T., South Boston, Mass.

Jordan, Jr., Manufacturing Co., W. H. & F., Philadelphia, Pa.

Jorgenson & Co., Los Angeles, Calif. Judson Co., The Dwight R., Hartford, Conn.

Kalo Co., The, Quincy, Ill. (In prin-

ciple.)

Keller Products Co., Columbus, Ohio. Kemiko Manufacturing Co., Irvington, N. J.

Kentucky Color and Chemical Co.,

Louisville, Ky.

Kerr Co., Frank W., Detroit, Mich. King Chemical Co., Philadelphia, Pa. Kirk Hutton & Co., New Castle, Pa. Kling Exterminating Co., Chicago, Ill. Kretol Co., Inc., Washington, D. C. Krummenacher Drug Co., Clayton, Mo. Kuhn Manufacturing Co., The, Macon,

L. B. Drug Co., The, Gadsden, Ala. La Maison Products, Inc., Brooklyn,

N. Y. Lambert Chemical Co., Kansas City,

Mo. Lamprey Products Co., St. Paul, Minn.

Lanair Čo., Chicago, Ill. Co., Leader Manufacturing Wilkes-Barre, Pa.

Lee Co., A., Lawrence, Mass.

Lee Co., Geo. H., Omaha, Nebr. Lehn & Fink Products Corporation, Bloomfield, N. J.

Lehrman & Sons, A. J., Harrisburg, Pa. Lesh Oil Co., Ottawa, Kans. Lewis Co., Inc., Samuel, New York, N. Y.

Lien Chemical Co., Chicago, Ill. Lincoln-Ray Hill Co., Springfield, Mass. Lone Star Supply Co., Houston, Tex. Long Beach, Better Business Bureau of. Long Beach, Calif. (In principle.)

Island Sanitary Supply ong Island Sanitary Supp Woodside, Long Island, N. Y Los Angeles Chemical Co., Los Angeles,

Calif. Los Angeles, City of, Los Angeles, Calif.

Louisiana Paper Co., Ltd., Shreveport, La.

Loveland Janitor Supply Co., Wichita,

Lowe Chemical Co., Nashville, Tenn. Mac Nair-Dorland Co., Inc., New York,

N. Y. (In principle.) Magicleaner Corporation, New York,

N. Y. (In principle.)
Maine Germicide Co., Portland, Maine.
Maintenance Supply and Service Co.,

Chicago, Ill. Majestic Wax Co., Denver, Colo. Marjo Products Co., Chicago, Ill. Marlowe-Van Loan Corporation, High

Point, N. C.

Massasoit Chemical Co., The, Cincinnati, Ohio.

Masury Young Co., Boston, Mass. McKesson & Robbins, Inc., Langley-Michaels Division, San Francisco,

Calif. McKone Sales Co., Hartford, Conn.

McLeod Exterminating Service, Roches-

ter, N. Y. Merck & Co., Inc., Rahway, N. J. Meyer Chemical Co., Sioux City, Iowa. Miami Products and Chemical Co.,

The, Dayton, Ohio.
Midwest Kildew Co., Des Moines, Iowa.
Miller Chemical Co., Inc., Omaha,

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m Nebr}.$ 

Miller Co., J. E., Wheeling, W. Va. Miller Products Co., Portland, Oreg. (In principle.)
Mil-Wis Chemical Co., Milwaukee, Wis.

Miracle Manufacturing Co., Ft. Wayne,

Mirax Chemical Products Corporation, St. Louis, Mo.

Missanna Laboratories, Inc., Little

Rock, Ark. Monarch Printing and Supply Co., The, Marion, Ohio. (In principle.)

Moulder-Oldham Co., İnc., Tulsa, Okla. Murtough Supply Co., Tacoma, Wash.

Murtough Supply Co., Tacoma, We Myers Paper Co., Memphis, Tenn. Nannene & Co., P., Chelsea, Mass. Nash Medical Co., F. A., Galena, Ill. National Chemical Co., New Orleans,

La. National Cleanser Products Co., New York, N. Y.

National Disinfecting Co., New York, Ν. Υ.

National Theatre Supply Co., Seattle, Wash.

New England Disinfectant Co., Inc., The, Boston, Mass.

New Orleans, Inc., Better Business Bureau of, New Orleans, La. (in principle.)

Neway Brush Co., Hartford, Conn. (In principle.)

Newbro Drug Co., Butte, Mont.

Newerking Cleaning Fluid Co., New York, N. Y. (In principle.)

New York, N. Y. (In principle.)
Newport Industries, Inc., General Naval
Stores Division, Pensacola, Fla. (In principle.)

Newton & Co., A. E., Brooklyn, N. Y. North American Chemical Co., New York, N.Y.

