

METRIC

A-A-55820B

12 MAY 2015

SUPERSEDING

A-A-55820A

16 February 2011

COMMERCIAL ITEM DESCRIPTION

ORTHOPHOSPHORIC (PHOSPHORIC) ACID, TECHNICAL

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. **SCOPE.** This commercial item description (CID) covers two classes of technical grade orthophosphoric (phosphoric) acid, Chemical Abstracts Service (CAS) Registry Number 7664-38-2.
2. **CLASSIFICATION.** The orthophosphoric (phosphoric) acid shall conform to the following classes, as specified (see 7.3(b)):
 - Class 1 - 85 percent acid
 - Class 2 - 75 percent acid

3. SALIENT CHARACTERISTICS

3.1 Chemical and physical characteristics. Orthophosphoric (phosphoric) acid shall conform to the chemical and physical characteristics of table I, except "Alkali and other phosphates", when tested using the methods and procedures of the American Chemical Society (ACS), "Reagent Chemicals, American Chemical Society Specifications". "Alkali and other phosphates" shall be tested in accordance with 3.1.1.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent to DLA Aviation, VEB, 8000 Jefferson Davis Highway, Richmond, VA 23297-5616 or e-mailed to STDZNMGT@dla.mil . Since contact information can change, you may want to verify the currency of this address information using the ASSIST database at https://assist.dla.mil .
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TABLE I. Chemical and physical characteristics.

Characteristics	Class 1	Class 2
Assay (as H ₃ PO ₄)	≥85.0%	≥75.0%
Sulfates (as SO ₄)	≤0.35%	not specified
Arsenic (As)	≤0.001%	≤0.06%
Alkali and other phosphates	≤0.25%	not specified
Heavy metals (Pb)	≤0.005%	not specified
Volatile acids (as acetic acid)	not specified	≤0.10%
Specific gravity at 20°/4 °C	≥1.690	≥1.580

3.1.1 Alkali and other phosphates. Weigh to the nearest 0.01 g approximately 5 g of the specimen into a 250 mL Erlenmeyer flask. Add 100 mL of 95-percent ethyl alcohol, stopper, and allow to stand for 1 hour at 20° to 30°C. Filter through a tared, clean, dry filter crucible weighed to the nearest 0.1 mg and wash with 95-percent ethyl alcohol until the filtrate no longer shows acid with moistened blue litmus paper. Do not allow the filter to run dry during the filtering and washing operations. Dry the filter crucible and residue to constant weight at 100° to 105°C, cool, and weigh to the nearest 0.1 mg. Calculate the percent by weight of alkali and other phosphates as follows:

$$\text{Percent alkali and other phosphates} = 100 (A-B)/W$$

Where A = Weight of filter crucible and residue in grams

B = Weight of fiber crucible in grams

W = Weight of specimen in grams.

4. REGULATORY REQUIREMENTS

4.1 Labeling, packaging, and marking. Items shall be labeled, packed, and marked in accordance with 49 Code of Federal Regulations (CFR), Parts 100 to 199.

4.2 Recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

4.3 Safety data sheet (SDS). A SDS shall be furnished in accordance with FED-STD-313, "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", and 29 CFR 1910.1200, "Hazard Communication".

4.4 Hazard warning label. Occupational Safety and Health Administration hazard warning label shall be furnished in accordance with 29 CFR 1910.1200.

5.1 Product conformance. The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance.

6. PACKAGING

7. NOTES

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Class: A - 1 - 85 percent acid
B - 2 - 75 percent acid

CID Number

7.2 Sources of documents.

7.2.2 Federal standards. Copies of federal standards are available online at <http://quicksearch.dla.mil>.

7.2.3 ACS specifications. Copies of ACS specifications are available online at <http://www.acs.org/>.

7.2.4 CAS registry numbers. Copies of CAS registry numbers are available online at <http://www.cas.org/>.

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7.3 Ordering data. The acquisition order should specify the following information:

- a. CID document number, revision, and CID PIN.
- b. Class (see 2).
- c. Unit quantity required.
- d. Packaging requirements (see 6.1).

7.4 Subject term (key word) listing.

Assay
Chemical

MILITARY INTERESTS:

Custodians:

Army - EA
Navy - SH
Air Force - 68
DLA - GS

Review Activities:

Army - AV, MD
Navy - MC, SA, YD

CIVIL AGENCY
COORDINATING ACTIVITY:

GSA - FAS

Preparing Activity:

DLA - GS3

(Project 6810-2015-010)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST database at <https://assist.dla.mil/>.