## U. S. DEPARTMENT OF COMMERCE

DANIEL C. ROPER, Secretary

NATIONAL BUREAU OF STANDARDS

LYMAN J. BRIGGS, Director

# PINE OIL DISINFECTANT

Bureau of Standards SEP 30 1938

**COMMERCIAL STANDARD CS69-38** 

Effective Date, June 10, 1938



A RECORDED STANDARD OF THE INDUSTRY

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON: 1938

## PROMULGATION

of

## COMMERCIAL STANDARD CS69-38

for

## PINE OIL DISINFECTANT

On September 20, 1937, the National Association of Insecticide and Disinfectant Manufacturers, Inc., proposed the establishment of a Commercial Standard for Pine Oil Disinfectant. 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.

## PINE OIL DISINFECTANT

# COMMERCIAL STANDARD CS69-38

#### 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 pine oil disinfectant manufactured in conformity with a nationally recognized specification.

#### SCOPE

2. This standard covers materials, physical and chemical properties, and certification of quality of pine oil disinfectant.

## GENERAL REQUIREMENTS

3. The product shall be manufactured from pure steam distilled pine oil and emulsifying agent and remain clear and homogeneous under normal and reasonable conditions of storage.

4. It shall contain not less than 60 percent by weight steam distilled

pine oil.

5. It shall contain not more than 10 percent of water.

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

7. It shall not contain kerosene or other petroleum distillates.

8. The product shall make a stable emulsion in water of zero hardness at 20° C (68° F) when diluted in the ratio of 5 parts disinfectant with 95 parts of water. The emulsion after standing for at least 24 hours shall show no sign of oil float (unsaponified or clear free oil).

#### CERTIFICATION AND LABELING

9. The following form of statement on labels,2 invoices, etc., is recommended:

The \_\_\_\_\_\_ Company certifies this pine oil disinfectant to conform to all requirements of the standard adopted by the NATIONAL ASSOCIATION OF INSECTICIDE AND DISINFECTANT MANUFACTURERS, INC., and recorded as Commercial Standard CS69-38 by the National Bureau of Standards of the United States Department of Commerce. Phenol coefficient \_\_\_\_

3 to 4.

<sup>1</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.

<sup>1</sup> Products made under this specification from good quality pine oil should have a phenol coefficient from

#### 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 Company 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.

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 pine oil disinfectant, 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 City on December 6, 1937. After discussion the convention voted to recommend establishment of a commercial standard through the regular procedure of the National Bureau of Standards.

In view of the large consumer and distributor participation during the Association convention and subsequent review of the proposed commercial 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 standard was announced June 10, 1938.

#### ACCEPTANCE OF COMMERCIAL STANDARD

	This	sheet prope	rly filled	d in, sign	ed, and	returned	will	provide	for	the	recordi	ng
of	your	organizatio	n as an	acceptor	of this	commerc	cial s	tandard				

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 CS69-38 as our standard of practice in the Production 1 Distribution 1 Use 1 of pine oil disinfectant. 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 devitate 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 pine oil disinfectant. Such endorsement does not singify 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. Therefore specific evidence of quality certification should be obtained where required.

#### ASSOCIATIONS

American College of Surgeons, Chicago, Antrol Laboratories, Inc., Los Angeles,

American Hospital Association, Committee on Simplification and Stand-

ardization of Hospital Furnishings, Supplies and Equipment, Chicago, Ill.

Hotel Association of American 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, C

Consumer Interests, Belmont, Mass. Overlook Hospital Association, Summit, N. J.

#### 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, Chicago, Ill.

Alabama School Supply Co., Montgomery, Ala. Allen & Vickers, Atlanta, Ga.

(In principle.)

Allott Hardware Co., Alliance, Ohio. Alpha Chemical Co., Inc., Baltimore, Md.

American Brush Co., Portland, Oreg. American Desk Manufacturing Co., Temple, Tex. American Disinfectant Co., Washing-

ton, D. C.

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.

Calif.

Apex Soap and Sanitary Corporation, Pittsburgh, Pa.

Apothecaries Hall Co., Waterbury, Conn.

