



Designation: E1229 – 21

Standard Specification for Calcium Hypochlorite¹

This standard is issued under the fixed designation E1229; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification covers technical-grade calcium hypochlorite in granular form.

1.2 The following applies to all specified limits in this specification: for purposes of determining conformance with this specification, an observed value or a calculated value shall be rounded off “to the nearest unit” in the last right-hand digit used in expressing the specification limit, in accordance with the rounding-off method of Practice E29.

1.3 *Units*—The values stated in SI units are to be regarded as standard. The values given in parentheses are for information only.

1.4 Review the current Safety Data Sheets (SDS) for detailed information concerning toxicity, first aid procedures, handling and safety precautions.

1.5 The following safety hazards caveat pertains only to the test methods listed in Sections 3 – 5. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards*:²

D1921 Test Methods for Particle Size (Sieve Analysis) of Plastic Materials

¹ This specification is under the jurisdiction of ASTM Committee D16 on Aromatic, Industrial, Specialty and Related Chemicals and is the direct responsibility of Subcommittee D16.13 on Chlorine.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

D2022 Test Methods of Sampling and Chemical Analysis of Chlorine-Containing Bleaches

E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

2.2 *Other Documents*:

CFR 49, Parts 100 to 199, Department of Transportation, Rules and Regulations for the Transportation of Hazardous Materials³

Federal Specification PPP-C-2020A Chemicals, Liquid, Dry, and Paste, Packaging of (superseding PPP-C-2020)⁴

3. Requirements

3.1 Technical-grade granular calcium hypochlorite shall conform to the following chemical and physical requirements:

Property	Specification	ASTM Test Method
Available Chloride, mass % (m/m)	65.0 min	D2022
Moisture, mass % (m/m)	5.5 to 10.0	D2022
Particle Size, through U.S. 14 mesh, min %	75.0	D1921
through U.S. 100 mesh, max %	10.0	D1921
		(Method B)

4. Sampling

4.1 Sample technical-grade granular calcium hypochlorite in accordance with the appropriate section of Test Methods D2022.

5. Test Methods

5.1 Test each composite sample for the chemical and physical requirements listed in Section 3.

6. Packaging and Labeling

6.1 Industrial or commercial quantities shall be packaged and labeled in accordance with DOT Hazardous Materials Regulations CFR 49, Parts 100 to 199, and state and local regulations.

³ The Code of Federal Regulations may be obtained from the U.S. Government Printing Office, 732 N. Capitol St., NW, Washington, DC 20401, http://www.gpoaccess.gov/CFR/index.html.

⁴ Single copies of Federal Specifications required for bidding purposes are available without charge from General Services Administration Business Service Centers in Boston, MA; New York, NY; Washington, DC; Philadelphia, PA; Atlanta, GA; Chicago, IL; Kansas City, MO; Forth Worth, TX; Houston, TX; Denver, CO; San Francisco, CA; Los Angeles, CA; and Seattle, WA.

*A Summary of Changes section appears at the end of this standard

6.2 When specified, Department of Defense procurements shall be packaged and labeled in accordance with the applicable paragraphs of Federal Specification PPP-C-2020A.

7. Keywords

7.1 calcium hypochlorite

SUMMARY OF CHANGES

Committee D16 has identified the location of selected changes to this standard since the last issue (E1229 – 16) that may impact the use of this standard. (Approved June 1, 2021.)

- (1) **1.2** – added section.
- (2) **3.1** – added “property” and “specification” to table header. Weight % should be corrected to state mass %, so removed “(% by wt)”.

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