Northern Indiana Supply Co., Inc., Kokomo, Ind.

Northern Laboratories, Mason City, Iowa.

Northern School Supply Co., Fargo, N. Dak.

Northern School Supply Co., Great Falls, Mont.

Nu-Way Exterminating Co., Newark, N. J.

O'Connor & Kremp, New York, N. Y. Omaha School Supply Co., Omaha, Nebr.

Oneida Chemical Co., Inc., Utica, N. Y.

Orange Memorial Hospital, Orange N.J. Co., The Charles, Norwich, Osgood

Conn. Pacific Marine Supply Co., Seattle, Wash.

Packer-Scott Co., Portland, Oreg. Palmer Products, Inc., Waukesha, Wis. Palmyra Lime Products Co., Clarks-ville, Tenn.

Panama Paint and Chemical Products Co., Panama City, Fla.

Paramount Laboratories, Inc., Bing-hamton, N. Y. Parkin Chemical Co., Newark, N. J. Paterson General Hospital, Paterson,

N. J. Peabody Anti-Dust Co., Peabody, Mass.

(In principle.)

Pearl Supply Co., New York, N. Y. Peerless Soap and Chemical Co., Detroit Mich.

Penn Waxing and Janitor Supplies, Wilkes Barre, Pa.

Pennsylvania Chemical Co., Johnstown,

Pennsylvania, Commonwealth of, Department of Property and Supplies, Harrisburg, Pa.

Pennsylvania Hospital, Philadelphia,

Pennsylvania Salt Manufacturing Co., General Laboratories Division of, Philadelphia, Pa.

Phinney & Co., F. B., Hyde Park, Mass. Phinotas Chemical Co., Inc., New York,

Pine-O-Pine Co., Inc., of Texas, Houston, Tex.

Pintell Co., The, New York, N. Y. Pittsburgh Insect Exterminating Co., Pittsburgh, Pa.

Polar Chemical Co., Inc., The, Lewiston

Port Huron Detergent Co., Inc., Port Huron, Mich. (In principle.)
Potter Drug and Chemical Corporation, Malden, Mass. (In principle.)
Pottsville Show Case and Fixture Co.,

Pottsville, Pa.

Powell & Co., Inc., ...
N. Y. (In principle.)
Practical Drawing Co., Dallas, Tex.
Co. Inc., B., Charleston, W. Va.

Puro Chemicals, Inc., Cleveland, Ohio. Quality Products Laboratories, Inc., Richmond, Va.

Range Paper Co., Inc., Virginia, Minn. Rawleigh Co., The W. T., Freeport, Ill. Red Letter "J" Co., Germantown, Philadelphia, Pa.

Reilly Tar and Chemical Corporation, Indianapolis, Ind.

Remo Sanitation Co., Pittsburgh, Pa.

Republic Chemical Co., Chicago, Ill. Reynolds & Sons, James T., Lapeer, Mich.

Richmond Stationery Co., Inc., Richmond, Va. (In principle.)

Rip Products, Jamaica, Long Island, N. Y.

Robbins Disinfectant Co., Inc., Geo. B., Boston, Mass.

Roberts & Meck, Inc., Harrisburg, Pa. Robertson Products Co., Inc., Theo. B., Chicago, Ill. Rochester Germicide Co., Rochester,

N. Y.

Rochester Janitor Supplies, Inc., Rochester, N. Y.

Rochester Laboratories, Rochester, Minn. (In principle.)

Rockwell Co., The, Pittsfield, Mass. Rose Exterminator Co. of San Francisco, Calif., San Francisco, Calif. Roure-Dupont, Inc., New York, N. Y.

(In principle.)

Rupp & Bowman Co., The, Toledo, Ohio.

Rusk Oil Co., Inc., Philadelphia, Pa. St. John's Hospital, Brooklyn, N. Y. St. Louis Janitor Supply Co., St. Louis,

St. Luke's Hospital, Bethlehem, Pa. Sancamo Disinfecting Co., Springfield,

Sanitary Appliance Co., Elmira, N. Y. Sanitary Maintenance Co., Boston. Mass.

Satrang & Cleminson, Inc., Sioux City, Iowa.

Savannah Brush Co., Savannah, Ga. Sayers & Co., Philadelphia, Pa.

Scientific Exterminating and Fumigating Co., West New York, N. J. Scientific Supply Co., Inc., Denver,

Colo. Scranton Better Business Bureau, Scran-

ton, Pa. (In principle.) Seacoast Laboratories, Inc., New York,

N. Y.

Seaver Laboratories, Beloit, Wis. principle.)

Selig Co., The, Atlanta, Ga. Selma Chemical Products Co., New

York, N. Y. Sentinel Chemical Co., Inc., Oakland, Calif.