Argosy Ma City, Mo. Manufacturing Co., Kansas

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. Azuria Chemical Co., Inc., Akron, Ohio. Baird & McGuire, Inc., Holbrook, Mass., and St. Louis, Mo.

Bamford, Inc., M. W., Reading, Pa. (In principle.)

Banner Manufacturing Co., Denver, Colo.

Baptist State Hospital, Little Rock, Ârk.

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, Wayne,

Ind.

Birmingham, City of, Birmingham Ala. Black & Co., Decatur, Ill. Blue Heven Corporation, The, N. Kan-

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

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

Buffalo Scientific Co., Buffalo, N. Y. Builders' Specialty Co., Peoria, I I11. (In 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 I Exterminating Co., New York,

Caldwell, Pittsburgh, Pa.

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

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

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

Castle Chemical Co., New Castle, Pa. Co., 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., Wausau, Wis.

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

Certified Supply Co., New York, N. Y. Chafee Supply Service, Shelbyville, Ind. Chamberlain Chemical Co., T. D., Scranton, Pa.
Chapman & Sons Co., W. H., Wheeling,
W. Va. (In principle.)

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

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

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.

City Service Cleaning Contractors, Inc., Pittsburgh, Pa.

ClarkProducts Co., Springfield, Mass. Clark's Store Fixtures, Flint, Mich. Clarkson Chemical Co., Inc., S. Wil-

liamsport, Pa. Cochrane Co., Billerica, Mass.

Cody Chemical Co., Manchester, N. H. Colborn School Supply Co., Grand Forks, N. Dak.

Conray Products Co., New York, N. Y. Consolidated Drug Corporation, New Orleans, La.

Consumers' Testing Laboratories, Philadelphia, Pa. (In principle.)

Continental Chemical Co., The, Cleveland, 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, Mil-

waukee, Wis. anville Wholesale Drug Co., Inc., Danville Danville, Ill.

Darrow Chemical Co., Kansas City, Mo. David & Blankfield, Inc., San Antonio,

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. 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. Dixie Chemical Products Co., Ltd.,

Birmingham, Ala.

Dixie Disinfecting Co., Dallas, Tex. Dolge Co., C. B., Westport, Conn. Dow Chemical Co., The, Midla Midland,

Mich. (In principle.)

Dreyfus Janitor Supply Co., Ponca

City, Okla.

East Utica Glass and Bar Supply Co., Utica, N. Y.

Eau Claire Book and Stationery Co., Milwaukee, Wis.

Ellis Products Co., Detroit, Mich. Empire Chemical Co., Brooklyn, N. Y. Endo Chemical Co., Columbia, S. C.

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

Enterprise Mill Soap Works, Philadelphia, Pa.

Ephraim, Inc., Jerome W., New York, Gulf Research and Development Co., N. Y

Ewing Paper Co., B. G., Spokane, Wash. Exterminator Engineering Corporation, Chicago, Ill. Federal Sanitation Co., Inc.,

Cleveland, Ohio.

Fidelity Fire Protection Co., Philadelphia, Pa. Fischbeck Co., Inc., Charles, New 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. Frontier Alkali Corporation, Buffalo,

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

Fuld Brothers, Baltimore, Md. G-I-Cleaning Products, Chicago, Ill. Gakenheimer's Pharmacy, Baltimore,

Gates Medicine Co., Charleston, W. Va. Genesee Disinfecting Co., Rochester,

Getem Manufacturing Co., Norfolk, Va. Giant Products Corporation, Los Angeles, Calif. Gillam Soap Works, Fort Worth, Tex.

Givaudan-Delawanna, Inc., New York,

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

N. Y. 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. Gordon Chemical Co., Geo. C., Kansas

City, Mo.

Government Chemical Co., Cleveland, Ohio.

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

Great Lakes Chemical Utilities, Buffalo,

Green Mask Laboratories, Sioux City,

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.)

Pittsburgh, Pa. (In principle.)

H. & L. Products Co., Linden, N. J.

(In principle.) Haag Laboratories, Inc., The, Chicago,

Hammond & Son, Inc., W. P., Milwaukee, Wis.

