



**American Water Works  
Association**

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**ANSI/AWWA B300-18**  
(Revision of ANSI/AWWA B300-10)

**AWWA Standard**

# Hypochlorites

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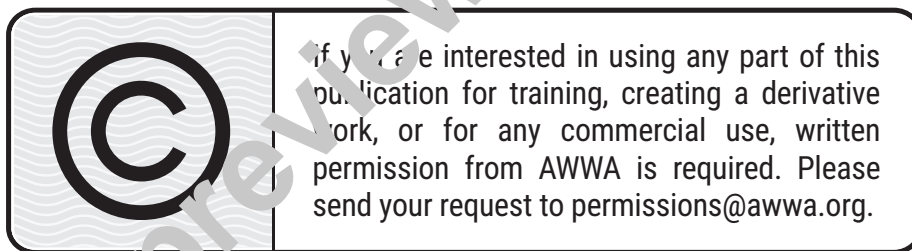
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The AWWA Standards Committee on Disinfectants, which reviewed and approved this standard, had the following personnel at the time of approval:

K. Blake Stark, *Chair*

### *General Interest Members*

K.-K. Au, FMC Global Peroxygens, Naperville, Ill.

N.J. Edman,\* Standards Group Liaison, AWWA, Denver, Colo.

M.C. Graves, HDR Engineering, Austin, Tex.

R. Hampaul, Indigenous and Northern Affairs Canada, Vancouver, B.C.

G. Ramon,\* Standards Council Liaison, Little Rock Wastewater, Little Rock, Ark.

M. Sivaganesan, USEPA, Cincinnati, Ohio

K.B. Stark, NSF International, Ann Arbor, Mich.

A. Waldron, CH2M, Englewood, Colo.

### *Producer Members*

M.C. Gibson, American Chemistry Council, Washington, D.C.

R. Ness, Olin Chlor Alkali Products, Charleston, Tenn.

D.S. Weatherup, De Nora Water Technologies Inc., Colmar, Penn.

### *User Members*

R.C. Lorenz, Westerville Water Plant, Westerville, Ohio

C.L. McLain, Consultant, Moorhead, Minn.

F. Noce, Lake County Department of Utilities, Painesville, Ohio

L. Olson, American Water, Voorhees, N.J.

P.R. Rienden, New England Water Works Association, Holliston, Mass.

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\* Liaison, nonvoting

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# Foreword

*This foreword is for information only and is not a part of ANSI/AWWA B300.*

## I. Introduction.

I.A. *Background.* “Hypochlorites” is used as an all-inclusive term for chlorinated lime, calcium hypochlorite, and sodium hypochlorite. A concise description of each chemical follows.

*Chlorinated lime:* 25 percent to 37 percent available chlorine. Other common names for chlorinated lime are bleaching powder and chloride of lime. Because it is an unstable material and is subject to deterioration from heat and moisture, it is not usually fed dry but as a 2 percent solution. Excess insolubles present in this solution must be separated by decantation before use. Storage in a cool, dry area, for no more than nine months, is advisable. Chlorinated lime is available in 100 lb (45.4 kg), 500 lb (136 kg), and 800 lb (363 kg) drums. Approximately 0.25 lb/gal (30 g/L) of chlorinated lime to water will produce a solution of approximately 1 percent available chlorine.

*Calcium hypochlorite:* 65 percent to 70 percent available chlorine. This material is unstable but more stable than the grade with 35 percent available chlorine. It is best fed as a solution. Its theoretical solubility is approximately 22 g/100 mL of water (18 percent) at room temperature; however, its practical solubility use is closer to 3 percent. Decantation is advisable before use because of the excess insolubles present. Storage in a cool, dry area is advisable but storage periods should not exceed one year. Calcium hypochlorite can lose 5 to 10 percent available chlorine in one year. It is available in 3 lb to 5 lb (1.4 kg to 2.3 kg) cans, 2 lb to 9 lb (0.9 kg to 4.1 kg) plastic containers, and 100 lb (45.4 kg) steel drums, and in granular powder, granule, and tablet form. Solubility tests that determine both rate and percentage should be conducted with particular emphasis on testing the tablets. Approximately 0.125 lb/gal (15 g/L) of calcium hypochlorite to water produces a solution of approximately 1 percent available chlorine.

*Sodium hypochlorite:* 12 percent to 20 percent available chlorine. Other common names for sodium hypochlorite are bleach, liquor, chlorine water, and Javelle water. Sodium hypochlorite will undergo some decomposition over time. There are numerous parameters that affect the rate of decomposition (see The Chlorine Institute<sup>†</sup> Pamphlet 96, *Sodium Hypochlorite Manual*).

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\* American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036.

<sup>†</sup> The Chlorine Institute Inc., 1300 Wilson Blvd., Suite 525, Arlington, VA 22209.