Sentinel Sanitary Supply Co., Oakland, Calif.

Service Station Supply Co., Charlotte, N. C.

Shearer Co. of California, B. F., San Francisco, Calif.

Sheppard Supply Co., M. F., Bayonne, N. J.

Sioux Falls Book and Stationery Co., Sioux Falls, S. Dak.

Skinner & Sherman, Inc., Boston, Mass. (In principle.)

Smith & Co., S. A., New York, N. Y. Snell, Inc., Foster D., Brooklyn, N. Y.

Solomons Co., Savannah, Ga.

Manufacturing Co., Cam-Solshine bridge, Mass.

Solvent Compounds Co., Redwood City, Calif.

Southern Chemical Co., Charleston, W. Va.

Southwestern Mill Distributors. E1Paso, Tex.

Southwestern Seating Co., San Antonio, Tex.

Speare's Sons Co., The Alden, Cam-

bridge, Mass. Standard Chemical Co., St. Louis, Mo. (In principle.)

Standard Janitors Supply Co., Inc., New York, N. Y.

Standard School Co., St. Louis, Mich. Star Chemical Co., Inc., San Antonio, Tex.

Star Drug Store, Galveston, Tex.

Sterling Office and School Supply Co., Johnstown, Pa.

Sterling Scap and Chemical Co., Inc., Wilmington, Del.

Sunrise Supply Co., New York, N. Y. Superior Chemical Co., Houston, Tex. Superl Supply Co., Inc., Los Angeles, Calif.

Sur. Wa. Exterminator Co., Cincinnati, Ohio.

Sweet Ozone Co., Brooklyn, N. Y. Syracuse Victory Soap Corporation,

Syracuse, N. Y.
N. T. Exterminating Co., Akron, Ohio.

Tanglefoot Co., The (The O. & W. Thum Co.), Grand Rapids, Mich. Taylor Co., H. D., Buffalo, N. Y.

Terra Chemical Corporation, New York, N. Y.

Texas Household Supply, Dallas, Tex., and Fort. Worth, Tex.

Thompson-Hayward Chemical Co.,

Kansas City, Mo.
Traband & Co., Inc., Louis C., East
St. Louis, Ill.

Tri-State Janitor Supply Co., Wilmington, Del.

Triangle Products Co., Fairfield, Maine. Tropical Chemical Co. of California, Los Angeles, Calif.

TryAidProducts Chemical Co., Youngstown, Ohio.

Tulip Grove Products, Inc., Hermitage, Tenn.

Tumbler Laboratories, J. A., Baltimore,

Tunis Brothers Co., Kennett Square, Pa. Tyler Oil and Grease Corporation, Richmond, Va.

Tyler Products Co., Pawtucket, R. I. Union Chemical and Supply Co., The, Akron, Ohio.

Soap and Chemical, Inc., Pittsburgh, U. S. Termite Control Corporation, Pa. Ltd., Pasadena, Calif.

Universal Exterminating Co., Columbus, Ohio. University Publishing Co., The, Lin-

coln, Nebr. Van Denberg Supply Co., Rockford, Ill. Vasco Products Co., Inc., Elmira, N. Y.

Vawter Manufacturing Co., J. H., Salem, Ill.

Vernon Drug Co., Middletown, N. Y. Vestal Chemical Co., St. Louis, Mo.

Victory Chemical Co., Philadelphia, Pa. Waite Hardware Co., Worcester, Mass. Walsh, William Henry, Chicago, Ill. Ward Co., D. L., Philadelphia, Pa. Wasatch Chemical Co., Salt Lake City,

Utah.

Washington School Supply Co., Seattle, Wash.

Watkins Co., The J. R., Winona, Minn. Waverly Manufacturing Co., Philadelphia, Pa. (In principle.)

West Disinfecting Co., Long Island City, N. Y.

Wetalene Lab., Inc., Columbus, Ohio. (In principle.)

White Co., L. J., Chicago, Ill.
White Co., Robert C., Philadelphia, Pa.
White Tar Co. of N. J., Inc., The,
Kearny, N. J.

Whitmoyer Laboratories, Inc., Myerstown, Pa.

Wholesale Janitors' Supply Co., Chicago, Ill.

Whopper Sales, Buffalo, N. Y.

Wichita Broom and Floor Sweep Co., Wichita Falls, Tex. (In principle.) Wilbur Chemical Co., North Bergen,

N. J. Williams Chemical Laboratories, Spring-

field, Ill Williams Co., J. A., Pittsburgh, Pa. Willis Sanitary Products Co., Lincoln,

Nebr. Willis Supply Co., Duluth, Minn. Winsale Drug Co., Brooklyn, N. Y.

(In principle.) Wisconsin, State of, Bureau of Purchases, Madison, Wis. (In principle.) Wollen Chemical and Supply Co., Paterson, N. J.