Hart-Shaw Drug Co., Adrian, Mich.

Hartford Sanitary Products Co., The, Hartford, Conn. Hayner Co., Norman C., Rochester,

Ň. Y. Heaney Manufacturing Co., Boston, Mass.

Helgren Drug Co., Jamestown, N. Y. Hercules Powder Co., Naval Stores De-Wilmington, partment, Del.

principle.) 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 Francisco, 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, Hub City School Supply Co., Aberdeen,

S. Dak. Hudson Chemical Co., St Louis, Mo.

Huggins & Son, James, Malden, Mass. Hughes Chemical Co., Fort Worth, Tex. Huisking & Co., Inc., Chas. L., New York, N. Y.

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 Industrial Laboratories, Omaha, Nebr. Industrial Chemical Products Co., Phil-

adelphia, Pa.

Industrial Distributors, Inc., New York, N. Y.

Insect Control Service, Pittsburgh, Pa. Interstate Chemical Manufacturing Co., Jersey City, N. J.

Iowa Hospitals, State University of,

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

James Soap and Chemical Co., Houston, | Maintenance Supply and Service Co., Tex.

Janitorial Supply Co., Passaic, N. J. Janitor's Supply House, Cranston, R. I. Johns Hopkins Hospital, The, Baltimore, Md.

Johnson Co., The George T., S. 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 principle.) Kel er Products Co., Columbus, Ohio.

Kemiko Manufacturing Co., Irvington,

Kentucky Color and Chemical Co., Louisville, Ky.

Kerr Co., Frank W., Detroit, Mich. King Chemical Co., Philadelphia, Pa. Kirk Hutton & Co., New Castle, Pa. Kleen Rite Cleaner, Chicago, Ill.

Kling Exterminating Co., Chicago, Ill. Kretol Co., Inc., Washington, D. C. Krummenacher Drug Co., Clayton,

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, III. Leader Manufacturing Co., 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.) Long Island Sanitary Supply C

Woodside, L. I., N. Y. Los Angeles Chemical Co., Los Angeles, Calif.

Los Angeles, City of, Los Angeles, Calif. Louisiana Paper Co., Ltd., Shreveport,

Loveland Janitor Supply Co., Wichita, Kans.

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.

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

Point, N. C. Massasoit Chemical Co., The, Cincin-

nati, Ohio.

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

McKone Sales Co., Hartford, Conn. McLeod Exterminating Service, Rochester, N. Y.

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,

Nebr.

Miller Co., J. E., Wheeling, W. Va. Miller Products Co., Portland, Oreg. (In principle.)

Mil-Wis Chemical Co., Milwaukee, Wis. Manufacturing Miracle Co., Wayne, Ind.

Mirax Chemical Products Corporation, St. Louis, Mo. issanna Laboratories,

Missanna Inc., Little Rock, Ark. Monarch Printing and Supply Co.,

The, Marion, Ohio. (In principle.),
Moulder-Oldham Co., Inc., Tulsa, Okla.
Murtough Supply Co., Tacoma, Wash.
Myers Paper Co., Memphis, Tenn.
Nannene & Co., P., Chelsea, Mass.
Nash Medical Co., F. A., Galena, Ill.

National Chemical Co., New Orleans, National Cleanser Products Co., New

York, N. Y. National Disinfecting Co., New York, N. Y.

National Soap Co., Detroit, Mich. National Theatre Supply Co., Seattle,

Wash. New England Disinfectant Co., Inc.,

The, Boston, Mass. New Orleans, Inc., Better Bus Bureau of, New Orleans, La. Better Business (In principle.)

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

Newbro Drug Co., Butte, Mont. Newerking Cleaning Fluid Co., Inc., New York, N. Y. (In principle.) Newport Industries, Inc., General Naval

Stores Division, Pensacola, Fla. 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.

Memorial Hospital, Orange, Orange N. J.

Osgood Co., The Charles, Norwich, Conn.

Pacific Marine Supply Co., Seattle, Wash.

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

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

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, Commonwealth of, Department of Property and Supplies,
Harvichung Pee

Harrisburg, Pa. Pennsylvania Hospital, Philadelphia, Pa.

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

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

N. Y. 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, Maine.

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., John, New York, N. Y. (In principle.)

Practical Drawing Co., Dallas, Tex. Preiser Co., Inc., B., Charleston, W. Va. Premier Institutional Supplies Co., New York, N. Y.

Puro Chemicals, Inc., Cleveland, Ohio. Pynosol Laboratories, Inc., Chicago, Ill.

Quality Products Laboratories, Inc., Richmond, Va.

Range Paper Co., Inc., Virginia, Minn. Red Letter "J" Co., Germantown, Philadelphia, Pa.

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, L. I., 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.

Louis Janito 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 Fumigat-

ing Co., W. New York, N. J. Scientific Supply Co., Denver, Colo.

Scranton Better Business Bureau, Scranton, 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,

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. Soap and Chemical, Inc., Pittsburgh, Pa.

Solomons Co., Savannah, Ga.

Manufacturing Co., Cam-Solshine bridge, Mass. Compounds Co., Redwood Solvent

City, Calif.

Southern Chemical Co., Charleston, W. Va.

Southern Products Co., Chattanooga, Tenn.

Distributors, Mill El Southwestern Paso, Tex. Southwestern Seating Co., San An-

tonio, Tex.

Speare's Sons Co., The Alden, Cambridge, 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,

Star Drug Store, Galveston, Tex. Star Paper Co., Inc., Haverhill, Mass. Sterling Office and School Supply Co., Johnstown, Pa. Sterling Soap 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.

System Products Co., Chicago, Ill. T. & B. Soap Co., Milwaukee, Wis. 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., E. St.

Louis, Ill.

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

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

TryAid Chemical Products 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.
S. Termite Control Corporation, 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. Manufacturing Co., Vawter

Salem, Ill.
Vernon Drug Co., Middletown, N. Y.
Vestal Chemical Co., St. Louis, Mo. Victory Chemical C., 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.

Manufacturing Co., Waverly 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,

Whopper Sales, Buffalo, N. Y.

Wichita Broom and Floor Sweep Co., Wichita Falls, Tex. (In principle.) Wilbur Chemical Co., N. Bergen, N. J. Williams Chemical Laboratories, Springfield, Ill.

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

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m 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. Zahr Soap Manufacturing Co., Kansas

City, Mo. Zenoleum Products Co., Detroit, Mich.

#### U. S. GOVERNMENT

riculture, U. S. Washington, D. C. Agriculture, Department Treasury Washington, Department,

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) (sec-
5-29. Steel pipe nipples. 6-31. Wrought-iron pipe nipples (second edition).	ond 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 anthra-
9-33. Builders' template hardware (second edition).	cite (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. Fuel oils (fourth edition).	50-34. Binders board for bookbinding and other pur-
13-30. Dress patterns.	poses.
14-31. Boys' blouses, button-on waists, shirts, and junior shirts.	51-35. Marking articles made of silver in combina- 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).
18-29. Hickory golf shafts.	53-35. Colors and finishes for cast stone.
19-32. Foundry patterns of wood (second edition).	54–35. Mattresses for hospitals.
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- cocks, and stoppers (third edition).	57-36. Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except li-
22-30. Builders' hardware (nontemplate).	brary bindings.
23-30. Feldspar.	58-36. Woven elastic fabrics for use in overalls (over-
24-30. Standard screw threads.	all 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. 30-31. Colors for sanitary ware.	63–38. Colors for bathroom accessories. 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	66-38. Liquid hypochlorite disinfectant, deoderant,
Cedar).	and germicide.
36-33. Fourdrinier wire cloth (second edition).	69-38. Pine oil disinfectant.
37–31. Steel bone plates and screws. 38–32. Hospital rubber sheeting.	70-38. Coal tar disinfectant (emulsifying type). 71-38. Cresylic disinfectants.
39-37. Wool and part wool blankets (second edition).	
or or mode and part wood blankers (second edition).	12 00. Household inscended (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.