Wonder Products Co., Salisbury, N. C. World Spray Co., Inc., Los Angeles, Calif.

Yaeger-Jacquin Co., Peoria, Ill. York Co., The G. W., Madrid, Iowa.

Zahr Soap Manufacturing Co., Kansas City, Mo.

Zenoleum Products Co., Detroit, Mich.

#### U. S. GOVERNMENT

U. Agriculture, S. Department of, Washington, D. C. War Department, Washington, D. C.

# COMMERCIAL STANDARDS

CS No. Item	CS No. Item			
0-30. The commercial standards service and its	40-32. Surgeons' rubber gloves.			
value to business.	41–32. Surgeons' Latex gloves.			
1-32. Clinical thermometers (second edition).	42-35. Fiber insulating board (second edition).			
2-30. Mopsticks.	43-32. Grading of sulphonated oils.			
3-38, Stoddard solvent (second edition).	44–32. Apple wraps.			
4-29. Staple porcelain (all-clay) plumbing fixtures.	45-36. Douglas fir plywood (domestic grades)			
5-29. Steel pipe nipples.	(second edition).			
6-31. Wrought-iron pipe nipples (second edition).	46-36. Hosiery lengths and sizes (second edition).			
7-29. Standard weight malleable iron or steel	47-34. Marking of gold-filled and rolled-gold-plate			
screwed unions.	articles other than watch cases.			
8-33. Gage blanks (second edition).	48-34. Domestic burners for Pennsylvania anthracite			
9-33. Builders' template hardware (second edition)	(underfeed type).			
10-29. Brass pipe nipples.	49-34. Chip board, laminated chip board, and mis-			
11-29. Regain of mercerized cotton yarns.	cellaneous boards for bookbinding purposes.			
12-38. Fueloils (fourth edition).	50-34. Binders board for bookbinding and other			
13-30. Dress patterns.	purposes.			
14-31. Boys' blouses, button-on waists, shirts, and	51-35. Marking articles made of silver in combina-			
junior shirts.	tion with gold.			
15–29. Men's pajamas.	52-35. Mohair pile fabrics (100-percent mohair plain			
16-29. Wall paper.	velvet, 100-percent mohair plain frieze, and			
17-32. Diamond core drill fittings (second edition).	50-percent mohair plain frieze). 53-35. Colors and finishes for cast stone.			
18-29. Hickory golf shafts.	54-35. Mattresses for hospitals,			
19-32. Foundry patterns of wood (second edition). 20-36. Staple vitreous china plumbing fixtures	55-35. Mattresses for institutions.			
(second edition).	56-36. Oak flooring.			
21-36. Interchangeable ground-glass joints, stop-	57-36. Book cloths, buckrams, and impregnated			
cocks, and stoppers (third edition).	fabrics for bookbinding purposes except			
22-30. Builders' hardware (nontemplate).	library bindings.			
23-30. Feldspar.	58-36. Woven elastic fabrics for use in overalls			
24-30. Standard screw threads.	(overall elastic webbing).			
25–30. Special screw threads.	59-36. Woven dress fabrics—testing and reporting.			
26-30. Aromatic red cedar closet lining.	60-36. Hardwood dimension lumber.			
27-36. Mirrors (second edition).	61-37. Wood-slat venetian blinds.			
28-32. Cotton fabric tents, tarpaulins, and covers.	62-38. Colors for kitchen accessories.			
29–31. Staple seats for water-closet bowls.	63-38. Colors for bathroom accessories.			
30–31. Colors for sanitary ware.	64-37. Walnut veneers.			
31–35. Wood shingles (third edition).	65–38. Wool and part-wool fabrics.			
32-31. Cotton cloth for rubber and pyroxylin coating.	66-38. Marking of articles made wholly or in part of			
33-32. Knit underwear (exclusive of rayon).	platinum.			
34-31. Bag, case, and strap leather.	67–38. Marking articles made of karat gold.			
35-31. Plywood (Hardwood and Eastern Red	68-38. Liquid hypochlorite disinfectant, deodorant,			
Cedar).	and germicide.			
36-33. Fourdrinier wire cloth (second edition).	69-38. Pine oil disinfectant.			
37-31. Steel bone plates and screws.	70-38. Coal tar disinfectant (emulsifying type).			
38-32. Hospital rubber sheeting.	71-38. Cresylic disinfectants.			
39-37. Wool and part wool blankets (second edition).	172-38. Household insecticide (figure spray type).			

Notice.—Those interested in commercial standards with a view toward accepting them as a basis of everyday practice in their industry may secure copies of the above standards, while the supply lasts, by addressing the Division of Trade Standards, National Bureau of Standards, Washington, D. C.

